Spatial Effects of Controlling Security Measures in Places of Mass Gathering

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Abstract

This project examines the spatial effects of controlling security measures in places of mass gathering, specifically public squares, and develops a generalised framework for evaluating these effects in other spaces. Over the first decades of the twenty-first century there has been a rapid and transformative shift in perceptions of threat and national security, particularly in the west, towards preemption. This reactionary shift has introduced new motivations behind controlling security measures, amplifying tensions between security imperatives and rights to the city. Security in public space is not new, but in recent years there has been an increase in protective security interventions and a tightening of rules about acceptable behaviours. This project is motivated by a lack of understanding of the small-scale, spatial impacts of national security imperatives and the global doctrine of preemption on the fabric and lived experiences of urban places.

This research employs a multiple case study analysis method to reveal generalised spatial conditions and security effects. The case study sites are Federation Square in Melbourne, Trafalgar Square in London, and Hashemite Plaza in Amman. Twelve security measures were investigated at each site, within three broad categories – panoptic devices, regulatory procedures and fortress measures. Primary source data was collected as spatial observations in the form of mapping, photographing and analysing. Each site was visited over several days during different conditions, times and events. At each visit the spatial layout of security measures was observed and noted, including how they interact with and effect each other, people and events in the space. Historical research into each site explains their development; the process of securitisation; and their varied historical, social and cultural contexts.

This research reveals generalised patterns of control and power relations across diverse global sites, expressed through controlling security measures. Unexpectedly, the most insidious spatial control technique is site branding. This is the fixing of a preferred identity to a place, defining sanctioned behaviours and excluding deviating behaviours or competing spatial identities. This research explores how the political impacts the socio-spatial and is located at the intersection of urban theory, with social and political science. It contributes to the existing body of knowledge by introducing an analysis method that can be applied to other sites, and expands the existing literature geographically, and to include small scale analysis of public spaces. Opportunities for further research includes analysis of the continued development of the case study sites as new threats emerge, and the focus of global and national security shifts. While global threats today are different than when this research began, security responses continue to be characterised by control of human behaviour in public space.

Declaration

This is to certify that:

1. The thesis comprises only my original work towards the PhD
2. Due acknowledgement has been made in the text to all other material used
3. The thesis is fewer than 100,000 words in length, exclusive of tables, maps, bibliography & appendices



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1. Introduction

There have been 82 pieces of anti-terror legislation enacted in Australia since September 11, 2001.[1] Living in Melbourne, Australia I have often felt that our distance and our isolation insulated us against impacts of global conflicts and political unrest. While Australians have sent troops and support to global conflicts including both World Wars, the Vietnam and Gulf Wars, we have generally travelled towards conflict rather than face it at home. However, in the years since September 11, external concerns such as trans-national terrorism have become part of our internal conversation and political debate. The September 11 attacks had a profound impact on the next few years of political and social discourse both in the USA and elsewhere.[2] The impact on public space was immediate as access was limited and uses restricted in the name of national security.[3] The tension between security imperatives and free use of public space has continued. Australia immediately became involved in the US-led global 'War on Terror' and the subsequent military action in Afghanistan and Iraq. Meanwhile, at home, governments looked to our own national security infrastructure and rapidly began implementing new legislation and reforming relevant agencies. The 82 new pieces of legislation in less than 20 years speak to hasty attempts strengthen the law to cover acts of terrorism. In the same period, Australia's Defence budget increased by 291% and the budget for intelligence agencies ASIO and ASIS increased 528% and 578% respectively.[4]

As an architect and urban dweller, I became interested in the impacts of this changing security conversation on the fabric of the city and my lived experience of urban life. Because of the abstract and ill-defined nature of terrorism, previously innocuous aspects of everyday life became potentially threatening. I felt there was a rapid reactionary and transformative shift in our perception of safety in the world, and attitudes towards space, place and public life. The impacts of this shift increased with time, having a layering effect within space and amplifying tensions between security and rights to the city.[5] I was able to experience the spatial impacts of controlling security firsthand, while travelling through Egypt during the 2013 military coup and subsequent political unrest. My interest in the increasing control and securitisation of urban space, and the spatial outcomes of this, at home and elsewhere formed the seed of this research project.

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[1] Nicola McGarrity and Jessie Blackbourn, "Australia Has Enacted 82 Anti-Terror Laws Sonce 2001. But Tough Laws Alone Can't Eliminate Terrorism.," (The Conversation, 2019). And Jessie Blackbourn and Nicola McGarrity, "Australian National Security Law," https://ausnatsec.wordpress.com/.

[2] Anthony Vidler, "A City Transformed: Designing 'Defensible Space'," *Grey Room* (2002).

[3] Daniel J Walkowitz and Lisa Maya Knauer, eds., *Memory and the Impact of Political Transformation in Public Space*, Radical Perspectives (Durham: Duke University Press, 2004). 1-2.

[4] Melissa Conley Tyler and Mitchell Vanerwerdt-Holman, "Australia Is Spending Less on Diplomacy Than Ever before - and Its Influence Is Suffering as a Result," in *Australian Outlook* (Canberrra: Australian Institute of International Affairs, 2019).

[5] Walkowitz and Knauer, *Memory and the Impact of Political Transformation in Public Space*. 1-2.

This research project intends to examine and understand the spatial effects of controlling security measures in places of mass gathering, and to develop a generalised framework for evaluating these effects in other spaces.

1.1 Key Terms

This research project engages with some discipline-specific terms, and others that have both a general meaning and a specific usage. This section provides a brief description of some key terminology to explain how it is used in this project. Concepts such as power, security, terrorism and pre-emption are further explored in Chapter 2 within the context of relevant literature.

Power

Power is a widely used term in this project. The term can be used widely to describe effects, capacities, emancipation, and authority.[6] For this project, 'power' is generally used to refer to control and authority as forms of power over. This work is interested in the effects of the application of this type of power in public space.

Controlling security measure

I use this term to refer to any strategy or physical feature that constrains, restricts, monitors, prevents or otherwise controls certain unwanted behaviours for the stated purpose of security. For this research, controlling security measures include fortification measures, regulations, and surveillance.

Control is an exercise of power over other actors or situations.[7] 'Power over' suggests a relationship – in this case the relationship is between authority and the general public, and it plays out in the way that public spaces are managed, and the measures used to do so.

Place of Mass Gathering

Places of mass gathering (PMGs) are a type of public open space that attract large crowds, that are sometimes temporary or transient, and include places like squares, plazas, shopping centres and malls, train stations and other transport infrastructure hubs, and stadia. PMGs are often referred to simply as crowded places as a plain-language term for communication with the public.[8]

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[6] Kim Dovey, *Framing Places: Mediating Power in Built Form*, Second ed., Architext (Oxon: Routledge, 2008). PP11-12.
[7] Ibid. PP11-12.
[8] "Protecting Crowded Places: Design and Technical Issues," ed. Centre for the Protection of National Infrastructure and National Counter Terrorism Security Office (London: Home Office, 2012). And Commonwealth of Australia, "Active Armed Offender Guidelines for Crowded Places," ed. Australia-New Zealand Counter-Terrorism Committee (Canberra: Attorney-General's Department, 2017).

Preemption

Preemption refers to actions in response to potential threats that have not yet emerged as real dangers. It goes beyond both prevention and response because it operates in the realm of possible futures. It is an attempt stop an imagined future event from coming into being.

Public Space

For this project, 'public space' refers to any area that is public in both ownership and use. This work focuses on urban areas, specifically 'squares' as a typology of public, open place of mass gathering. A concise and useful definition of 'public space' is provided by Janset Shawash, as "areas that are accessible to the public, both physically and symbolically."[9] Contemporary ideas about public space can be traced back to the ancient *polis*, encompassing common places and the citizens that used them.[10] For this project, public space also encompasses the activities and social behaviours that the space supports. Public spaces provide opportunities for collective identity formation and political negotiation.

Security

Security, for the purposes of this study, relates to physical and legislative infrastructure that serves a defensive, preventative and/or preemptive function. Security relates more to a systems approach to managing threat and risk; differing from safety which relates to an absence of danger.

Spatial logic

A spatial logic is an arrangement of elements organised in a place which can change in relation to events in the space. It is a dynamic relationship between physical object and event that plays out in a spatial field. Without the influence of events, the distribution of objects in space would be better described as a visual language. The term 'spatial logic' has a mathematical meaning that relates to geometry and topology, which is instructive but not directly relevant to this research.[11] A more relevant resource relates spatial logics to a dialectic between social and physical space.[12] This philosophical view point describes a topology of social space in relation to structures of physical space. The term is useful in this research to describe generalisable relationships.

[9] Janset Shawash, "Al-Balad as a Place of Heritage: Problematising the Conceptualisation of Heritage in the Context of Arab Muslim Middle East" (University College London, 2011). P35.
[10] Rochus Hinkel, "Private Encounters and Public Occupations: A Methodology for the Exploration of Public Space," in *Urban Interior: Informal Explorations, Interventions and Occupations*, ed. Rochus Hinkel (Baunach, Germany: Spurbuchverlag, 2011). NP.
[11] Marco Aiello, Ian Pratt-Hartmann, and J. F. A. K. van Benthem, eds., *Handbook of Spatial Logics* (Dordrecht: Springer, 2007).
[12] Nikolaus Fogle, *The Spatial Logic of Social Struggle: A Bourdieuian Topology* (Lanham (MD): Lexington Books, 2011).

Spatial outcomes

This term is used in this research project to refer to the impacts of controlling security measures on how the space is perceived, presented, used and experienced.

Terrorism

Attempting to define terrorism has historically been a fruitless endeavour, however some argue that a precise definition is both possible and necessary in order to adequately combat terrorism.[13] This research only requires a workable definition that describes the relevant impacts of terrorism on approaches to security in public spaces. For the purposes of this work, terrorism is a violent strategy that creates fear as coercive propaganda for a wide audience, beyond the immediate victims.[14] It is most effective in urban areas with high population density, vulnerable infrastructure, and witnesses.[15] In short, terrorism is coercive violence that visibly targets crowded urban spaces.

1.2 Motivation and Problem

I am motivated to address a lack of research, within urban design and theory, into the small-scale spatial impacts of national security imperatives and the global doctrine of preemption. This is important because the spatial outcomes have an impact on the way we experience our everyday lived spaces in urban space. By exploring these impacts at diverse sites, I hope to understand patterns and generalised controlling measures. The reactionary transformation of public life towards increased security and control occurred as a direct response to the events of September 11, 2001. The significance of this event for cities, including the design and management of public places and buildings, was identified very soon after it occurred.[16] Through the late-twentieth century terrorism was gradually shifting towards an urban phenomenon, exemplified by the events of September 11 which brought the phenomenon into the forefront of public, political and urban discourse.[17] The shift I noticed in my everyday life in Melbourne was mirrored globally as the social, political, economic and spatial ramifications of urbanised terrorism became central issues for cities. Securitising urban places is a preventative measure, aimed at stopping terror threats and mitigating their impact should they occur.

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[13] Boaz Ganor, "Defining Terrorism: Is One Man's Terrorist Another Man's Freedom Fighter?," *Police Practice & Research* 3, no. 4 (2002).

[14] Charles Tilly, "Terror, Terrorism, Terrorists," 2004. And Alex P. Schmid, *The Routledge Handbook of Terrorism Research* (Oxon: Routledge, 2011). P61.

[15] Jon Coaffee, *Terrorism, Risk and the Global City: Towards Urban Resilience* (Farnham: Ashgate Publishing, 2012).

[16] H. V. Savitch, "Does 9-11 Portend a New Paradigm for Cities?," *Urban Affairs Review* 39, no. 1 (2003).

[17] Ibid. See also H. V. Savitch and Grigoriy Ardashev, "Does Terror Have an Urban Future?," *Urban Studies* 38, no. 13 (2001). Edward L. Glaeser and Jesse M. Shapiro, "Cities and Warfare: The Impact of Terrorism on Urban Form," *Journal of Urban Economics* 51 (2002). Stephen Graham, *Cities, War, and Terrorism: Towards an Urban Geopolitics*, Studies in Urban and Social Change (Malden, MA ; Oxford: Blackwell Publishing, 2004).

During the global war on terror, the conversation about preventing future threats on the scale of September 11 moved towards a conversation about how governments might act preemptively in advance of terror attacks. This means that agencies should act on intelligence regarding possible impending attacks.[18] If US intelligence communities had acted on the information they had gathered about the September 11 terrorists could the attack have been prevented?[19] The other side of this is whether it is justifiable to pre-emptively attack in order to stop a likely threat. These questions play out at a global scale and influence national and international policy including wars. However, the influence of these ideas can be observed at the smaller scale of local urban places that demonstrate an increasing range and volume of security measures. The shift towards preemption has meant that security measures are applied without discrimination between imminent and possible threats. This research is interested in how everyday life in urban spaces is shaped by preemptive politics.

Recent terror attacks in western cities including Boston (2013), Paris (2015), Brussels (2016), London (2005 and 2017), Manchester (2017), Strasbourg (2018) and Christchurch (2019) have fuelled public discussion about security and fears of further attacks. Some of these attacks (after 2016) occurred while researching this thesis. Attacks such as these have contributed to, and provided justification for, a renewed securitization of western cities.[20] While the total number of terror attacks globally has decreased in recent years the number of casualties has increased.[21] Interestingly, the nature of the terror threat is evolving with the recent steady increase in far-right extremism.[22] The complex reasoning behind the shifting nature of the terror threat is outside the scope of this project. However, it is worth noting that this shift has little bearing on the approach or outcomes of this project as it does not impact on the application of security measures or their spatial outcomes.

The identified knowledge gap is a problem within urban / architectural theory and practice as it limits understanding into the impacts of global issues on local places. I am interested in how the reactionary shift towards security since September 11 affects my relationship with the world around me. Specifically, how public behaviour and bodies in space are regulated and controlled, and the spatial impacts of preemptive security. There is existing literature regarding the dialogue between space and human emotion – the way that space affects emotion and in turn how emotions shape space. Security is an element of this dialogue; the increasing implementation of security changes the conversation.

[18] Richard Shultz and Andreas Vogt, "It's War! Fighting Post-11 September Global Terrorism through a Doctrine of Preemption," *Terrorism and Political Violence* 15, no. 1 (2003).
[19] Ibid.
[20] Deane Simpson, Vibeke Jensen, and Anders Rubing, *The City between Freedom and Security: Contested Public Spaces in the 21st Century* (Basel, Switzerland: Birkhauser, 2017).
[21] Erin Miller, "Trends in Global Terrorism," ed. START: National Consortium for the Study of Terrorism and Responses to Terrorism (University of Maryland, 2019).
[22] Ibid.

Emotive dialogue between space and people is a helpful area of research but it does not help to illuminate the specific impact of preemptive logic and contemporary counter terrorism. Similarly, there is a large body of literature that seeks to improve security measures and make places safer – both public urban spaces and buildings. However, this literature contributes to the situation of security infrastructure infiltrating and modifying the way that public space is used and experienced. I am not motivated by a desire to add more security infrastructure to public spaces. Rather, I want to better understand the spatial outcomes of measures on experience, use and the implied freedoms of citizenry and the right to the city.[23] Increased securitisation impacts on the physical space of cities, as well as people's access to and free use of public space.[24] Constrained public spaces are limited in their ability to facilitate negotiations of power relations, which is essential to the growth of community.[25]

While my motivation for this study emerged from my lived experience in Melbourne, I was interested to discover if similar spatial impacts of security could be observed at different places in the world. In other words, is there a generalised way that public spaces are controlled and secured? And if so, how does this impact the site-specific uses and meanings of diverse places? I also became curious about how much the increasing security I observed was driven by the reality of the threat situation. Or, if it was reactive – a response to fear and paranoia in the public and the desire of governments to appear to be doing enough. Public spaces, such as PMGs, are relevant to global and national-level security thinking because they are high-risk locations for terror attacks. PMGs have a high civilian occupation and are prominent spaces that often perform a symbolic, representative function and as landmarks. Terrorism takes advantage of the symbolic function of PMGs and their crowded nature. The violence has a twofold effect – the trauma and loss caused by the attack itself, and the production of fear of possible future attacks. Symbolic sites receive more media attention and attacks in those places are more effective at stoking fear in the public of future attacks. It is this anticipatory fear of potential future violence that temporally extends security measures into the imagined future space of pre-emption. Preemptive security renders public spaces into spatio-temporal heterotopias in a state of tension.[26] I am motivated for this study to explore the impacts of pre-emption of the way that everyday lives are conducted in public urban space. What restrictions apply to how people occupy and behave in space? How is the space itself shaped and restricted by the influence of security measures?

[23] David Harvey, "The Right to the City," *New Left Review* 53, no. September-October (2008).
[24] Simpson, Jensen, and Rubing, *The City between Freedom and Security: Contested Public Spaces in the 21st Century*. p11.
[25] Ibid. p12. And K. Iveson, "Social or Spatial Justice? Marcuse and Soja on the Right to the City," *City* 15, no. 2 (2011).
[26] Michel Foucault, "Of Other Spaces, Heterotopias," in *Conférence au Cercle d'études Architecturales* (1967). And Michiel Dehaene and Lieven De Cauter, *Heterotopia and the City: Public Space in a Postcivil Society* (Hoboken: Taylor and Francis, 2008).

The factors that I am interested in exploring, within this wider theoretical area, are the small-scale spatial impacts of large-scale global political theories and imperatives.

The relevant existing literature that I have reviewed does not thoroughly explore the spatial impacts of increased securitisation, particularly as a result of preemptive security thinking. Furthermore, the general geographic focus of most research into urban security and contemporary terrorism, that I have access to, is Europe and the USA. There is limited research that examines the Australian context; the available literature that does refer to Australia is generally within the fields of social and political science and criminology. My interest lies at the intersection of these fields with urban theory and practice, and how the political impacts the spatial. This is a problem because it makes it difficult to understand what is happening locally. It is difficult to understand the pervasiveness of preemptive logics when most of the research is focused on one area of the world. I am interested in understanding how spaces have been shaped / morphed / adjusted to meet growing and expanding security imperatives. I am interested in how I, as a user of public space, am controlled and how I am treated as simultaneously representing a threat and a possible victim of threat. And, I am interested in how I am also co-opted into becoming part of the security infrastructure within these places.

1.3 Study Aims

The primary aim of this research is to identify impacts of controlling security measures in individual PMGs and assess whether these effects are generalisable across multiple sites. This study intends to reveal and understand the spatial outcomes of global security and preemptive theory and practice within PMGs. This exploration is intended to address the hypothesis that there are generalisable spatial effects of security measures across varied case study sites. In order to test this hypothesis and address the aim of the study, I have carried out a multiple case study analysis of the historical development and existing conditions of controlling security measures in three global sites. The method and case study analysis are described more thoroughly in Chapter 3.

The secondary aim is to test the utility of isometric diagram maps as a tool of both representation and data analysis. The mapping technique is used to record the data found during the site visits, and to represent various aspects of that data is multiple ways to assist the analysis.

1.4 Limits on Scope

There are limits to the scope of the research that should be noted from the beginning. I will not be attempting to design or improve on existing controlling security measures. The study is based on historical research and data collected as on-ground / at site observations. In other words, I will not be attempting to uncover and describe the full extent of security infrastructure that exist in public spaces

beyond what is visible. This is not a technical study into processes and capabilities of intelligence, policing and security operations. Nor does it attempt to explain *how* various security measures function. This research project does not make attempt to make value judgements or assessments of the quality or benefit of various security techniques. The scope of this study is the spatial impacts of security measures (often driven by preemption) and their generalisable application across diverse case study sites. There is a need for these limits because the subject is transdisciplinary and global in scope. Urban security is a growing area of research. The limits applied to the scope of the work will maintain its focus and aim of addressing the problem as described.

1.5 Significance of the Study

This research is relevant as an analysis of a contemporary spatial condition, and as original research into contemporary manifestations of power relations. The originality of this work is supported by innovative mapping techniques, with diagrams used as tools of representation, analysis, and knowledge generation. There are several intended outcomes of the study that contribute to its significance at a theoretical and a practical level. One outcome is the development of a generalised, theoretical understanding of the spatial impacts of preemption and controlling security measures that can be applied and replicated at other sites globally. Security is a growing concern not just amongst security experts, urban designers and leaders but for the broader public. This project contributes to the existing discourse on secure design, but rather than seeking to design secure spaces it seeks to understand the impacts of control, and explore a generalised language of security across urban sites. Control is a tool of security that allows security thinking to infiltrate everyday spaces and manifest physically as controlling features and techniques.[27] The constraints of security apparatus can adversely impact negotiated spatial identity and the site-specific system of objects, people, events and relationships that comprise public space. At the same time, security measures can contribute positively to public space by increasing pedestrian areas or provide environmental benefits such as additional greenery.[28] However, positive side effects do not mean the space is any less constricted, they just make that control more palatable. This project explores the physical manifestation of power as control measures.

This work sits within the fields of spatial design and theory, primarily urban but with an understanding of relevant architectural sources. While it is located in the urban/architectural field, this work necessarily engages with security practices, history and legal theory. An intended outcome of this work

[27] Chowra Makaremi, "Utopias of Power: From Human Security to the Responsibility to Protect," in *Contemporary States of Emergency: The Politics of Military and Humanitarian Intervention*, ed. Didier Fassin and Mariella Pandolfi (New York: Zone Books, 2010).

[28] Simpson, Jensen, and Rubing, *The City between Freedom and Security: Contested Public Spaces in the 21st Century*. P9. And Dovey, *Framing Places: Mediating Power in Built Form*. P2.

is the extension or advancement of existing discourse and knowledge in this area. And the further development of a cross-disciplinary discourse that rejects the existing theoretical and practical separation between security experts and spatial designers and theorists. While this gap is narrowing, it remains a developing area that would benefit from further exploration and collaboration. There is opportunity for more cross-disciplinary work that encourages a collaborative approach between security agencies and urban theorists and practitioners. This research intends to strengthen the influence of urban theorists and practitioners on the way public space is controlled. And, it will make an original contribution that addresses existing gaps in the relevant literature. There is a content gap, where the literature has prioritised risk mitigation and prevention in specific situations over thorough analysis of the impacts of accretions of controlling security measures in PMGs. This doesn't adequately explain the power structures that legitimise controlling security measures in public space; nor does it account for similarities in security and counterterrorism measures across cities with different threat contexts. Additionally, most urban security and threat research examines Western Europe, the USA and Israel. This research extends the literature geographically to include Australia and Jordan. This re-contextualises existing strategies and theories by applying and testing them in new places with different risk profiles. On a practical level, this research develops a greater understanding and exploration of security, pre-emption and defensive urban space in parts of the world that have not traditionally been a focus for this type of research and analysis. This research project engages with non-traditional methods and theories of site analysis, challenging the post-modern view of space as text.[29] Drawing on Andrea Kahn[30] and others, this project approaches site as a system of objects and relationships that are to be uncovered. This research reveals the range of impacts stemming from increased securitisation of public space; and contributes to the existing body of literature regarding security and urban space.

1.6 Overview

This thesis is structured in four parts. The first part, chapters 2 and 3, situates the study in relation to established discourse across relevant fields of study, and outlines the chosen methods of research and analysis. Chapter 2 sets up the theoretical framework within which this work is situated and discusses the theoretical underpinnings of my cross-disciplinary, observational research approach. Following this is an examination of relevant discourse and literature including theories of space, particularly conflict in urban space and how cities are shaped by politics, violence and emotion. Reviewing the

[29] Bryan Lawson, *The Language of Space* (Oxon: The Architectural Press, 2001). PP3-4.

[30] Andrea Kahn, "Overlooking: A Look at How We Look at Site," in *Desiring Practices: Architecture, Gender, and the Interdisciplinary*, ed. Katerina Ruedi, Sarah Wigglesworth, and Duncan McCorquodale (London: Black Dog Publishers, 1996). P177.

literature provides a theoretical basis and context for the research project. Chapter 3 sets out the research method and research design. This research utilises spatial observation, historical research and comparative analysis of security measures at three case study PMGs – Federation Square in Melbourne, Trafalgar Square in London, and Hashemite Plaza in Amman.

The second part, chapters 4-6, examines each of the case study sites in turn, and Chapter 7 provides comment that brings the different sites together. Each chapter provides a description and historical overview of the case study site to situate the research within a socio-spatial context. The historical overviews contextualise the purpose, intention and development of each case study site and how they fit into their broader urban and national context. Historical context includes an overview of the regulatory and threat environment, and a discussion of relevant events that have influenced the approach to security at each site. Next, the research process and experience that was undertaken is presented, and an overview of the collected data is outlined. This begins the process of understanding the spatial observations and examines how security measures operate on the theoretical time scales of prevention, response and preemption. Finally, the effect of security measures in small-scale situations is examined. Sub-areas of each site are reviewed in closer detail to analyse and describe the operation and effect of controlling security measures.

Chapter 8 takes a comparative analysis approach that directly reviews the sites against each other to identify patterns in the location and concentration of types of security, and the effects on spatial typologies across each place. This section builds on the previous, which discussed the sites in isolation, by comparing the operation of security measures in each place to identify patterns and generalisable effects.

The final part of the thesis, chapter 9, synthesises the results of the study and demonstrates how the research has addressed the aims and motivation of the study, and presents the results of this project and identifying areas of relevant further work. There are opportunities for further work in this area that builds on the work of this thesis by applying the approach to other sites, and by exploring related queries that were outside the scope of this study.

1.7 Authors Note – July 2020

The majority of this research project was undertaken prior to the emergence of the global coronavirus / COVID19 pandemic. The final stages of completing, editing and reviewing the work are being undertaken in a vastly different world than when the study commenced. Discussion of public space and public life in this project reflects a pre-COVID-19 world. It is acknowledged that experience of shared spaces, events and experiences throughout the world will be very different for some time and

may never return to ‘normal’. I cannot imagine how the post-COVI-19 world is going to look, and how it will be different to life before. But the immediate impacts are a rapidly emerging, unprecedented level of control over people and place in the face of an unprecedented public health threat. The effects on public life and social connection would have been unfathomable even six months ago. Restrictions such as public and private gathering limits, curfews, quarantines, and the forced closure of businesses have occurred globally. There is also an impact on research, particularly fieldwork in public space and access to resources, that will affect how place is studied and understood. I recognise the difficulties my colleagues, and the wider academic community, are currently facing.

This research and its conclusions will remain relevant in the ‘new normal’. Current controlling security measures are an extension of those that have already been observed, and are discussed in this project. They are supported and enforced by the same power structures. The methods of analysing space used in this research would be relevant to spatial analysis in the post-COVID-19 world. An interesting follow up to this work would be a review of how each case study site has been permanently impacted by additional control measures implemented during the pandemic. However, that will need to wait until the normal is established.

2 Critical Summary of the Relevant Literature

This chapter explores a theoretical and methodological framework to contextualise this project and situate it within existing research into control, security and places of mass gathering. This project engages with literature across a range of disciplines and the relevant research context is broad. As such, this chapter seeks to briefly examine pertinent threads of enquiry across several fields of study to demonstrate how this work engages with these existing discourses. Relevant site-specific literature for each of the three case study sites will be discussed at Chapter 3; this chapter explores the broader context.

2.1 Conceptual Framework

This research explores controlling security measures within public space, that also function conceptually across different time scales. This research project focuses on three points in the time surrounding a security threat event. *Response* actions look into the past, responding after an event has occurred. *Prevention* works in the present, while the threat event is occurring, and works to contain it and stop it from worsening. *Preemption* looks into an imagined future, acting before a threat has emerged to stop it occurring. The conceptual framework of preemption establishes an understanding of spatial-temporal practices of power – either through counterterrorism measures, or by the rupturing of control and security through the power of the terrorist act.[31] The doctrine of preemption could explain why places with little to no historical experience of terrorism utilise counterterrorism measures comparable to those used in places with extensive experience of terror attacks. Preemption allows defence to move forward in time and respond prior to a threat emerging as a real danger; controlling space physically as well as temporally. Contemporary PMGs controlled by preemptive counterterrorism constitute heterotopias of anticipatory tension characterised by the constant presence of fear of potential emerging threats.

The theory of preemption is important for two reasons: firstly, what it does to space; and secondly, what it does to people. Spatially, preemption is part of a continuum of spatio-temporal power and control practices. Response practices respond to events that have happened (in the past), practices of prevention mitigate events that are already happening or emerging (present), whereas preemption acts on events that have yet to emerge to reality (future). Usually, preemption turns an unknown, potential future threat into something with influence in the actions of the present. An important property of preemption is that it brings possible futures into reality in the present. The existence and influence of preemption is found by identifying spatial logics of control that can't be explained by

[31] Brian Massumi, *Ontopower: War, Powers, and the State of Perception* (Durham: Duke University Press, 2015).

socio-cultural and historical context. By exploring preemption as an agent of spatial change rather than as a defensive motivation this research opens up the possibility of the radical non-presence of the future in the spatial fabric of the present. Regarding its effect on people, preemption creates a situation wherein users of space are considered as both potential perpetrators and potential victims of possible future events. This creates an equality of treatment between the everyday civilian and the actual future perpetrator. The *potentially* guilty is treated as equivalent to the actually guilty. Therefore, when it comes to its treatment of people, preemption brings possible future guilt into being in the present.

The doctrine of preemption requires a discussion of time, particularly the future, as an aspect of public space. There are multiple examples of time being used as a tool to analyse and describe space and urban form. It is particularly relevant to gradual changes in urban form, and the effect of movement through space. Movement adds speed, direction and distance (which are relationships of space to time) to descriptions of otherwise static physical forms. Bill Hillier introduces the concept of *synchrony* to describe space in his work *The Social Logic of Space*.[32] The term generally means 'simultaneous action,' but Hillier uses it to describe time in space, noting that "we must use movement, which occupies time, to overcome space." [33] Hillier goes on to explain that large, complex spaces cannot be understood all at once, and require movement to observe the space one part at a time. Urban conditions take time (via movement) to understand. However, if the order of an urban place can be understood all at once it is described as 'synchronous'. This approach relates time to the process of understanding the physical structures and arrangements of a space, without describing other forces such as meaning, identity and activity. It relates to the present and past only, as space is understood one piece at a time, and does not include a future component. Preemption brings the future into the analysis of spaces in the present.

Preemption evokes questions about the effect of imaginings of the future on the material and spatial reality of contemporary life. How, in other words, is our present life shaped by an imagined future that may never come to pass? Preemption creates heterotopic public spaces always on the verge of disaster with future threats incubating within the space of the present and those who occupy it.[34] Because preemption responds to possibilities inherent and emerging within the present, everyday life will remain in tension, as a heterotopia, even if a threat has been acted upon.[35] Two particularly

[32] Bill Hillier and Julienne Hanson, *The Social Logic of Space* (Cambridge; New York: Cambridge University Press, 1984).
[33] Bill Hillier, *Space Is the Machine: A Configurational Theory of Architecture* (Cambridge: Cambridge University Press, 1996). 233.
[34] Ben Anderson, "Preemption, Precaution, Preparedness: Anticipatory Action and Future Geographies," *Progress in Human Geography* 34, no. 6 (2010). 780.
[35] Ibid. 780.

troubling impacts of this are the equivalency of threatening and threatened life. It also brings into being in the present outcomes which may have not otherwise eventuated. Security and counterterrorism aim to protect valued life – that of the civilian citizen by challenging and threatening the unvalued life of the criminal or terrorist. However, preemption understands that threats to everyday life incubate within it, with the result that "the life to be cared for is equivalent to the life that must be acted over."[36] It is necessary to understand how preemption works to control and monitor space, and users of space, to reveal how civilian security transmutes into civilian oppression. Similarly, in order to preempt a threat, it must be imagined and quantified for an appropriate response to be devised. Risk analysis and management is important here as a method of calculating the likelihood of the threat and its potential cost. However, preemption cannot afford to wait until the imagined threat emerges – it has to act first. In this way, preemption brings imagined future threats into the present where they constitute an ontological reality. This relationship between a possible future and the constrained present is a play of power and control and is the location of tension between securing a place while also ensuring it can function successfully as a public space.

States of emergency emerge as threats occur, or in response to them. The doctrine of preemption and anticipatory logics of control, on the other hand, expand the spatial-temporal field of emergency intervention so it may act against possible future events.[37] Space is physically altered by preemptive control; the distinction between normal and exceptional events and responses become blurred as threats are governed before they occur.[38] Threats are site-specific, but the interventions discussed in this research project are generalised – each case study site is shaped by generic interventions to site based threats, as well as imminent risks. This is a problem because it suggests that existing security responses are not adequately site or threat specific, and that there is a surfeit of control that constrains all aspects of the site. Fear of terrorism and its pervasive nature outweighs the reality of its likelihood and the risks it poses.[39] Security is a balancing act, and restrictions to spatial freedoms are an expected outcome. However, if public space is shaped in response to terror threats then that becomes a problem as it sets up permanent states of exception that constrain public space. The reality is that it is not possible to secure all people in all spaces against all possible threats and risks. The problem with preemptive approaches to security is that they attempt to do just that.

[36] Ibid. 781.

[37] Peter Adey, Ben Anderson, and Stephen Graham, "Introduction: Governing Emergencies: Beyond Exceptionality," *Theory, Culture & Society* 32, no. 2 (2015).

[38] Ibid.

[39] Jessica Wolfendale, "Terrorism, Security, and the Threat of Counterterrorism," *Studies in Conflict & Terrorism* 29, no. 7 (2006).

2.2 Review of Literature

This research project aims to understand the contemporary infiltration of security thinking into everyday public spaces. Therefore, it is necessary to explore existing literature that addresses the range of influences and impacts of security thinking, and of theories of urban place making and experience. There are overlaps amongst many of the strands of research as they are often interrelated and form a transdisciplinary discourse. For the purposes of this review I have arranged the relevant material into themed categories, bearing in mind that some work may fit within multiple categories and that there is dialogue between these areas of study. The categories are as follows:

- Theories of urban space – particularly defensive urbanism
- Emotions & fear – and how they shape urban space
- Threat & risk – particularly in the contemporary moment
- Terrorism – as a major threat to urban space
- Counterterrorism – how national security can impact everyday life at the urban level
- Power, security & control – how power and politics are physically expressed in urban space
- Preemption – as a contemporary political and security paradigm that impacts the shaping and experience of urban space

The literature reveals a tension related to contemporary, everyday experiences of public open space that exists across scales from the city to that of interpersonal interactions in public. The conflict emerges where cities and public spaces are faced with threats and risks, and this in turn leads to security measures that seek to control those threats. Cities are attractive targets for violence, such as terrorism, due to their population density, symbolic capital and complex infrastructure. Attempts to secure cities and control threats are often criticised for curtailing the everyday freedoms that citizens enjoy and that contribute to the sociocultural value of that place. The discursive debate surrounding the balance between freedom and security was thoroughly explored in City Secure, a master design course at the Bergen School of Architecture in Norway in 2013. The course was run in collaboration with the Norwegian Police Security Service, National Security Authority and COWI Centre for Risk Reducing Design.[40] The student work was subsequently expanded into a book, *The City Between Freedom and Security* (2017), that includes broader inquiries on the topic and discursive analysis of conflicting viewpoints.[41] *The City Between Freedom and Security* was published after this research project commenced and has provided a valuable parallel example of methodology and analysis. Both this book and my research explore the spatial tensions between controlled, secure spaces and those

[40] Simpson, Jensen, and Rubing, *The City between Freedom and Security: Contested Public Spaces in the 21st Century*. P7.
[41] Ibid.

that are open and free to use without restraint. The tension between freedom and security in urban space is an outcome of competing desires and flows of power relations; which are expressed physically in the form of public spaces. Literature in this area provides methods of observing, analysing and understanding how space is a physical conduit for power relations and practices of everyday life. This research project engages with these strands of literature to develop a generalised understanding of the effects of controlling security measures on PMGs.

There is limited research and literature regarding security and CT from within the urban planning and design sphere. There is, however, a wealth of literature from other fields that focus on terrorism and security issues. This research is increasingly cross-disciplinary, a trend that should lead to further engagement of urban researchers and designers. Research in fields such as criminology that relates to fear perception, and social effects of terror threat is relevant to understanding impacts of threat in public spaces.[42] Christopher Bennetts' research explores the interaction between security and public amenity in transport infrastructure.[43] Bennetts explains how security measures for transport reflect changing social priorities. This is expressed by controlling how people use planes and trains etc, as well as the relevant built forms such as roads, stations and airports. Jon Coaffee researches methods that planners can implement to protect against the recent trend of terrorists using low-tech means (vehicles, knives) to achieve mass casualties. Coaffee positions planners as crucial partners with security agencies in securing and preparing cities for soft target attacks. Louise Tickle, writing for the newspaper *The Guardian*, called for planning courses to include training in preventing and mitigating urban terror attacks.[44] Tickle cites the UK's Home Office's Project Argus which provides counterterrorism training courses for businesses and has introduced a course tailored for architects and planners. This research aims to contribute to this existing body of literature, and introduce methods of assessing small scale spatial effects of controlling security measures.

2.2.1 Theories of Space

This research project is an analysis of how public spaces are controlled and secured against perceived threats and across time scales. Many of the researchers and theorists I engage with in this project work between urban and architectural space and from. The distinctions between architectural and urban are slippery and are used interchangeably in this work. Theories and analyses of urban public spaces are highly relevant and instructive in forming both the theoretical framework of this study and

[42] Suzanna Fay and Robert Crutchfield, "Perceptions of "Others," Risk, and Counter Terrorism-Related Informal Social Control," *Australian & New Zealand Journal of Criminology* 0, no. 0 (2018).
[43] Christopher 'Kit' Bennetts and Michael B. Charles, "Between Protection and Pragmatism: Passenger Transport Security and Public Value Trade-Offs," *International Journal of Public Administration* 39, no. 1 (2016).
[44] Louise Tickle, "Public Spaces, Secret Weapons," *The Guardian*, December 2 2008.

the approach to research methodology. This requires an understanding of the forces, powers and relationships acting within public space and affecting the patterns that are created. Particularly useful to this project are theories and research into the involvement of power and emotion in planning and using space. Power can be expressed spatially in many ways; physical force is a direct and obvious strategy, but control can be achieved through subtle measures that rely on symbolism and emotion.

Rene Boomkens explores historical discourses around the "condition and the fate of the urban public sphere."[45] Boomkens notes that as technology deterritorialises social life, the 'public sphere' shifts from a purely spatial consideration to one that includes other types of non-spatial environments with a diversity of activity. Similarly, Henri Lefebvre explains that the word 'space' has evolved from a strictly geometrical meaning to a conception of space as object with multiple meanings.[46] Divisions between public and private life, Boomkens explains, were explored by Hannah Arendt in the 1950s. Arendt identified the public sphere as the place of politics and civilian debate.[47] This is not a new idea, however, as it clearly relates to the polis, Ancient Greek socio-political structure of cities. Boomkens develops these ideas, identifying the importance of activities and socio-cultural practices in describing public space, not just spatial qualities. Built form, both urban and architectural, are the backdrop to the public realm and socio-political life that occurs therein.[48] It is people and their activities that truly constitute the public realm; accommodated or constrained by public space. Designers, who are complicit in enabling control, are also able to design openness and opportunities for interaction into public space.[49] The role of design, and designers, in moulding public life by either constraining or encouraging certain behaviours and activities is an important aspect of the relevance of this study. That which public space allows, becomes public life.

Ash Amin's research explores a 'post-humanist' view of urban space that critiques the traditional view of public space as central to civic culture and politics.[50] Amin questions the contemporary relevance of the idea that public spaces are key social and cultural sites that are essential for the formation of societies. Amin's work develops from Boomkens and is a counterpoint to earlier ideas that put space at the centre of civic development. Such critique is increasingly relevant as public life moves towards digitally supported communities. Ideas are shared online, and can be more widely disseminated to

[45] Rene Boomkens, "The Temporalities of the Public Sphere," in *Into the Open: Accommodating the Public*, ed. Tom Avermaete, Klaske Havik, and Hans Teerds, Oase (Rotterdam: NAi Publishers, 2008). P11-12.
[46] Henri Lefebvre, *The Production of Space*, trans. Donald Nicholson-Smith (Maldon, MA: Blackwell Publishing, 1991). 1.
[47] Boomkens, "The Temporalities of the Public Sphere." P12 And Hans Teerds, "Public Realm, Public Space: An Architectural Reading of *the Human Condition*," in *Into the Open*, ed. Tom Avermaete, Klaske Havik, and Hans Teerds, Oase (Rotterdam: NAi Publishers, 2008). P11-12.
[48] "Public Realm, Public Space: An Architectural Reading of *the Human Condition*." P30.
[49] Abram de Swaan, "Unauthorised Urban Thoughts: Private and Public Practice within Urban Space," in *Into the Open*, ed. Tom Avermaete, Klaske Havik, and Hans Teerds, Oase (Rotterdam: NAi Publishers, 2008). P33.
[50] Ash Amin, "Collective Culture and Urban Public Space," *City* 12, no. 1 (2008).

influence wider groups. While this is an important property of contemporary public life, we have not yet abandoned space as a site where society and identity are formed. Nevertheless, this research has been informed by the understanding that the nature of public life is changing, and that space is not essential for the construction of societies.

Theories around meaning and identity in public space are also important to this project. Dovey is, again, influential in this regard. His work explores the formation and becoming of place, and its role in the formation and stabilisation of its own, as well as social and individual identity.[51] There is a productive dialogue between place and user, particularly in regard to identity and meaning. Place and user should not be considered as theoretically independent elements that come together in an infertile manner. They mix, they intersect, they create something new. Citing Massey, Dovey explains that places do not have fixed identity,[52] as much as designers and authorities may try to stabilise it. There are multitudinous identities inherent in public space. Users of the space define the identity and meaning of that place in relation to their own identity and world view. Attempts to fix spatial identity through branding seek to fix a place's identity and preclude the emergence of competing identities.[53] Everyday spaces of public life help form a sense of one's place in the world, while also being a neutral backdrop to everyday life.[54] Dovey's exploration of place meaning has informed this research project, which deals directly with spatial branding and identity formation of public places. The dialogue between place and person helps to form the identity of both, and shapes their meaning through their interactions. This research project is interested in how control of space can impact the formation of meaning and identity for both the space and its users.

Jianfei Zhu's *Chinese Spatial Strategies: Imperial Beijing 1420-1911* analyses layers of spatial arrangement to find a generic approach to spatial design in Chinese culture.[55] *Chinese Spatial Strategies* examines Chinese cities and landscapes through several distinct lenses: geopolitical space (city and landscape), social space, political architecture and architectural compositions designed around religious or aesthetic preferences. This research work undertakes a close reading of various spaces that reveals generalised patterns and approaches to the design and arrangement of space that are unique to their cultural context. In contrast, my research seeks to find generalised patterns across

[51] Kim Dovey, *Becoming Places: Urbanism/Architecture/Identity/Power* (Oxon: Routledge, 2010). P3.
[52] Ibid. P7.
[53]Claire Miller, "Consumption as Control: Historical Relationships between Regulated and Unsanctioned Practices of Consumption in Public Squares," *Historic Environment* 30, no. 2 (2018).
[54] Dovey, *Becoming Places: Urbanism/Architecture/Identity/Power*. P7.
[55] Jianfei Zhu, *Chinese Spatial Strategies : Imperial Beijing, 1420-1911* (New York: Routledge, 2003).

multiple sites that are independent of cultural context. Nevertheless, this work provides a useful precedent for a method of spatial analysis and description.

An important and seminal method for analysing spatial configurations and networks was developed at the Bartlett School in London by Bill Hillier and Julienne Hanson. 'Space Syntax' is a method of analysing networks, connections and elements in space to understand patterns and usage.[56] This is a methodological example that uses diagrams and maps to describe spatial patterns, and has been instructive for the development of my own analysis methods. Hillier and Hanson seek to uncover 'genotypes' of architectural space. Their work reveals patterns and rules around socio-spatial interactions within space, what is called a 'social logic' of space.[57]

David Harvey suggests that the production of cities has been driven by mechanisms of class and capitalism, with power and control centralised in the hands of the few at the expense of the many.[58] Harvey claims that the freedom of individuals and communities to reshape cities and urban places to meet our needs is a neglected human right that he calls 'the right to the city.' This concept is important as it theorises the dialogue between people and place and that by reshaping our cities we reshape ourselves. Harvey's work explores the effects on people of power relations and urban form. The formation of competing meanings within public space is relevant to this research as it presents a counternarrative to the official, sanctioned identity of place. This informs the concept of site 'branding' as a control measure that aims to suppress alternative meaning and identity.

2.2.2 Defensive Space

As this research project examines control and security as responses to threats in urban space, it is worth looking in more detail at the lineage of theories of urban form as defensive configurations. A thorough examination of historical research into how cities have evolved to defend against changing threats is beyond the scope of this research. Suffice to say that urban form has historically been in dialogue with technologies of both attack and defence. An examination of recent developments in urban security theory and practice, leading up to the preemptive turn in counterterrorism, is helpful in situating this research within urban security discourse. This section discusses theories of force and power as they are expressed and performed in urban space to control. This includes theories that design can prevent and mitigate threats, such as crime prevention through environmental design (CPTED), and more recent theories that use environmental design to mitigate threats rather than

[56] Hillier and Hanson, *The Social Logic of Space*.
[57] Dovey, *Framing Places: Mediating Power in Built Form*. P23.
[58] Harvey, "The Right to the City." And *Rebel Cities : From the Right to the City to the Urban Revolution* (London ; New York: Verso, 2012).

prevent them. These more recent theories include critiques of deterministic approaches to security such as CPTED and examine the adverse impacts of controlling security measures on the quality and amenity of public urban space (discussed further in the next section).

CPTED was developed in the 1960s and '70s by (separately) criminologist C. Ray Jeffrey and architect Oscar Newman building on work already undertaken by Jane Jacobs and Elizabeth Wood that challenged contemporary thinking around urban planning.[59] It sought to use planning and design to minimise crime and antisocial behaviour in public space, theorising that environment could determine behaviour. CPTED is a broad approach incorporating criminology and psychology to inform designs that discourage crime and make it harder to commit. The desire to 'design out crime' is not a recent one. It is evident in the urban forms of ancient Chinese and medieval European cities, among others, and the dialogue between defensive urban form and the development of weapon technology.[60] A well-known example is Haussman's alterations to Paris in the 1850s, inspired by strategies of colonial generals fighting North African resistance.[61] Newman's seminal text *Defensible Space* focused on personal safety in and around public housing. Newman felt that crime could be prevented by a self-defensive social fabric, rather than designating the role of security to an external authority.[62] Newman proposed design changes to residential environments that strengthened community bonds and feelings of personal and communal ownership over semi-public space. The idea was that if people felt responsible for shared space they would care for it as a community.[63] This strategy is not so much about using planning strategies to prevent crime, but rather using the environment to build social connections to remove the social factors that lead to criminal behaviours.

Contemporary CPTED strategies combine spatial mechanisms of prevention with mitigation and preemption. The types of threats and risks that CPTED responds to has also evolved beyond residential space and engages with the effects of national security policy on architecture and urban design and locates the responsibility for security with government agencies.[64] "Increasingly, the potential threat of urban terrorism . . . has necessitated attempts to 'design out terrorism' (or perhaps more correctly

[59] Jon Coaffee, "Fortification, Fragmentation and the Threat of Terrorism in the City of London in the 1990s," in *Landscapes of Defence*, ed. John R. Gold and George Revill (New Jersey: Prentice Hall, 2014).
[60] AnnMarie Brennan and Claire Miller, "Pillaging the Past, Projecting the Future: Architectural History and Urban Culture in 21st Century Warfare," in *Proceedings of the Society of Architectural Historians, Australia and New Zealand: 33, Gold*, ed. AnnMarie Brennan and Philip Goad (Melbourne: SAHANZ, 2016).
[61] Eyal Weizman, *Forensic Architecture: Violence at the Threshold of Detectability* (New York: Zone Books, 2017). P165.
[62] Oscar Newman, *Defensible Space : People and Design in the Violent City* (London: Architectural Press, 1973). P14.
[63] Ibid. PP3-4.
[64] Llewellyn Davies, "Safer Places: The Planning System and Crime Prevention," ed. Office of the Deputy Prime Minister and Home Office (UK: Queen's Printer and Controller of Her Majesty's Staionery Office, 2004). Refer also "Protecting Crowded Places: Design and Technical Issues.". For an Australian context, refer: Commonwealth of Australia, "National Guidelines for the Protection of Places of Mass Gathering from Terrorism," ed. National Counter-Terrorism Committee (Barton, ACT: Attorney General's Department, 2011). And "Active Armed Offender Guidelines for Crowded Places."

to 'design-in' counter-terrorism) through the addition of advanced security design features."[65] Mitigation strategies include target hardening, which minimises the effects of bomb blasts by increasing set back distances around buildings with barriers and bollards, and strengthening building structures and materials.[66] These strategies are about risk management and are responses to a particular set of potential outcomes that can be prepared for by calculating their probability and likely damage.[67] This approach is really driven by notions of thresholds. Creating physically secure perimeters around buildings, monitoring and controlling access across boundaries into space and increasing the threshold of damage a structure can absorb, from a bomb explosion for example, without failing. Mitigation also deals with how easily people can escape from threats, how easily emergency services can respond to threats, and how the space can recover and return to normal. All these factors of threat mitigation, response and recovery rely on hierarchies of power and control acting over the space and people in it. Understanding these strategies and their relationship to power is a significant aspect of this research project.

Jon Coaffee has published extensive research examining physical control measures implemented across cities as design responses to the threat of crime, particularly terrorism.[68] Coaffee's work is centred in the UK and provides a wealth of description and analysis of power and control in urban space that is highly relevant and useful for this project. Coaffee combines a thorough historical overview approach with street-level spatial analysis, perhaps best exemplified in his article "Rings of Steel, Rings of Concrete and Rings of Confidence: designing out Terrorism in Central London pre and post September 11th".[69] Coaffee examines the idea of 'fortress urbanism' in London and Belfast, supporting this with a historical analysis of the development of a complex system of spatial control. Coaffee's work explores urban resilience and how urban space is physically shaped by security strategies that protect against threats.[70] His work supports the idea that urban planners and designers can and should be involved in the task of securing urban space. It should not be left to security experts to retrofit control interventions into public space; designers should work closely with security experts

[65] Jon Coaffee, *Terrorism, Risk and the Global City* (Farnham, Surrey: Ashgate Publishing Group, 2009). P6.

[66] "Rings of Steel, Rings of Concrete and Rings of Confidence: Designing out Terrorism in Central London Pre and Post September 11th," *International Journal of Urban and Regional Research* 28, no. 1 (2004). PP201-211.

[67] Eyal Weizman, *The Least of All Possible Evils: Humanitarian Violence from Arendt to Gaza* (London; New York: Verso, 2011).

[68] Coaffee, "Fortification, Fragmentation and the Threat of Terrorism in the City of London in the 1990s."

[69] "Rings of Steel, Rings of Concrete and Rings of Confidence: Designing out Terrorism in Central London Pre and Post September 11th." 201-211.

[70] *Terrorism, Risk and the Global City: Towards Urban Resilience*. Jon Coaffee and Jonathan Clarke, "On Securing the Generational Challenge of Urban Resilience," *TPR: Town Planning Review* 86, no. 3 (2015). Jon Coaffee et al., *The Everyday Resilience of the City; How Cities Respond to Terrorism and Disaster*, New Security Challenges (Basingstoke: Palgrave Macmillan, 2008), Non-fiction.

on a holistic solution.[71] This research project seeks to develop frameworks for assessing control in space that can be used by designers, bringing urban understanding into the security conversation.

2.2.3 Emotions & Fear

The ability to secure space requires control of how when, and by whom space is used. It also involves subtle or symbolic messages about permitted behaviours and access.[72] This can be achieved with overt messages of authority and preferred site identity through branding and programming the space to exclude activities that do not conform to the desired site identity.[73] Urban research here interacts with the psychology of fear in space. Nan Ellin explains how fear of an uncertain future creates nostalgia for spaces of the past which have been proven to be safe. Ellin refers to this drive towards a known, safe space-time of the past as 'retribalisation.' [74] This leads to urban design and architecture that consciously references historical spaces that reflect 'traditional values.' Van Melik et al refer to this as 'themed space,' noting that such spaces are often exclusionary to those who do not fit within the preferred neo-traditional image.[75] Dovey also explores this idea, noting that gated communities link the ideal of home to the security of an unchanging past.[76] This form of spatial control attempts to manage future threats by minimising change and difference. Anne Aly, adjunct professor in counterterrorism at Edith Cowan University before becoming an Australian federal parliamentarian, describes the collective reaffirmation of in-group solidarity and aggression towards difference as a search for ontological security.[77] Taner Oc and Steven Tiesdell examine the differences between feelings of fear and actual risks of victimisation. They explore urban design strategies to achieve emotional and safety needs.[78] The relationship between fear and spatial design is crucial in understanding how terrorism and counterterrorism work in public space. Such an understanding is useful for this project as it helps to explain the use of propaganda and messaging within space that is

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[71] Jon Coaffee, "Urban Terrorism Isn't Going to Stop. Can City Planners Help Reduce Its Lethal Impact?," *The Washington Post* 2017. "Protecting Vulnerable Cities from Terrorism: Enhancing the Resilience of Everyday Urban Infrastructure," in *The City between Freedom and Security: Contested Public Spaces in the 21st Century*, ed. Deane Simpson, Vibeke Jensen, and Anders Rubing (Basel: Birkhauser, 2017).

[72] Jeremy Németh and Stephen Schmidt, "The Privatization of Public Space: Modeling and Measuring Publicness," *Environment & Planning B: Planning and Design* 38, no. 1 (2011). PP5-23.

[73] Miller, "Consumption as Control: Historical Relationships between Regulated and Unsanctioned Practices of Consumption in Public Squares." And Fallon Porter, "London Has Fallen: A Case Study on Global City Branding, Terrorism and Crisis Communication" (University of Colorado, Boulder, 2018).

[74] Nan Ellin, *Architecture of Fear* (New York: Princeton Architectural Press, 1997). 27.

[75] Rianne Van Melik, Irina Van Aalst, and Jan Van Weesep, "Fear and Fantasy in the Public Domain: The Development of Secured and Themed Urban Space," *Journal of Urban Design* 12, no. 1 (2007). 25-42.

[76] Dovey, *Framing Places: Mediating Power in Built Form*. P5.

[77] Anne Aly, "A New Normal? Australian Responses to Terrorism and Their Impacts," in *The Political Psychology of Terrorism Fears*, ed. Samuel Justin Sinclair and Daniel Antonius (Oxford: Oxford University Press, 2013). 160.

[78] Taner Oc and Steve Tiesdell, "The Fortress, the Panoptic, the Regulated and the Animated: Planning and Urban Design Approaches to Safer City Centres," in *Landscapes of Defence*, ed. John R. Gold and George Revill (Harlow, England: Prentice Hall, 2000).

used both by terrorist groups, and security agencies. Fear and design relate to risk and the different ways that space can produce or alleviate anxiety in different groups. Risk, threat, terrorism and counterterrorism, as they relate to the production of public space, will be discussed in more detail below.

There is a difference between what threatens people and places and what people fear. Oftentimes, there is a logical connection between the two and the real risks to people in space are the things that they fear. However, there is a large body of research that examines people's feelings of safety and security in space and the things that cause them fear in the public realm. Recent research examines the impact of security infrastructure on the atmosphere of place and how it makes people feel. While security mechanisms are intended to keep people safe, they can signal to people that there is a threat to that space. The affective outcome is fear and insecurity rather than a reassurance of safety.[79] John Armitage calls this the 'panicked structures' of the contemporary city and explores theories of urban fear and the spatial aesthetic of catastrophe.[80] Armitage discusses these concepts as an introduction to Paul Virilio's work, particularly on the 'City of Panic'.[81] Contrary to this view, research from Denmark showed that the public's response to visible security measures in crowded places was positive.[82] The researchers noted a high level of societal trust as a possible reason for this finding, indicating that the effects of security measures on emotions in space cannot be understood in isolation of their socio-political context. Rachel Pain provides further critique of the idea that there is a geopolitical globalised fear in response to contemporary events.[83] Pain notes that the recent growth in analysis of fear (e.g. Frank Furedi [84] among others) overlooks social agency and political resistance. Pain's social research contends that fear of terrorism in western countries has been overblown by commentators.[85] Levels of fear of terrorism do not always correlate with the reality of the threat of terrorism. This research does not directly address whether or not security measures are *necessary* or if they are a kind of visible placation of community anxieties. Nevertheless, it is an important area of research to be aware of wen assessing the effects of controlling security measures in public spaces.

[79] Peter Adey et al., "'Pour Votre Tranquillité': Ambiance, Atmosphere, and Surveillance," *Geoforum* 49 (2013).
[80] John Armitage, "Escape from Alphaville: Introducing Paul Virilio's City of Panic," *Cultural Politics* 1, no. 3 (2005).
[81] Paul Virilio, *City of Panic*, ed. Gary Hall, trans. Julie Rose, English ed., Culture Machine (Oxford: Berg, 2005).
[82] Anja Dalgaard-Nielsen, Jesper Laisen, and Charlotte Wandorf, "Visible Counterterrorism Measures in Urban Spaces—Fear-Inducing or Not?," *Terrorism and Political Violence* (2014).
[83] Rachel Pain, "Globalized Fear? Towards an Emotional Geopolitics," *Progress in Human Geography* 33, no. 4 (2009).
[84] Frank Füredi, *Culture of Fear Revisited: Risk-Taking and the Morality of Low Expectation*, 4 ed. (London: Continuum, 2006).
[85] Rachel Pain, "The New Geopolitics of Fear," *Geography Compass* 4, no. 3 (2010).

2.2.4 Threat & Risk

In order to explore how public spaces are controlled, protected and secured it is necessary to understand why they are protected. Understanding the threats and risks that public spaces face is essential in understanding why they are protected. Therefore, any study into the methods of securing and controlling public space must deal with/address what space is and its values, and the ways that it can be threatened. Risk analysis includes understanding the threat to a place, but also the value inherent in that place and the consequences that would flow from any threat. Actions taken to prevent or preempt threats are devised with an analysis of the risks involved with those threats. Assessing risk can be described as a three-step process:[86]

1. Identify assets and their importance
2. Identify threats to these assets
3. Identify vulnerabilities that could affect the assets

There is an important distinction here between threat and danger. Danger emerges from the past, from known causes; whereas threat emerges from the future, incubates in the present and is of an indeterminate nature.[87] The three-step risk assessment process, above, is an exercise in imagination and projection when applied to threats.

The nature of the threat that this research project contends with is both theoretical and physical. Or, rather, this research is interested in physical manifestations of responses to risks and threats in public urban space. Urban spaces, and the people occupying them, contend with multiple risks from a range of sources. This study focuses on urban responses to national security risks, such as terrorism, and not the everyday dangers of urban life such as interpersonal violence or accidents etc. Terrorist violence is both a real danger and a theoretical, existential danger and can be the catalyst for other dangers. Insofar as it is a real danger, it is predictable and understood. It can be managed. However, the far more significant danger is posed by possible unpredictable threats that cannot be understood, and therefore managed, before they come into being. For example, hostile vehicle attacks are an easily understood method of terroristic violence for which there are extensive preventative measures in many urban places. A hostile vehicle attack is a real danger, which makes it manageable. The attack on the Twin Towers on September 11 was an entirely unimagined type of attack that could not be predicted, managed, or understood prior to its happening. This type of threat is existential and far

[86] Simpson, Jensen, and Rubing, *The City between Freedom and Security: Contested Public Spaces in the 21st Century*. 325.
[87] Charles Rice, "The Space-Time of Pre-Emption: An Interview with Brian Massumi," *Architectural Design* 80, no. 5 (2010). 32-37.

more worrying because it is not manageable or preventable based on existing knowledge.[88] This type of threat legitimises preemptive action, behaviours and strategies as they are inspired by paranoia and fear of the unknown. In the UK, the risk of these types of extreme events has led to civil contingency planning and the 2004 *Civil Contingencies Act*. This approach is shaped by the politics of resilience within a broader politics of insecurity.[89] The critique of this approach is that it is a performative politics of risk management that highlights the inherent ambiguity of preemption as a tool of emergency planning.[90] While risks and dangers are often accidents, the risk posed by terrorism is a deliberate exploitation of vulnerabilities in contemporary society.[91] Terrorism constitutes a different category of risk that is intentional and deliberately aims towards maximum catastrophe. Terrorism also seeks to be a high impact – low probability event as these inspire the most fear and provide valuable propaganda for terrorist groups. Terrorist propaganda takes advantage of contention surrounding historical interpretations of event and competing memories.[92]

2.2.5 Terrorism

There is no internationally agreed upon definition of terrorism. It is not within the scope of this research project to examine the definitional issue in terrorism studies. However, the main divergences relate to whether terrorism is a crime or an act of war, whether states can engage in terrorism, and the role of the 'freedom fighter.'[93] The inability to find an adequate common definition hinders international cooperative efforts to counter terrorism.[94] For the purposes of this project, the most relevant areas of terrorism research relate to terrorism as a violent strategy that creates fear as coercive propaganda.[95] Terrorism research provides background and context to this work, and informs the justification for installing controlling security measures. This is not a terrorism research project – it is a study of the effects of responses to threats such as terrorism. An understanding of the threats, such as terrorism, is necessary to understand the responses.

Terrorism is 'propaganda of the deed' that uses civilian deaths as message generators signalling the danger of future deaths.[96] The message is not directed at the victims of the attack – violence

[88] Nassim Taleb, *The Black Swan: The Impact of the Highly Improbable*, 1st ed. (New York: Random House, 2007).
[89] James Brassett and Nick Vaughan-Williams, "Security and the Performative Politics of Resilience: Critical Infrastructure Protection and Humanitarian Emergency Preparedness," *Security Dialogue* 46, no. 1 (2015).
[90] Ibid.
[91] Ulrich Beck, "Living in the World Risk Society," *Economy & Society* 35, no. 3 (2006).
[92] Walkowitz and Knauer, *Memory and the Impact of Political Transformation in Public Space*. 1.
[93] Ganor, "Defining Terrorism: Is One Man's Terrorist Another Man's Freedom Fighter?."
[94] Inez Braber, "The Thorny Nature of a Terrorism Definition in International Law," *IUP Journal of International Relations* 10, no. 1 (2016).
[95] Tilly, "Terror, Terrorism, Terrorists."
[96] Schmid, *The Routledge Handbook of Terrorism Research*. 61.

manipulates the emotions and behaviours of a wider target audience.[97] "Because every terrorist act is perceived to be part of a potential series, terror is oriented towards the future and involves the imaginary anticipation of prospective events."[98] While terrorism as a coercive strategy has been used for centuries, the source and motivation of this type of political violence has changed over time in response to geopolitical circumstances. September 11 is seen to have heralded the most recent 'wave' of Islamic extremist terrorism targeting symbolic Western sites.[99] Terrorism targets cities because the concentration of potential victims, witnesses, media attention, economic disruption, and damage to infrastructure amplify its effects.[100] Max Abrahms questions the prevailing idea in political science that terrorism is an effective coercive strategy.[101] Abrahms notes the lack of empirical evidence that terrorism succeeds in coercing governments to produce the desired outcome, concluding that the pessimistic and fearful attitude towards terrorism is overblown. There is a recent body of literature that engages specifically with terrorism as an urban phenomenon – rather than as a purely criminal or political act. Relevant researchers in this area include Jon Coaffee, Stephen Graham,[102] HV Savitch,[103] and Edward Glaeser.[104] The work of these researchers reveals the contemporary condition of violence and defensive technology as place-shaping mechanisms that are examined in this project.

Terrorism and other forms of urban violence relate to emotions (fear) and a defensive character of urban spaces. I have experienced this in action following the terror attack at London Bridge and Borough Market in May 2017 which occurred while I was undertaking my fieldwork for this study. Immediate effects including locking down of tube stations, the closure of the Bridge and Market, and the focusing of conversations around the city on these events. This attack was not long after the Manchester Arena bombing (also in May 2017) and although that was in an entirely different city, I noted the change in security presence and sense of 'lockdown' in London. The immediate impact of locking down the location of the attack has a ripple effect on adjacent urban places and particularly PMGs including train stations, airports, shopping malls, public squares and other gathering spaces. Kim Dovey describes a similar experience following terror attacks in Mumbai in 2008, which he was visiting for research. Dovey notes that while normal activities resumed quickly after the attack, terror

[97] Todd Sandler, "New Frontiers of Terrorism Research: An Introduction," *Journal of Peace Research* 48, no. 3 (2011). 280.
[98] Michael C. Frank, "Conjuring up the Next Attack: The Future-Orientedness of Terror and the Counterterrorist Imagination," *Critical Studies on Terrorism* 8, no. 1 (2015). 90.
[99] David C. Rapoport, "The Fourth Wave: September 11 in the History of Terrorism," *Current History* (2001).
[100] Coaffee, *Terrorism, Risk and the Global City: Towards Urban Resilience*. 6.
[101] Max Abrahms, "Why Terrorism Does Not Work," *International Security* 31, no. 2 (2006). 42.
[102] Graham, *Cities, War, and Terrorism: Towards an Urban Geopolitics*. And, "Cities and the 'War on Terror'," *International Journal of Urban and Regional Research* 30, no. 2 (2006).
[103] Savitch and Ardashev, "Does Terror Have an Urban Future?." And, H. V. Savitch, *Cities in a Time of Terror: Space, Territory, and Local Resilience*, Cities and Contemporary Society (Armonk: Taylor and Francis, 2014).
[104] Edward Glaeser and Jesse M. Shapiro, "Cities and Warfare: The Impact of Terrorism on Urban Form," *NBER Working Paper Series* (2001).

continued to spread through the global media. Dovey concludes that the threat terrorism poses to open and accessible public space is more damaging than the threat to life.[105]

2.2.6 Counterterrorism

Contemporary counterterrorism is an iteration of historical efforts to secure cities and incorporates defending against terrorism, preventing it, countering it and deterring terrorists from carrying out attacks.[106] Counterterrorism needs to be understood in relation to terrorism itself. It is generally understood to relate to approaches that remove the terrorists themselves, or environments that are attractive terror targets. This can be achieved as hard-line or soft-line responses. Hard-line counterterrorism relates to the use of repressive measures such as military violence. Whereas, soft-line approaches reduce the likelihood of terror emerging through social methods and amending environments.[107] Most counterterrorism literature examines North America, Europe and the Middle East. A review of the existing literature reveals that contemporary counterterrorism measures exist on a continuum that reflects a dialogue between defence and threat within urban space. Cities have always been targets of violence, adapting their defences in response to the threat of the day.[108]

Contemporary terrorism is characterised by the growth of two related strategies. Low-probability high-impact attacks carried out by terrorist organisations, such as the September 11 attacks. And secondly, low-technology, random attacks against civilians carried out by lone wolves, often inspired by organisations, such as the London and Manchester attacks on July 2017.[109] In response to this, governments and security agencies around the world have adopted a doctrine of preemption; this is particularly evident in Western democracies allied with the USA in the years since September 11. Preemption will be discussed in more detail below, but it is important to note its role in counterterrorism strategies, methods and outcomes – particularly the effects on public spaces and the people who use them.

Counterterrorism, particularly in its preventative mode, creates distinctions between different groups of people to determine potentially 'suspect communities'. This means that all members of community are tarred with the same brush and treated as suspicious due to the actions of a minority of that group

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[105] Dovey, *Becoming Places: Urbanism/Architecture/Identity/Power*. P x-xi.

[106] Neil J. Smelser, *The Faces of Terrorism: Social and Psychological Dimensions*, Science Essentials (Princeton: Princeton University Press, 2007). 161.

[107] David McIlhatton et al., "Protecting Crowded Places from Terrorism: An Analysis of the Current Considerations and Barriers Inhibiting the Adoption of Counterterrorism Protective Security Measures," *Studies in Conflict & Terrorism* (2018).

[108] Brennan and Miller, "Pillaging the Past, Projecting the Future: Architectural History and Urban Culture in 21st Century Warfare."

[109] Raffaello Pantucci, "Britain on Alert: The Attacks on London and Manchester and the Evolving Threat," *CTC Sentinel* 10, no. 7 (2017).

(or related group). This concept was first theorised in the twentieth-century regarding the treatment of Irish people generally in the UK following the actions of the IRA. In the post September 11 world it has expanded to Muslims in the global war on terror, following the actions of a small number of extremist groups.[110] The creation of suspect communities is a political and social process – the behaviour and make up of these communities are 'imagined' by those outside the community. As Marie Breen-Smyth notes, they are communities "created in and by the securitised imagination and enacted in a process of 'othering' through a range of security practices of counter-terrorism."[111] While the creation of an imagined suspect community in the context of counterterrorism would appear to be a preemptive strategy, it remains as a preventative strategy. The distinction here is that preemptive imaginings of suspect communities renders all people simultaneously both a potential suspect and a potential victim.[112] The preemptive future imagining may devise suspect communities, but the present time spatial manifestation of this imagining treats the suspect and the non-suspect the same. Preemptive counterterrorism relies on the public's fear of terrorist attack to legitimise itself.

There is a more recent body of research that critiques the relationship between terrorism threat, community anxieties, and counterterrorism interventions. Anne Aly explains that fear of terrorism is an undercurrent in society that fluctuates in response to significant terror events.[113] Heightened fear in the community can lead to pressure on governments to respond. Jessica Wolfendale explains that the threat of terrorism has been used by governments to justify unprecedented moves against individual freedoms.[114] It is at this point that counterterrorism measures begin to infringe on civilian public life, but they are often accepted by a populace in fear of terrorism. As Greg Martin notes, "It is now well documented that anti-terror laws... frequently violate the doctrine of the separation of powers by effectively increasing the authority of the executive and eroding judicial independence..."[115] Wolfendale opines that counterterrorism is a greater threat to personal security than terrorism.[116] Fear of terrorism has legitimised reconfigured power relations in contemporary society that sacrifice liberty in the present, for security in the future. While the impacts are felt at the scale of everyday public life, the decisions and processes occur at a national level.

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[110] Marie Breen-Smyth, "Theorising the "Suspect Community": Counterterrorism, Security Practices and the Public Imagination," *Critical Studies on Terrorism* 7, no. 2 (2014).
[111] Ibid. p223.
[112] Giorgio Agamben, "For a Theory of Destituent Power," in *The City between Freedom and Security: Contested Public Spaces in the 21st Century*, ed. Deane Simpson, Vibeke Jensen, and Anders Rubing (Basel: Birkhauser, 2013).
[113] Aly, "A New Normal? Australian Responses to Terrorism and Their Impacts."
[114] Wolfendale, "Terrorism, Security, and the Threat of Counterterrorism." 753-770.
[115] Greg Martin, "Showcasing Security: The Politics of Policing Space at the 2007 Sydney Apec Meeting," *Policing & Society* 21, no. 1 (2011). 40.
[116] Wolfendale, "Terrorism, Security, and the Threat of Counterterrorism."

Government military and intelligence agencies around the world conduct research and analysis into counterterrorism, preempting terror attacks and defending cities. Publicly available research from military and intelligence agencies largely focuses on technology (surveillance, cyber security, weaponry and armoury etc) and how that might be deployed to deal with threats in public space, online and in battlespace. It is likely that there is a body of research produced by military and intelligence agencies that is not publicly available. Within Australia, military and intelligence research, for counterterrorism and national security, is produced largely by the Defence Science and Technology Group (DST Group) within the Department of Defence, and the Australian Security Intelligence Organisation (ASIO). DST Group's research is technological and supports equipment and infrastructure; there does not appear to be any research directly related to the use and control of public spaces, except insofar as understanding how technologies will function in space. Both DST Group and ASIO are focused on progressive research and development, high-tech equipment, and providing security analysis and advice to other national security agencies.[117] National security analysis and advice is also provided by non-partisan think tanks such as the Australian Strategic Policy Institute (ASPI).[118] In the UK the Home Office, made up of 28 agencies and public bodies, is responsible for counterterrorism research and analysis in that country. Although it tends to focus on preventing terrorists from gaining the means to carry out attacks, rather than preempting attacks within public space.[119] By far, the most significant amount of defence and intelligence research comes from the USA. The US government funds several research and intelligence agencies and programs within the United States Intelligence Community (IC), the Defense Advanced Research Projects Agency (DARPA), the Intelligence Advanced Research Projects Activity (IARPA) and the RAND Corporation.[120] While this project does not engage with a case study site in the US, the research and data from these organisations are useful as they influence other, allied states including Australia, the UK and Jordan. RAND Corporation does address urban space and preemptive counterterrorism, providing advice to policy makers and designers regarding the role of urban planning in nation building efforts.[121] RAND Corporation's Intelligence Policy Center states that intelligence has the capacity to "create conditions to prevent, preempt, and deter adversaries."[122] These agencies are working to inform governments on matters of security, which allows them to better control threats. While this research does not

[117] "Australian Government: Australian Security Intelligence Organisation," https://www.asio.gov.au/. And ibid.
[118] ASPI, "Australian Strategic Policy Institute: About Us," https://www.aspi.org.au/about-aspi
[119] DARPA, "Defense Advanced Research Projects Agency: About Us," US Department of Defense, https://www.darpa.mil/about-us/about-darpa.
[120] Ibid. And IARPA, "Intelligence Advanced Research Projects Activity: About Us," US Government Office of the Director of National Intelligence, https://www.iarpa.gov/index.php/about-iarpa.
[121] RAND, "Rand Corporation: Urban Warfare," RAND Corporation, https://www.rand.org/topics/urban-warfare.html. And "Rand National Security Research Division: Cyber and Intelligence Policy Center," RAND Corporation, http://www.rand.org/nsrd/ndri/centers/intel.html
[122] "Rand National Security Research Division: Cyber and Intelligence Policy Center".

interrogate national security agencies, it is necessary to understand the government structures that advise and direct security interventions. Such advice directly impacts, through the resultant controlling security measures, the small scale public spaces that this study is interested in.

2.2.7 Power, Security & Control

This project draws heavily on literature on power relations in space. Key practitioners in this area for this study include Matthew Carmona and Kim Dovey. Carmona's work explores how public spaces are moulded, over time, within a framework of processes and power relationships.[123] Carmona work demonstrates the influential role that power relations play in shaping public places. Dovey's work similarly engages with place and power, exploring how urban space mediates power in social relations.[124] The relationships between power and space have a long tradition in the fields of urban studies. However, contemporary understandings of the fundamental connection between the two are inspired by the work of Foucault and Antonio Gramsci, among others such as Bourdieu and Lefebvre.[125] Power is expressed through space, but is also facilitated or constrained by space. Distance is a fundamental consideration to power in terms of the area of territory that is controlled, and how control is exercised through the communication of instructions.[126]

Power is a general term that encompasses a variety of methods and forms. Dovey's work is instructive on the types of power operating in public space and their operation. There is a distinction a distinction between 'power to,' meaning capacity, and 'power over,' meaning the power of one actor over another.[127] Dovey breaks down 'power over' into "force, coercion, manipulation, seduction and authority."[128] All of these methods of power over are relevant to this study, particularly as they constrain people's power to do everyday things in public space. As Dovey explains, built form "does not inherently oppress or liberate", it is merely used as a tool of control by those with power over others.[129]

Dovey explains that social life is framed by urban and architectural space. Form and space mediate practices of power that control social behaviour. Those who design urban and architectural spaces are

[123] Matthew Carmona, "The Place-Shaping Continuum: A Theory of Urban Design Process," *Journal of Urban Design* 19, no. 1 (2014).
[124] Dovey, *Framing Places: Mediating Power in Built Form*. Abstract.
[125] Peter Meusburger, Derek Gregory, and Laura Suarsana, eds., *Geographies of Knowledge and Power* (Dordrecht: Springer, 2015).
[126] Ibid.
[127] Steven Lukes, *Power: A Radical View*, 2 ed. (New York: Palgrave Macmillan, 2005). See also Roderick Bell, David V. Edwards, and R. Harrison Wagner, eds., *Political Power: A Reader in Theory and Research* (New York: Free Press, 1969).
[128] Dovey, *Framing Places: Mediating Power in Built Form*. P12.
[129] Ibid. P207.

complicit in constructing forms that support socio-spatial power structures.[130] Once constructed, built form stabilises meaning, frames power relations and mediates behaviour and identity. In this way, built form not only supports power relations but it actively constructs and reproduces them.[131] This process describes how branding and spatial identity are formed in support of more forceful measures of control and coercion. Place as a reflection of power structures is unsurprising, given that those with power are the ones who are responsible for place creation. However, the complicity of designers in enabling control must be acknowledged. As Dovey notes, architects and planners "cannot claim autonomy from the politics of social change."[132] Analysis of power and space from Carmona and Dovey reveal that as power structures become embedded in the social-spatial structures of everyday life they become harder to identify. Power is unquestioned if it is concealed and is more effective at control. This research project engages with both built form and practices of social life in exploring the relationships between power and place.

Understanding how power can be expressed and performed as spatial control requires an exploration of theories of security. Relevant contemporary theory examines how the concept of 'security' has come to pervade discourses of state power, responsibility and control. Security here refers to national security and the protection against threats from non-state actors particularly terrorist organisations and radicalised individuals. This is relevant to this study as it aims to reveal and understand how security at a national level trickles down to form control strategies at the small-scale level of an individual public square. Parallel to this is a body of literature that critiques the infiltration of security thinking into the everyday spaces of urban life, highlighting the adverse effects on civic freedoms. Methods that control behaviour, access and use of public space in order to prevent criminal or otherwise dangerous or unwanted acts also control those people who are not involved in those behaviours. There is a balance between freedom and security in space – as control removes freedom from all in service of protection.[133] Security features, of the type that this research project examines, are increasingly being embedded into urban space, sometimes explicitly but often camouflaged.[134] As Steven Lukes notes, "power is at its most effective when least observable."[135] As such, concealing and embedding expressions of power will make them more effective.

[130] Ibid. Abstract.
[131] Ibid. P1-2. See also Jérôme Monnet, "The Symbolism of Place: A Geography of Relationships between Space, Power and Identity," *Cybergeo* (2011).
[132] Dovey, *Framing Places: Mediating Power in Built Form*. P1-2.
[133] Simpson, Jensen, and Rubing, *The City between Freedom and Security: Contested Public Spaces in the 21st Century*.
[134] Coaffee, "Protecting Vulnerable Cities from Terrorism: Enhancing the Resilience of Everyday Urban Infrastructure."
[135] Lukes, *Power: A Radical View*. P1.

The effects on city fabric by violent expressions of power are thoroughly analysed and critiqued by UK-based Israeli architect and academic Professor Eyal Weizman. Weizman's work uncovers the inherent connection between violence and architecture, which he describes as 'political plastic' – architecture is shaped by political forces and is the mouldable medium through which such forces become form.[136] Architecture and built form, therefore, can be read as a physical manifestation or recording of political forces and conflict over time. Weizman's work is a type of spatial archaeology that reveals the processes of political violence against built fabric through a close reading that he terms 'forensic architecture.'[137] This approach involves examining architectural ruins to identify, through layers of built fabric and material deformation, the political forces solidified within the building and the violent processes that violated the architecture. Weizman's forensic approach to reading built form, which involves field work observation and historical documentation, can be applied to urban spaces and serves as a precedent for my own research approach. This research project, and Weizman's example, both conceive of built form and space as documents or recordings of political processes. In my case, the process is the solidification power as constraining measures in PMGs.

Giorgio Agamben notes that the paradigm of security is the basic principle of contemporary state activities.[138] Agamben draws on Foucault to explain the how the move from discipline to security coincides with an opening of global politics and power relations. The relationship between those with power and those on whom power is exercised is transitory. In *Discipline and Punish*, Foucault explains how the power of the absolute divine-right sovereign gave way to the discipline society between the mid-eighteenth and the early-nineteenth centuries.[139] In this type of society, power is dispersed within authoritative institutions such as prisons, schools, and factories in a series of micropractices. Everyday lived spaces become complicit in a continual effort to mould bodies and minds to preferred and acceptable patterns of behaviour. Power that is dispersed through society's institutions replaces the power of the dominant person over others.[140] It is evident in the school, the factory, the military, culminating in the prison as the ultimate model of discipline. This type of power is 'disciplinary' because it eradicates deviance at the level of everyday life and is normalised to the point of invisibility. Gilles Deleuze's 'societies of control' model of power extends Foucault's diffusion of power further into everyday interpersonal interactions.[141] Societies of control are characterised by disciplinary action

[136] Yve-Alain Bois et al., "On Forensic Architecture: A Conversation with Eyal Weizman," *October* 156 (Spring 2016). P128.
[137] Weizman, *Forensic Architecture: Violence at the Threshold of Detectability*. P164.
[138] Giorgio Agamben and Carolin Emcke, "Security and Terror," *Theory & Event* 5, no. 4 (2001).
[139] Michel Foucault, *Discipline and Punish: The Birth of the Prison*, trans. Alan Sheridan (New York: Vintage Books, 1995)..
[140] Dovey, *Framing Places: Mediating Power in Built Form*. P21.
[141] Gilles Deleuze, "Postscript on the Societies of Control," *October* 59 (1992). 3-7.

that has been embodied within the individuals that it controls. It is even more insidious and hidden than disciplinary power because it still operates when the institutions of power are removed.

2.2.8 Preemption

In the above understandings of power, it always functions in one direction (from the top down) and only in the present. Terrorist violence ruptures this regular flow of power; moving it laterally and into the future. This temporal projection is a key justification for the doctrine of preemption. Preemption means to act in anticipation of a possible outcome; it is acting first in order to forestall or prevent the possible outcome from occurring. Preemption differs from prevention in that it acts on *possible* future events rather than known, or expected, future events. A preventative action exists in parallel with, or because of, a future event that is anticipated and thoroughly understood. The efficacy of preventative action is dependent on how well the future outcome is understood and predictable. A vaccination is a preventative action – it works because of detailed knowledge of the risk of contracting disease, what that disease can do and how it works. It only works because the risk is so well understood and the outcome inevitable unless preventative action is taken. Prevention is dependent on a future event. Preemption, on the other hand, is an action that is taken before the future event or outcome is understood. Preemptive action is independent of future events, it reacts to things which may or may not come to be. It is based on outcomes that must be imagined rather than known. Without the detailed knowledge and understanding that goes along with preventative action, preemption must imagine a range of possible outcomes. Journalist Mario Kaiser explains that prevention and preemption are chronopolitical – they deal with politics on a time scale rather than in space (geopolitical). They differ, however, in that prevention seeks to preserve the conditions of the present in the face of a dangerous future, whereas preemption seeks a reformation of the present in the face of a potentially catastrophic future.[142] It is this reforming of the present in reaction to a possible future that this project examines. Spatial structures, both physical elements and management procedures, are impacted in the present – in preparation for a worst-case scenario future.

Preemption, in this research project, relates to security measures that are implemented in the face of imagined threats to public space, particularly terrorism. Preemption is not a new strategic approach, but it has come into prominence in the years since the September 11 attacks. George Quester explains that preemption is a military strategy that has been around for several hundred years, first used by the British during the Napoleonic Wars.[143] Quester describes the emergence of preemption in military terms, noting that the boundary between preventative war and preemptive war depended on

[142] Mario Kaiser, "Reactions to the Future: The Chronopolitics of Prevention and Preemption," *NanoEthics* 9, no. 2 (2015).
[143] George H. Quester, "Two Hundred Years of Preemption," *Naval War College Review* 60, no. 4 (2007).

whether conflict was imminent and inevitable, or if peace might have been an option. If it is inevitable, it is appropriate to describe the action as preventative. After the First World War, the League of Nations recognised that preemptive tactics represented a significant threat to peace and sought to place stringent limits on preemptive action. Interestingly, the US government was pivotal in what became known as the 'Caroline Doctrine' of international law, which stressed that any act being preempted must be very imminent and the response should be proportional to the threat.[144] However, the changing geopolitical climate post World War Two and the threat of Soviet aggression heralded the weakening of these conditions, which escalated in the twenty-first century. The 'doctrine of preemption' emerged into the general public's consciousness after the attacks of September 11, 2001 and the George W Bush administration's subsequent 'War on Terror'. Quester notes that after September 11, US President Bush blurred the boundary between preventative and preemptive action with his attack on Iraq.

Philosopher Brian Massumi has led the theoretical analysis of the concept of preemption and its emergence as the dominant logic of political power at the beginning of the twenty-first century.[145] The future-oriented nature of terrorism means that threat incubates in the present which creates a build-up of tension requiring preemptive action to prevent disaster.[146] Preemption exists in the same liminal time of the future acting in the present that characterises the threat of terrorism, which has been so successfully exploited by terrorist propaganda. Because threat is a potential everywhere, networks of security are deployed throughout space, so that a preemptive response is ready anywhere at any time. "The response is spatialized and is intended to outflank the threat, to beat it."[147] Massumi's work has aided in understanding why certain controlling security measures are implemented in public space. And how they operate across time scales. Theories of preemption are particularly useful to explain both physical interventions and regulatory measures that do not appear to be actively responding to current or past risks within each space.

Professor Ben Anderson examines the way the 'future' has become problematized as a space of threatening uncertainty that legitimises preemption. The future could be risky, and so preparations must be made in the present. The precautionary nature of risk management seeks to prevent a future outcome by arresting the process of its emergence before it reaches a certain critical limit. Preemption, on the other hand, seeks to intervene prior to the threat emerging.[148] Preemption is a

[144] Quester, "Two Hundred Years of Preemption": 17.
[145] Massumi, *Ontopower: War, Powers, and the State of Perception*. And Rice, "The Space-Time of Pre-Emption: An Interview with Brian Massumi.": 32-37.
[146] Anderson, "Preemption, Precaution, Preparedness: Anticipatory Action and Future Geographies." 780.
[147] Rice, "The Space-Time of Pre-Emption: An Interview with Brian Massumi." 37.
[148] Anderson, "Preemption, Precaution, Preparedness: Anticipatory Action and Future Geographies.": 789-790.

strategy to address the problem of the future's unpredictability and the threats inherent in the unknown. However, by acting in anticipation of the future, preemption brings futures into being in the present where they unfold in space.[149] Preemptive counterterrorism changes the nature of everyday security of public space, leading to increasingly militarised and intelligence-reliant practices of control that act indiscriminately on all members of the public. Evidence of this is directly experienced in public spaces through increased control and suppressive security measures. These measures are closely examined in this work.

Dr Christos Boukalas notes that, "As policing is focused on punishing crime before it occurs; the entire population is caught, as potential criminals, in the gigantic dragnet of intelligence. This implies that the assumption of guilt is de facto valid for all."[150] There is a dialogue between Boukalas' work and that of Giorgio Agamben, who examines the contemporary security state in his work on the 'State of Exception'. Agamben explains that technologies and methods of control that were devised in response to criminal behaviour are increasingly being extended for use on the regular citizen.[151] This creates a situation in which "every citizen is a potential terrorist", every person in public space is treated and monitored as if they are an emerging threat.[152] This aligns with Boukalas' examination of the role of intelligence and policing in service of security. This situation reveals a level of paranoia in state politics which results in expressions of control that can be destructive when applied to innocent citizens.[153] Agamben's work here explores a contemporary condition of state power that has emerged in recent times, justified and legitimised by the priorities of the national security state. Paranoid expressions of power are, in fact, applied to everyday citizens through control measures applied in public spaces in the name of security.

Threats create security emergencies that require swift and decisive responses from governments. Emergency is the everyday condition of Agamben's 'state of exception' and is an example of the proliferation of the security paradigm.[154] States of emergency legitimise, justify and normalise expressions of state power in everyday life that would historically have constituted national security apparatuses.[155] States of exception support the infiltration of preemptive thinking into civil, military

[149] Ben Anderson and Peter Adey, "Future Geographies [Editorial]," *Environment & planning A* 44, no. 7 (2012).
[150] Christos Boukalas, "No Exceptions: Authoritarian Statism. Agamben, Poulantzas and Homeland Security," *Critical Studies on Terrorism* 7, no. 1 (2014). 112-130.
[151] Giorgio Agamben, *State of Exception*, trans. Kevin Attell (Chicago: University of Chicago Press, 2005).
[152] "For a Theory of Destituent Power.": 44. And: *Homo Sacer: Sovereign Power and Bare Life*, Meridian (Stanford, Calif.: Stanford University Press, 1998).
[153] Jonathan Bach, "Power, Secrecy, Paranoia: Technologies of Governance and the Structure of Rule," *Cultural Politics* 6, no. 3 (2010).
[154] Adey, Anderson, and Graham, "Introduction: Governing Emergencies: Beyond Exceptionality." 3-4.
[155] Ben Anderson and Peter Adey, "Governing Events and Life: 'Emergency' in Uk Civil Contingencies," *Political Geography* 31, no. 1 (2012).

and humanitarian emergency responses.[156] The contemporary proliferation of 'emergency' as a political condition is further explored by Ben Anderson and Peter Adey.[157] Where historically emergencies were rare and catastrophic events, twenty-first century geopolitics and national security render 'emergency' as an everyday civil condition. Boukalas critiques Agamben's theory of a permanent state of exception / emergency, and seeks to overcome Agamben's analytical limitations by proposing strategic-relational approach to contemporary state power that is informed by the work of Nicos Poulantzas.[158] Michael Sorkin's work, on the other hand, aligns with Agamben's description of the universal application of preemptive control. Sorkin examines the impacts of national security and defensive thinking on architecture and urban space.[159] Sorkin explains that the only recourse to the state of exception, where every person and every place is a potential threat, is to fortify every place and survey every person.[160] As this project will demonstrate – public spaces are fortified in multiple ways, and layers of surveillance act on every person within those spaces.

While the future is unknown, some possible outcomes are, at least partially, predictable. Preemptive action is targeted at predicted future outcomes. Some researchers have attempted to use data and code to infer a range of likely futures, hopefully making preemptive action more accurate.[161] This is an attempt to turn possible threats into probable risks and strengthen the authority of states to take preemptive action.[162] Nassim Taleb argues, however, that the risks we can predict and understand are not the ones we should fear. The real threat comes from the completely unexpected act that we could never have conceived and have no existing strategies to mitigate or respond to it. Taleb calls these events 'Black Swans' and cites the September 11 attacks as a key example – an event so improbable and catastrophic that its impact restructured culture and politics.[163] In the aftermath of the September 11 attacks the 9/11 Commission cited a 'failure of imagination' on the part of the secret service to predict the attacks.[164] This opinion was mirrored by the British enquiry into the July 7, 2005 London transport bombings. Reports from both enquiries recommend a broadened and routinised intelligence gathering and analysis of possible, imagined futures.[165] Here we see quite clearly the impact of low

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[156] Didier Fassin and Mariella Pandolfi, *Contemporary States of Emergency: The Politics of Military and Humanitarian Interventions* (New York: Zone Books, 2010).

[157] Anderson and Adey, "Governing Events and Life: 'Emergency' in Uk Civil Contingencies." And Peter Adey and Ben Anderson, "Event and Anticipation: Uk Civil Contingencies and the Space-Times of Decision," *Environment & Planning A* 43, no. 12 (2011).

[158] Boukalas, "No Exceptions: Authoritarian Statism. Agamben, Poulantzas and Homeland Security."

[159] Michael Sorkin, *Indefensible Space: The Architecture of the National Insecurity State* (New York: Routledge, 2008).

[160] Ibid.

[161] L. Amoore, *Theory, Culture & Society* 28, no. null (2011).

[162] Louise Amoore, *The Politics of Possibility: Risk and Security Beyond Probability* (Durham: Duke University Press, 2013).

[163] Taleb, *The Black Swan: The Impact of the Highly Improbable*.

[164] Marieke De Goede, "Beyond Risk: Premediation and the Post-9/11 Security Imagination," *Security Dialogue* 39, no. 2-3 (2008).

[165] Ibid.

probability, high impact events, such as 9/11 and July 7, in normalising the preemptive approach to security that concretises imagined future outcomes in the present. On the other hand, the London Coroner's enquiry into the deaths of July 7 rejected the idea that security agencies should have been able to predict and prevent the attacks, or to have identify the perpetrators as potential threats prior to the attacks.[166] Despite this rebuke of the idea that possible future threats can be anticipated in the present, preemption remains a dominant and routine security paradigm and place shaping force in the contemporary moment. The place shaping capacity of preemptive strategies is explored in this research.

The emergent capacity of power to function temporally (chronopolitics) as well as spatially (geopolitics) gives public spaces heterotopic characteristics. Unlike utopias, which are unreal spaces, heterotopias (literally 'other place') are real spaces of fundamental difference that exist outside of the places they relate to.[167] For example, heterotopias of deviation are places wherein persons exist whose behaviour is outside (deviates from) the accepted social norm, such as prisons or psychiatric hospitals. Under contemporary preemptive control all users of public space are potential terrorists who must be controlled in space as if their behaviour were deviant.[168] Brian Massumi explains how preemption drives a reconfiguration of existing forms of power, changing their object and mode of operation and reintegrating them as 'ontopower.'[169] Massumi's theory of preemption and its reconfiguration of traditional power relations is a key theoretical framework for this research. Preemption adds a temporal dimension to existing practices of spatial security; identifying and countering threats before they emerge. The existing literature provides evidence of spatial control strategies, and the logic of preemptive counterterrorism. However, there is a gap where the existing research does not thoroughly identify the influence of preemption on spatial control. Spatial observation and analysis, informed by Weizman's forensic architecture approach, will reveal impacts of controlling security measures driven by preemptive power within places of mass gathering.

[166] "Preemption Contested: Suspect Spaces and Preventability in the July 7 Inquest," *Political Geography* 39 (2014).
[167] Foucault, "Of Other Spaces, Heterotopias."
[168] Ibid.
[169] Massumi, *Ontopower: War, Powers, and the State of Perception*. vii.

3. Research & Analysis Method

This research uses a multiple case study analysis method in order to understand generalised spatial conditions.[170] Bent Flyvbjerg notes that case study methods have been critiqued for not producing generalisable knowledge. He argues that this position is incorrect, and case studies can provide universal outcomes. [171] This is a useful method, however, for testing theory and measuring differences and similarities in varied places. Dovey notes that the typical tools of place research, including "mapping, observing, interviewing, analysing" [172] are strongly based in evidence. These are the tools used for this project. There are two main sources of data for this project, spatial observation and historical research. The project utilises primary source data related to the present situation and historical development at the case study sites, and secondary sources to contextualise the current state. Primary source data was collected through on-ground spatial observation of the case study sites to identify the spatial layout of security measures including how they interact with each other and events in the space. The multiple case study approach allows impacts observed across cases to be generalised and understood in isolation from their social, historical and political contexts.

This study considers the historical development of spatial control and security within each case study PMG to determine how experience of threats has, or has not, informed the spatial logic of security. Historical analysis of spatial layout, interventions and planning policies reveals the forces that shaped the development of security at each PMG over time. Historical data validates the research hypothesis and triangulates the spatial observation evidence. If a universal, generalizable condition is revealed that cannot be explained by historical developments of security in response to contemporary threats then the doctrine of preemption will provide the political justification. The collected data are analysed within the framework of preemption as a political logic that reconfigures relationships of security response and prevention in urban areas. Spatial observation data is presented visually as a collection of maps, diagrams and photographs that describe the physical arrangement, distribution and relationships of the security measures within the space. Observation data are combined with archival historical research of original plans, early photographs, and government documents relating to the site. This historical aspect should validate the hypothesis that the preemptive expansion of security measures is a recent condition made possible by the globalisation of counterterrorism doctrine and states of emergency.

[170] Robert K. Yin, *Case Study Research: Design and Methods*, 4th ed. (Thousand Oaks, California: SAGE, 2009).
[171] Bent Flyvbjerg, "Five Misunderstandings About Case-Study Research," *Qualitative Inquiry* 12, no. 2 (2006).
[172] Dovey, *Becoming Places: Urbanism/Architecture/Identity/Power*. P8.

Case study site analysis allows the researcher to be immersed in the place and its lived experience. The workings of the system of place, and the relationships between space, object and people cannot be understood from the outside. The researcher needs to be engaged with the everyday workings of the place. This active method is influenced by action research but does not involve participation of the researcher beyond observation. Action research methods are often used in urban planning to better incorporate the participation of local residents and users of place, and to empower the community's involvement in the planning process.[173] The immersive method used in this project involved visiting each place as an observer noting how users, including myself, interacted with the place. Experiencing the place to determine what types of behaviours were prohibited or facilitated by controlling security measures. Then, what impact does that have on life within the place. It was necessary to dwell in each site and move through them in order to understand and critically examine how controlling security operated. However, I did not actively participate in events and practices at the sites, and there was no intention to facilitate change.[174] This approach was used alongside traditional research methods such as historical and bibliographic analysis, and study of planning regulations.

Note on Mapping

Mapping is not just a representational tool. It has agency to reveal information about the site and is a method of design research. This study uses multiple maps and diagrams of the case study sites. Maps are used as data collection, as analysis tools, and as a way to represent the data. Maps can also become products of knowledge about the place.[175] Maps are selective, however, and cannot reveal every detail or process of complex places.[176] As such, maps and diagrams in this project are an abstraction of preferences and decisions made on site, and in the subsequent analysis process. They are not neutral and true representations, but one version of the place.

This project draws on James Corner's description of mapping as a process of uncovering information, hidden conditions, and operations of place.[177] As Dovey explains, "maps mediate between the real and the virtual, they represent and create."[178] Maps and diagrams used in this study have proven to be most useful and revelatory tools.

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[173] Hok Bun Ku and Jackie YC Kwok, "The Action Research Practice of Urban Planning, an Example from Hong Kong," in *The Sage Handbook of Action Research*, ed. Hilary Bradbury (London: SAGE Publications, 2015).
[174] Hilary Bradbury, *The Sage Handbook of Action Research* (London: SAGE Publications, 2015).
[175] Kim Dovey, Elek Pakfka, and Mirjana Ristic, eds., *Mapping Urbanities: Morphologies, Flows, Possibilities* (New York: Routledge, 2018).
[176] Ibid. P7.
[177] James Corner, "The Agency of Mapping: Speculation, Critique and Invention," in *Mappings*, ed. Denis Cosgrove (London: Reaktion Books, 1999). P250.
[178] Dovey, *Becoming Places: Urbanism/Architecture/Identity/Power*. P29.

3.1 Spatial Observation

The spatial observation case study method involved visiting the sites to identify security features in place and determine where they are located, how they function and how they changed over time or in response to events.[179] All site visits were conducted in 2017: at Federation Square in March and April, at Trafalgar Square in June, and at Hashemite Plaza in July. A follow up site visit was made to Federation Square in November 2017 as new temporary concrete blocks were installed soon after the initial site visits. Fieldwork involved observing the space by moving through it and / or remaining in a fixed location. Site visits were undertaken over a variety of differing conditions including weekdays, weekends, days and evenings, public and religious holidays, different weather conditions and during programmed events. Observations were recorded in site notes and sketched maps noting the position of the features, their number, if they are fixed or movable, and any other relevant information. The maps reveal the arrangement of features within the space, their interactions with each other, and how they relate with users of the space to create a field of control acting in the spatial as well as temporal dimensions. Site visits reveal how security is often contingent on conditions at the site, particularly fluctuations in habitation. Observations were recorded in site notes and sketched maps noting the position of the features, their number, if they are fixed or movable, and any other relevant information.

Jeremy Németh and Stephan Schmidt contend that the lack of pragmatic research into the role of control in moulding the use and features of public space is due to "the absence of an adequate tool with which to conduct such an analysis."[180] To address this lacuna Németh and Schmidt developed their own analytical index to measure control of public spaces. Their index is comparable to that produced by Van Melik, Van Aalst and Van Weesep which analysed secured and themes spaces in Rotterdam. Van Melik's index identified three dimensions of secured space (surveillance, restraints on loitering, and regulation) and rating the presence of each on a *low, medium, high* scale.[181] Németh and Schmidt's index is similar to Van Melik's in that it rates the presence of control features on a three-tier scale but it examines more features in greater detail. As well as these precedent studies my research also draws on Taner Oc and Steven Tiesdell's four components of spatial control and restriction: animated presence, panoptic devices, regulatory procedures, and fortress measures.[182] These precedent example tools identify spatial control features but do not help to assess how

[179] Yin, *Case Study Research: Design and Methods*.
[180] Jeremy Németh and Stephan Schmidt, "Toward a Methodology for Measuring the Security of Publicly Accessible Spaces," *Journal of the American Planning Association* 73, no. 3 (2007). 283-297.
[181] Van Melik, Van Aalst, and Van Weesep, "Fear and Fantasy in the Public Domain: The Development of Secured and Themed Urban Space."
[182] Oc and Tiesdell, "The Fortress, the Panoptic, the Regulated and the Animated: Planning and Urban Design Approaches to Safer City Centres." 192.

extensively they are arranged and distributed through space, or the relationships between them. My own tool to measure spatial control during site observation fieldwork (Table 1 below) draws on these past studies but has been adapted to suit this study. This tool demonstrates how much control is exercised within each case study today; and can be applied retrospectively to understand the changing securitisation of PMGs over time. Data collected with this tool can then be mapped and diagrammed so that spatial relationships and patterns across cases can be abstracted and analysed. The tool helps to compare the relative level of security across the case study sites.

Spatial observation targeted three categories of security measures which were further broken into specific techniques (refer also Table 1) as follows:

Panoptic Devices

Panoptic devices include CCTV monitoring, private security personnel, police presence, and passive surveillance by users of the space. Design that facilitates passive surveillance is often complemented by government campaigns which encourage the public to report suspicious activity.[183] As will be demonstrated in a later chapter, each of the three case study sites are arranged in a way that encourages and facilitates members of the public to become an audience for activities within the space. Usually, this is in a passive manner; but each space is also able to facilitate active observation and participation in staged events.

Regulatory Procedures

Regulatory procedures include laws and regulations relating specifically to the site; and the laws of the city or country in which the site is located. More important to this study is the visibility of those rules within the site so users are made aware of behaviour expectations and can act accordingly. Related to this is an active enforcement of these rules by police or security staff. Behaviour rules can also be implied by the design of the space which might make prohibited behaviours difficult. Site branding advertised the meaning of the place, indicating to users the purpose of the site, who is responsible for it, and encourages behaviours that respect the intended meaning.

Fortress Measures

Fortress measures are the most visible and physically active control measures within public spaces. Physical access is access control through fences, gates, bollards, turnstiles and physical barriers that control access into and out of the site. Segregation is making parts of the space accessible only to certain groups of people or at certain times. This is related to hours of operation – is the space

[183] Crime-Stoppers-Victoria-Ltd., "Say Something," https://www.saysomething.org.au/. And Uk Government, "Report Suspicious Activity to Mi5," Government Digital Services, https://www.gov.uk/report-suspicious-activity-to-mi5.

accessible all the time or can it be closed? Privatisation is related to the management and ownership of the site. A privately owned or managed space is more easily controlled through rules, panoptic devices and hours of operation than one that is truly public.

Feature	*Level*	*Criteria*
Panoptic Devices		
CCTV	L	None present
	M	One camera
	H	Two or more cameras
Private security personnel	L	None present
	M	One guard
	H	Two or more guards and/or vehicle
Police presence	L	None present
	M	Two officers
	H	Three or more officers and/or vehicle and/or station
Ease of passive surveillance	L	No provision for dwelling and observing space
	M	Part of the space is easily observable from some vantage points
	H	The whole space is easily visible
Regulatory Procedures		
Visible rules	L	None present
	M	One visible sign / posting of local or special rules
	H	Two or more visible signs/postings of local or special rules
Enforced rules	L	Local regulations, enforced by police
	M	Local regulations, visibly enforced by police and private security
	H	Special regulation, visibly enforced by police and private security
Behaviour rules implied by design	L	None present
	M	One or two examples
	H	Several obvious examples throughout space
Site branding	L	Site has no naming or representational branding
	M	Site has naming or representational branding but not both
	H	Branding through naming and representational measures
Fortress Measures		
Physical access	L	No barriers or gates and access is visible and easy
	M	No barriers or gates but access not highly visible and/or easy. Or, highly visible access but with gates or barriers
	H	Barriers and gates, access not visible and/or easy
Segregation	L	No areas of conditional use
	M	One area restricted to certain people or uses
	H	Two or more (or one large) area of restricted access and use
Hours of operation	L	Open 24 hours, 7 days including holidays
	M	Partly open past business hours and/or on weekends
	H	Open only during business hours
Privatisation	L	Publicly owned, publicly managed
	M	Publicly owned, privately managed
	H	Privately owned, privately managed

Table 1: *Measurement tool to analyse presence of spatial control features*

This measurement table tool is used to gauge the overall relative level of security control acting on each site. This table provides a simple comparison tool within each site and between them. It is used to record, and demonstrate, which security measures are most prolific.

3.2 Historical Data Collection

Data collected through spatial observation is triangulated with supporting evidence from historical maps and plans, literature and policy. Historical research into each case study site checks the validity of the hypothesis of generalised impacts isolated from context. This involves researching how the space has changed over time to attempt to find alternative explanations for the contemporary situation. In other words, does the present situation reflect a site-specific design continuum, or a generalised condition of preemptive spatial control?

Historical data was collected through desktop searching, databases and archives. Sources include original drawing, early photographs and images, policy documents, visual representations of both public space design and security measures integrated into those spaces. For each site, local libraries and archives were accessed for resources relating to the place.

3.3 Secondary Source Data

Historical analysis and critique of sources in this research project is guided by the practices and traditions of historical interpretation described by Martha Howell and Walter Prevenier.[184] Secondary source data in the form of news media reports, academic literature and public commentary assists with validity checking the hypothesis that spatial impacts of security and control exists universally and independently of context. For each case study site, I collected and reviewed available literature describing the historical development of the site and its relationship to the broader city. These documents included personal accounts of life in that place, photography or news articles, and subsequent academic analysis. Secondary source material of this nature helps to build a broader picture of the site and how security additions and upgrades reflect changing conditions of the city or the nation. The case study sites each perform a representational function, whereby security at the place reflects security and relevant fears within the wider community. As these accounts are often personal reflections or articles that discuss proposed changes to the place they need to be cross referenced as much as possible with historical maps, photographs and official planning documents. Local academics, historians and designers also provided valuable insight into each place and its context.

3.4 Case Study Selection Analysis

The multiple case study approach observes controlling security measures in three global PMGs. Selected case study locations are Federation Square in Melbourne, Australia; Trafalgar Square in

[184] Martha C. Howell and Walter Prevenier, *From Reliable Sources : An Introduction to Historical Methods* (Ithaca, N.Y.: Cornell University Press, 2001).

London, UK; and Hashemite Plaza in Amman, Jordan. The space of a PMG includes the designed layout (plan), as well as the field of social, cultural and political practices of everyday life. PMGs were chosen for this study because they are high risk public space, and attractive terror targets that:

- "Provide opportunity for attack in terms of accessibility and vulnerability
- Cause high impact imagery likely to be generated by an attack
- Have high symbolic value, and
- Have consequences in terms of mass casualties, economic impact and public anxiety in the broader community"[185]

The three sites were chosen for their diversity and availability of data; representing three places with different contexts and histories but similar contemporary security challenges and response strategies. Melbourne has a negligible history of terrorism but nevertheless imposes counterterrorism strategies and guidelines onto public places. London, however, has an extensive history of terrorism and political violence in urban areas. Melbourne and London have different historical experiences of security threats and terrorism but similar cultural and political contexts. Amman is culturally and socially different from the other two cities but with some historical experience of security threats. The three cities, therefore, provide contextual diversity, and the chosen sites within those cities reflect that same condition. Sites were selected that serve a representational function, functioning as a symbol or brand that represents the wider city or aspects of the nation. Federation Square commemorates the federation of Australia in 1901, an event which is memorialised in the built fabric of the place through Paul Carter's Nearamnew artwork that inscribes historical and poetic text into the pavement. Trafalgar Square is quickly recognisable and is often used to represent London, and by extension the UK, for global audiences in tourist campaigns, and film and television produced both in the UK and abroad. It is named for the Battle of Trafalgar (1805) and its naming and monuments present an aspect of national pride and achievement. Hashemite Plaza is similarly named and shaped as representation – in this case for the Jordanian Royal Family and their role in the city, the nation and the Arab region.

The three sites conform to the defined PMG of public square/plaza, therefore meeting the spatial typology requirement of the study, while allowing the hypothesis to be tested across cultural and historical boundaries. It is important that the case study sites have different historical experiences of security threats, such as terrorism, so that a generalised contemporary condition cannot be otherwise explained as a reaction to past dangers. Similarly, the diverse social, cultural and political contexts of the sites mean that patterns of spatial logic across cases cannot be explained by common culture and

[185] Australia, "National Guidelines for the Protection of Places of Mass Gathering from Terrorism." 3.

social structure. By focusing on the generalizable features of space that exist despite cultural differences this study avoids the difficulty of comparing cultural differences across a universal platform. While the contexts are variable, the spatial type of public square/plaza with an active presence of controlling security measures is a constant across the three sites.

PMGs are characterised by a concentration of people on a predictable basis in either venues or precincts.[186] PMGs are a useful spatial type for this project as they are open to the public (unlike private entertainment venues or shopping centres), have both predictable and unpredictable fluctuations in concentrations of people, attract tourists, mix transient use with practices of occupation, and are highly visible – both within their surroundings and as landmarks. Fluctuation of occupation relates to everyday flows of people around business hours and weekends, and planned events or programme within the space. The public square PMG typology, therefore, has a complexity of usage patterns, flows of activity, practices of dwelling, and events.

3.5 Analysis Method

Analysis involves mapping the spaces in isometric projection and then layering the control measures onto the maps. The maps are spatial diagrams that reveal and help explain the underlying workings of controlling security. Small areas within each of the sites are highlighted and examined in closer detail to demonstrate the impacts of controlling security measures at a more human scale. Spatial strategies and arrangements are examined to identify generalised approaches and affects across the case study sites. The approach to spatial representation and analysis in this study is influenced by the substantial existing body of work in this area. However, it does not apply any existing methodology or approach specifically, and does not attempt a semiotic analysis of the language of space. Spatial theorists and practitioners who have been particularly useful for my analysis of space and site include Kim Dovey,[187] Hillier and Hanson,[188] Andrea Kahn,[189] Michel Foucault,[190] Rochus Hinkel,[191] Setha Low[192], and the

[186] Victoria Police, "State Security and Terrorism," State of Victoria, http://www.police.vic.gov.au/content.asp?Document_ID=42909. Last updated April 13, 2016.
[187] Dovey, *Framing Places: Mediating Power in Built Form*. And *Becoming Places: Urbanism/Architecture/Identity/Power*. And Dovey, Pakfka, and Ristic, *Mapping Urbanities: Morphologies, Flows, Possibilities*.
[188] Hillier and Hanson, *The Social Logic of Space*.
[189] Kahn, "Overlooking: A Look at How We Look at Site."
[190] Foucault, *Discipline and Punish: The Birth of the Prison*.
[191] Hinkel, "Private Encounters and Public Occupations: A Methodology for the Exploration of Public Space."
[192] Setha Low and Neil Smith, *The Politics of Public Space* (New York: Routledge, 2006). And, Setha Low, Dana Taplin, and Suzanne Scheld, "The Cultural Life of Large Urban Spaces," in *Rethinking Urban Parks*, ed. Setha Low, Dana Taplin, and Suzanne Scheld (University of Texas Press, 2005).

student work collected in *The City Between Freedom and Security*[193] the historical analysis of Jianfei Zhu,[194] and the methodology presented by Van Melik et al[195] among others.

The process of mapping and drawing the sites is itself part of the analysis and should not be considered a neutral or unbiased process. The case study sites have each been mapped and drawn multiple times in their history – for construction, alterations and upgrades, to provide information to visitors, for promotion, and as part of wider maps of the city. Each rewriting produces a particular knowledge of the space, while revealing preferences and intentions of the cartographer.[196] The process of map making and representation for this research project adds another layer to the history of place description for each site. I have given preference to describing objects and practices in the space that help illuminate the relationships and logics that I am trying to understand and demonstrate. The maps are geographical, but they also represent temporal spatial reality as they were produced based on my observations at moments in time. James Corner's analysis and critique of the process of map making and its impact on site understanding is revelatory for this work.[197] Similarly, Andrea Kahn's critique of the historical and typical approach of designers to view, and represent, sites as blank space waiting to be improved demonstrates that design has denied the agency of place through the process of representation.[198] Kahn demonstrates that formally trained designers tend to view site as discrete pieces of space that do not exist or have influence outside their boundaries. This perpetuates a myth that site is contained and controllable, rather than part of a wider ecosystem and series of networks.[199] She explains that traditional site analysis and mapping is looking for a lack within the place that design can fill, erasing the meaning that the site itself produces through use and relationship.[200] This research project relies heavily on maps, and the process of mapping, and it does so with these critiques in mind while not claiming to have produced true and value-neutral depictions of place. This research is interested in the relationships of power, users, and physical form at the site, and is specifically interested in revealing and understanding the marks of those relationships written into the place. This approach draws on Kahn's idea of 'site construction' – an extractive method that recognises the inherent orders and patterns within site.[201] Kahn's method views site as complex lived place, with inherent relationships, traces of movement, and constant change – of occupants, events, seasons etc. The difficulty with this method of analysis is that it is a static representation of fixed, physical reality.

[193] Simpson, Jensen, and Rubing, *The City between Freedom and Security: Contested Public Spaces in the 21st Century*.
[194] Zhu, *Chinese Spatial Strategies : Imperial Beijing, 1420-1911*.
[195] Van Melik, Van Aalst, and Van Weesep, "Fear and Fantasy in the Public Domain: The Development of Secured and Themed Urban Space."
[196] Leopold Lambert, "Cartography & Power," *The Funambulist* 18, no. July-August (2018).
[197] Corner, "The Agency of Mapping: Speculation, Critique and Invention."
[198] Kahn, "Overlooking: A Look at How We Look at Site."
[199] Ibid. P176-179.
[200] Ibid. P180.
[201] Ibid. P182.

My intention is to use these recordings of the physical space to better understand the relationships and lived experiences that constitute public space, supported by built form.[202] This understanding also draws on Matthew Carmona's descriptions of competing power relations, expressed as 'agency' and 'structure'. Carmona describes how power relations are critical in shaping urban form.[203]

3.6 Limitations of the Method

There are limitations to the method described above. The site visits cannot have included every possible site condition. The method also doesn't reveal the policies, strategies and motivations behind the positioning and deployment of security measures. Spatial observation fails to reveal the full workings of the features; for example, how CCTV is monitored and by whom. Practical limitations included time constraints and physical challenges such as coping with extreme weather and personal safety. Changes have occurred at each of the sites since the research began. Most notably at Federation Square, where one of the buildings has been demolished and a new underground train station entrance is currently under construction. This project has had to disregard later alterations to the sites and deal only with the condition of place at the time of the site visit. Subsequent physical changes do not form part of the data of this study.

Each site was constructed within the last 200 years, limiting the study's ability to examine the historical changes at each site. This is mitigated, however, by research into the role of security and threat environments in the historical development of the broader city and nation in which the case study site is located. Nevertheless, as the global security environment has progressed and altered rapidly in recent decades there are adequate recent security adaptations at each place to demonstrate responses to evolving threats. Another limitation is that each of the sites has been influenced by British planning and colonial government practices which arguably undermines the aim to achieve socio-cultural and political diversity. Trafalgar Square has, clearly, been entirely shaped by British ideals as it is located in England. Federation Square was designed and built well after the end of British colonial rule in Australia, although the country remains part of the Commonwealth and is not free of British cultural and social influence and retains Queen Elizabeth II as head of state. Federation Square was designed by a London-based architecture practice and built on city fabric that was laid out in colonial times. Colonial planners had the advantage of unurbanised land and did not have to work around existing structures and practices of an urban environment. They did, of course, tend to ignore or discredit the land use practices of the local indigenous population. The colonial plan of Melbourne

[202] Hinkel, "Private Encounters and Public Occupations: A Methodology for the Exploration of Public Space." NP.
[203] Carmona, "The Place-Shaping Continuum: A Theory of Urban Design Process."

remains evident and continues to shape how Melburnians view and experience the physical structures of their city.

Jordan was under British control following the Sykes-Picot agreement of 1916; the 'Emirate of Transjordan' was a British mandate under this system until independence in 1946. The British governors produced numerous plans for national development and urban layouts. Such plans for Amman introduced public space ideals that were Western European in nature and did not necessarily reflect the local experience of, desire for, or understanding of public open space. Hashemite Plaza as it exists today was designed and built well after the British mandate period had ended although it reflects influences of western ideals of public open space. Each site has a clear association with Britain and Western European planning expertise and social practices of public space. However, there are very few places in the world which have not been touched by British, or Western European, colonial influence so this condition is almost unavoidable. A more detailed discussion of the history and development of each site is found in the following sections.

4 Case Study: Federation Square, Melbourne, Australia

4.1 Relevance & Research Potential

There is limited critical literature and research within Australian planning and design that analyses or questions security and control within public space. Relevant literature for this site is produced within industry, and from academia in the planning and design sphere as well as criminology, national security, politics and sociology. A recent example of industry comment critiquing control in Australian public space comes from Sandra Kaji-O'Grady, who warns that onerous security creates an architecture of fear which can be damaging to public freedom in space.[204] Kaji-O'Grady explains that oppressive security creates spaces that respond to, and therefore reflect, a battlefield condition. Aaron Magro, on the other hand, argues that Australian public spaces were designed from their onset to control.[205] Colonial leaders deliberately excluded public squares from their new cities to provide no place for people to gather and rebel against the distant government. The legacy of this is visible in Melbourne which had no major public piazza until City Square was opened in 1980 and Federation Square in 2002. City Square has been of limited success as a public space in the city; its history of alteration and design changes over its 30-year life demonstrate that it has never really been adequate.[206] Magro argues that any concession to public space in Australian cities is highly controlled via restricted access and, using Federation Square as an example, by discouraging dwelling. While it is true that Federation Square provides things to do this programme actually does encourage people to dwell and occupy the space. It could also be argued that Federation Square became a preferred site for protest as it provided an alternative location that kept marchers off city streets. Public gatherings thus moved to an open space wherein they are more easily monitored and controlled.

There are several Australian institutes and academic research networks providing relevant local insight regarding security and counterterrorism. University-based groups include The Australian National University's National Security College in Canberra, the Addressing Violent Extremism and Radicalisation to Terrorism (AVERT) Research Network based at Melbourne's Deakin University and including researchers from various fields; the Global Terrorism Research Centre (GTReC) and Monash University, also in Melbourne; and other institutions such as Edith Cowan University in Perth that offers a Bachelor degree in Counter Terrorism Security and Intelligence. In the private sector, the Australian Institute of International Affairs and the Australian Strategic Policy Institutive are thinktanks

[204] Sandra Kaji-O'Grady, "We Must Not Forsake Public Space for an Architecture of Fear," *Architecture AU* Discourse (2015).
[205] Aaron Magro, "Legacies of Empire: Control by Design," *Foreground* (2017).
[206] Khalilah Zakariya, Nor Zalina Harun, and Mazlina Mansor, "Spatial Characteristics of Urban Square and Sociability: A Review of the City Square, Melbourne," *Procedia - Social and Behavioral Sciences* 153 (2014). And: Zakariya Khalilah, Harun Nor Zalina, and Mansor Mazlina, "Space and Sociability: Mapping Melbourne's City Square," *Asian Journal of Quality of Life* 1, no. 2 (2016).

researching counterterrorism and security as they form part of broader international relations and national security issues and strategies. Jacinta Carroll, the director of National Security Policy at the ANU's National Security College, and former head of Australian strategic Policy Institute's Counter Terrorism Policy Centre, is an important researcher and leader in Australia's national security discourse.[207] There is also significant body of literature from the field of criminology that examines Australia's counterterrorism legislation – its efficacy and political justification.[208] As discussed in Chapter 2 Literature Review, there is a body of researchers working in the CT and security fields in Australia, however, there is currently limited connection between this work and researchers and practitioners in planning and design.

From an international perspective Melbourne, and Australia more broadly, is not at high risk of terror attack. [209] [210] It is not a major world city and therefore provides limited opportunity for propaganda for global audiences. Locally, however, Federation Square is a prominent and high-risk location, and therefore a useful case study to examine spatial control through security. Melbourne was the only Australian city featured in ISIS propaganda video from November 2016 which showed the intersection of Flinders and Swanston Streets, including Federation Square.[211] On 23 December 2016 seven people were arrested over a planned explosives and small weapon-based terror attack targeting Federation Square, Flinders Street Station and St Paul's Cathedral.[212] Most of the accused were Australian born and it is believed they self-radicalised, inspired by ISIS. [213] The plot was one of the largest in the country's history.[214] After the plot was foiled Australia's counterterrorism (CT) threat level remained at *probable* meaning that despite the very real local threat it posed the plot was not significant enough to impact the national threat level and had been contained. Australia's National Terrorism Threat Advisory System defines *probable* as "Credible intelligence, assessed by our security agencies, indicates that individuals or groups continue to possess the intent and capability to conduct a terrorist attack in Australia."[215] Significant security threats in Melbourne's CBD unrelated to religious

[207] Jacinta Carroll, "Counter-Terrorism in Australia," *United Service* 69, no. 1 (2018).
[208] Selda Dagistanli and Scott Poynting, "Terrorism and Anti-Terrorism Laws," in *The Palgrave Handbook of Australian and New Zealand Criminology, Crime and Justice*, ed. Antje Deckert and Rick Sarre (Cham: Springer International Publishing, 2017). And: Christopher Michaelsen, "Antiterrorism Legislation in Australia: A Proportionate Response to the Terrorist Threat?," *Studies in Conflict & Terrorism* 28, no. 4 (2005).
[209] Aon, "Aon Risk Maps - 2017," Roubini Global Economics, https://www.riskmaps.aon.co.uk/home.
[210] Bureau of Counterterrorism and Countering Violent Extremism, "Country Reports on Terrorism 2015," ed. US Department of State (US Department of State, 2016).
[211] John Silvester et al., "How Police Moved on a Threat to the City's Heart," *Age, The (Melbourne)*, December 24 2016.
[212] Tom Cowie, "What We Know," ibid.
[213] Angus Livingstone, "Vic:Melbourne Xmas Bomb Attack Foiled: Police," *AAP Australian National News Wire*, December 23 2016.
[214] Jacinta Carroll, "The Counterterrorism Yearbook 2017: Australia," *The Strategist* (2017), https://www.aspistrategist.org.au/counterterrorism-yearbook-2017-australia.
[215] Commonwealth of Australia, "Australian National Security: National Terrorism Threat Advisory System," Attorney-General's Department, https://www.nationalsecurity.gov.au/Securityandyourcommunity/Pages/National-Terrorism-Threat-Advisory-System.aspx.

extremism include the 1986 car bombing at the Police Headquarters on Russell Street in which one constable died; and the 1987 massacre of nine people at a Queen Street post office. This context justifies Federation Square as a relevant case study for contemporary security research and for this project.

Melbourne has never suffered a major terror attack (multiple casualties), is not a major world city and is not a high value target. Yet, Melbourne (and Australia more broadly) has extensive security and CT legislation and practices that are evident at Federation Square. This case study also addresses the lack of comprehensive academic research on the Australian experience. Victoria's State Government recently justified the installation of new concrete 'security barriers' in key city areas as a response to the threat of terrorism.[216] The barriers, which were temporary place-holders until a permanent design is finalised, are a reminder of the threats they are designed to protect against and are poorly integrated into the streetscape. These barriers add to an existing field of controlling security measures overlaid on city spaces. The temporary barriers have since been upgraded with permanent bollards or concrete blocks, depending on the location.

4.2 Description, Background & Historical Context

Federation Square is located at the southern edge of Melbourne's central business district, at the key intersection of Swanston and Flinders Streets (Figures 4.1 and 4.2). The site sits between the main city grid and the Yarra River, and adjoins Flinders Street Station, one of the city's main transport hubs. South of the site, Swanston Street becomes St Kilda Road, a major southern access route into the city which carries private vehicles, trams and bicycles. Federation Square's role is to be a central public meeting place for Melbourne and a focal point for civic arts and cultural activities.[217] The site combines open space with buildings largely programmed with public activities and cultural programmes but which also house for-profit private businesses such as retail and hospitality outlets. For the purposes of this research, the subject site includes all the pedestrianized open space within Federation Square as per the diagram at Figure 4.3, below.

[216] Daniel Andrews, "New Concrete Safety Barriers to Protect Our City," news release, 2017, http://www.premier.vic.gov.au/new-concrete-safety-barriers-to-protect-our-city/.
[217] Federation-Square-Pty-Ltd, "Fed Square," http://fedsquare.com/.

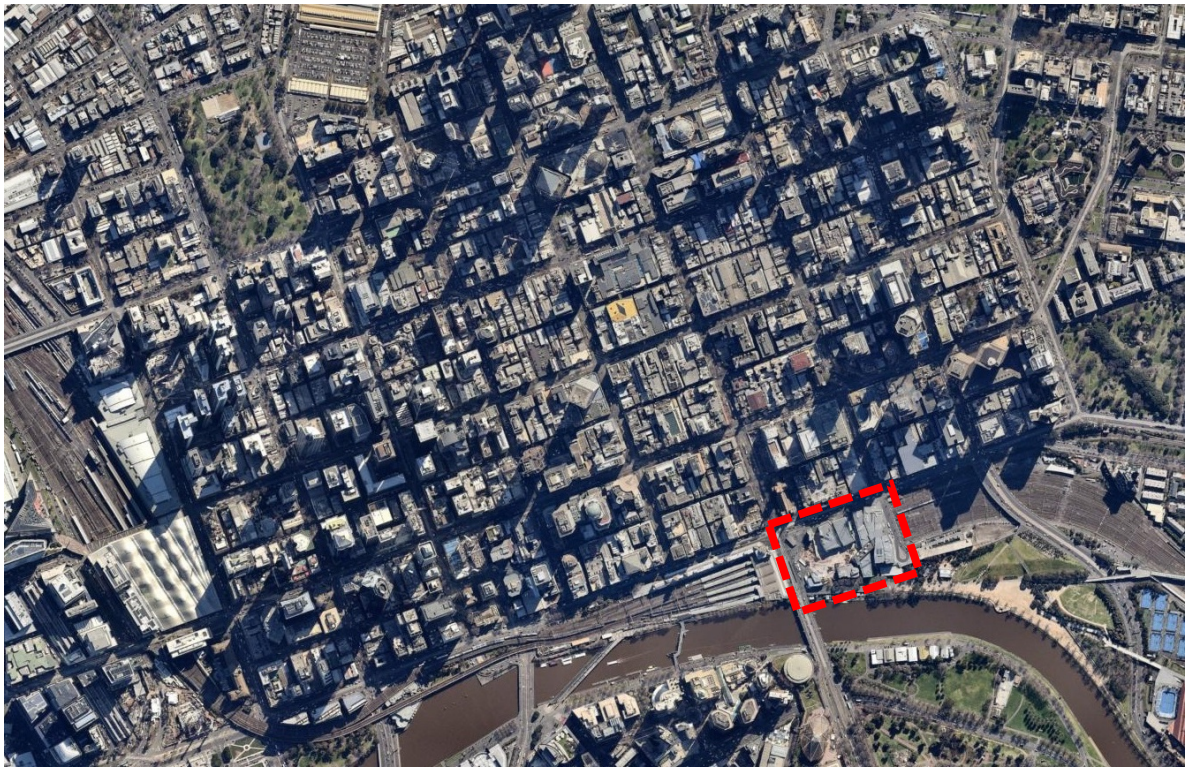


Figure 4.1: View of Melbourne CBD with Federation Square highlighted. Source: Nearmap, 2019.



Figure 4.2: Aerial view of Federation Square (outlined). Source: Nearmap, 2019.

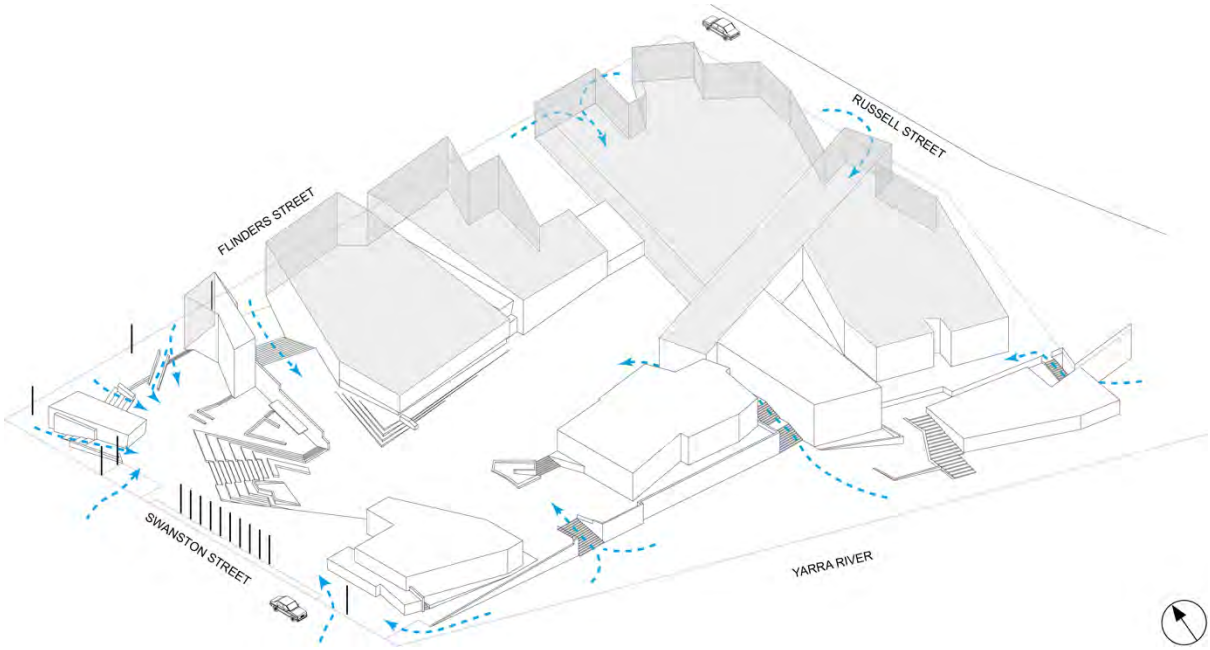


Figure 4.3: Diagram of the study area at Federation Square. The blue arrows indicate access into the site

Federation Square opened in October 2002; construction delays meant that the planned opening in 2001 (to celebrate the centenary of Federation) was not possible. During the 1990s Victoria's state government undertook a variety of large-scale projects intended to revitalise the city; Federation Square formed part of this development boom. Victorian Premier Jeff Kennett officially announced plans for Federation Square on March 13, 1996, the Square being part of a larger redevelopment of the rail yards that included extensive parkland along the river.[218] The Federation Square project was initially mooted in November 1994 with the Victorian Government's strategy document *Creating Prosperity – Victoria's Capital City Polic*y.[219] Federation Square was constructed on a deck above the train lines leading to Flinders Street Station. Prior to its construction the site was occupied by the Princes Bridge Station (now decommissioned with the lines subsumed into Flinders Street Station), Princes Bridge plaza, and the Princes Gate towers, built 1967 and demolished 1997, housing the Gas and Fuel Corporation (the state owned energy provider).[220] The Gas and Fuel buildings faced to Flinders Street were criticised for creating a barrier between the city and the Yarra River. However, they form the first stage of roofing over the railway yards and creating useable space. The Square was partly intended to reconnect the city with the river. Flinders Street itself was downtrodden and ripe for public and commercial development that would improve the southern entrance to the city. [221] The

[218] Karina Barrymore, "Towers to Fall in Melbourne's $100m Facelift," *The Australian Financial Review*, 14 March 1996.
[219] Melbourne City Council and Office of Major Projects, "Federation Square: Stage 1 Briefing Documents," (Melbourne1996).
[220] Karina Barrymore, "Melbourne's 'Ugliest' Building Comes Down," *The Australian Financial Review*, 3 October 1996.
[221] John Hurley, "Big Plans Set to Lift Flinders Street," *The Age*, 29 June 1994.

site next to the Yarra had been the focus of much debate and proposals through much of the twentieth century, a constant focus for redevelopment ideas.[222]

An international architectural design competition for the final design was won by London-based firm Lab Architectural Studio, headed by Peter Davidson and Donald Bates, in partnership with local firm Bates Smart.[223] The original competition briefing documents outline several key aims and objectives for the project that were to guide its design. The project was intended to be a social space, looking forward to the twenty-first Century, to fill a gap in Melbourne's civic infrastructure, celebrate Victoria's role in Federation, create an architectural icon, physically link the city to the Yarra River and extend parkland, and to be financially sustainable.[224] The competition brief outlines the security strategy for the site. The brief holds tenants responsible for leased spaces during business hours while public spaces and out of hours security being the responsibility of the operator in the form of manned controls and video surveillance monitored via a security control room.[225] The documents indicate a few spaces which should not be accessible to the public after hours. The discussion of security arrangements was not extensive and does not provide design guidelines for incorporating physical security features in the space. In contrast, the brief does provide design outcome guidelines for other aspects of the project such as preferred building heights, view lines, programme, the incorporation of heritage buildings on site, and the possible adaptation of road and rail connections surrounding and intersecting the site. Generally, the brief called for an open and accessible space that draws in pedestrian traffic, uses active frontages to enliven open areas, and physically and visually connects to the rest of the city. The briefing documents indicate that in 1996 the main threat to the space was unauthorised, or unmonitored, public access to certain spaces or at certain times. There is no discussion in these early documents of thresholds, vehicle access (although the space is clearly intended to be pedestrianized), material choice, stand-off distances or other strategies that this project investigates. During the construction period, the 9/11 terror attacks occurred, leading to some design changes at the site. These were largely in the form of some increased perimeter controls such as concrete planter boxes and bollards, particularly along the Flinders Street boundary.

Through 2017 and 2018 proposed alterations to Federation Square brought the community's views about the site and its role in Melbourne into sharp focus. In mid-2017, along with several CBD sites, the Square's perimeter was fortified with temporary concrete blocks / bollards in response to a hostile vehicle attack that occurred nearby (this is discussed in more detail at Chapter 4).[226] In early 2018 it

[222] Alen Rados, "Many Ideas for City Eyesore," *Herald Sun*, 28 July 1997.
[223] Royce Millar, "Uk Team Wins City Competition," *The Australian Financial Review*, 28 July 1997.
[224] Council and Projects, "Federation Square: Stage 1 Briefing Documents."
[225] Ibid. 56-57
[226] Andrews, "New Concrete Safety Barriers to Protect Our City."

was proposed to demolish the existing visitor centre building at the north-east of the site and replace it with an entrance to a new underground train station; works commenced in mid-2018 and form part of a large rail infrastructure project for Melbourne.[227] This major alteration to the site has not attracted a great deal of public controversy; possibly because the new train station is considered a necessary public good, but also because the visitor centre building was always a compromise design as the building originally proposed for that corner was cut down in height to protect views to the adjacent cathedral. However, there has been significant public debate and backlash surrounding a decision, announced in late-2017, to demolish another of the site's original buildings (the Yarra Building at the south of the site) and replace it with an Apple flagship store. One of the major concerns of those opposed to this idea is that public space is being sacrificed for private, corporate gain and that public infrastructure should not be for sale.[228] However, Federation Square has always been a privately managed, for-profit space that included commercial interests. The proposed store would therefore fit within an existing paradigm of commerce at the site. The proposed Apple Store prompted the National Trust of Australia's Victorian branch (the National Trust is a non-statutory body) to nominate Federation Square for listing on the Victorian Heritage Register (VHR), which would provide statutory protection for the site's built fabric and require a heritage permit to be granted before any changes could be made to the site. Heritage Victoria (responsible for the VHR) decided in favour of the National Trust's nomination and granted temporary protections over the site. The final decision to list Federation Square on the VHR was made by the independent Heritage Council, who determined to register the place permanently in September 2019. The nomination of such a young site to the VHR is unprecedented but demonstrates the site's importance to the state and will provide it with legally defined significance.

4.2.1 Legislation

The relevant legislation acts on Federation Square in three descending jurisdictional levels: the Commonwealth of Australia, the Victorian Government and the City of Melbourne. There is some overlap between these jurisdictions but generally they have specific responsibilities. The Commonwealth government is concerned with external threats to Australia such as foreign military forces or non-state actors threatening Australian borders or citizens overseas. Domestic counterterrorism operations occur at the state level; however, there is no agency whose sole responsibility is CT.[229] Jacinta Carroll succinctly explains the nature of the current CT situation in

[227] Rail Projects Victoria, "Metro Tunnel: Town Hall Station," https://metrotunnel.vic.gov.au/stations/town-hall.
[228] Melinda Ogden and Loretta Florance, "Federation Square Apple Store Backlash Based on 'Misunderstanding', Site Designer Says," ABC, http://www.abc.net.au/news/2017-12-21/federation-square-apple-store-reaction/9279910.
[229] Carroll, "The Counterterrorism Yearbook 2017: Australia".

Australia. “Because Australia hasn’t experienced a mass-casualty attack at home, assessing the effectiveness of its CT arrangements is challenging. That agencies have disrupted 13 plots in less than two and a half years speaks to effective intelligence collection, analysis, people capabilities and investigative techniques. The existence of so many serious plots demonstrates that the threat is real.”[230] It is worth examining each level of government’s role in protecting Federation Square.

Commonwealth Government

At the Commonwealth level, Federation Square is controlled by legislation and several different authorities. Before September 11, Australia did not have specific anti-terrorism legislation, it was covered under criminal legislation. However, in the years since September 11, 82 anti-terror laws have been enacted in Australia, with more still in progress. [231] “This is a staggering number of laws, and far exceeds the volume in the United Kingdom, Canada and even the United States in response to Sept 11.”[232] Considering the relative threat of terrorism in Australia, compared with the UK and US, it is unclear why such a large volume of new laws is considered necessary. It could be explained by the fact that Australia started with no specific anti-terror laws and is now ‘catching up’. Similarly, the structure of Australia’s security, intelligence and counterterrorism agencies has recently been revised and consolidated reflecting overseas examples. In December 2017, the Federal Government, under Prime Minister Malcolm Turnbull, created the Department of Home Affairs led by minister Peter Dutton in an extensive and significant reform of national security and intelligence. This department subsumed various portfolios and responsibilities previously managed within individual departments, unifying them in an umbrella ministry similar to the UK’s Home Office or the US State Department. The Department of Home Affairs has responsibility for: federal law enforcement, national security, criminal justice, emergency management, multicultural affairs, immigration and border protection; and includes agencies such as the Australian Federal Police, ASIO, Australian Criminal Intelligence Commission and Australian Border Force.[233] The creation of the new super-department was not without controversy as it centralised a huge amount of power under one minister and was not a move recommended by any official review, analysts or most cabinet ministers.[234] The Attorney-General’s Department is no longer responsible for ASIO but retains responsibility for policy, laws and legal frameworks around counterterrorism and the national intelligence community.

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[230] Ibid.

[231] McGarrity and Blackbourn, "Australia Has Enacted 82 Anti-Terror Laws Sonce 2001. But Tough Laws Alone Can't Eliminate Terrorism.."

[232] Ibid.

[233] Commonwealth of Australia, "Australian Government: Department of Home Affairs," https://www.homeaffairs.gov.au/.

[234] James Button, "Dutton's Dark Victory," *The Monthly* (2018). And: Louise Yaxley, "Malcolm Turnbull Announces Home Affairs Super-Ministry Run by Peter Dutton," *ABC News* 2017. And: Jonathan Pearlman, "Australia's New Home Affairs Ministry Caught in Controversy," *The Straights Times* 2017.

The Attorney-General's department also maintains the *Australian National Security* (ANS) website which outlines the country's security strategy and provides the public with easily accessible national security information. The website includes publications from the *Australia New-Zealand Counter-Terrorism Committee* (ANZCTC), the most relevant of which are those referring to 'Crowded Places'. The ANS website provides information and guidance supplementary to *Australia's Strategy for Protecting Crowded Places*, for owners and operators to assess how attractive the site is to terrorists and what actions may be taken to prevent or prepare for attacks. These include a *Crowded Places Self-Assessment Tool* and a *Crowded Places Security Audit* which allow operators to 'score' their site's existing protective security and provide a broad list of issues to help determine if they should improve security at their site. The *Audit* document divides security issues into the following categories:

- Security Governance
    - Plans, Policies and Procedures
- Physical Security
    - General
    - Access Control
    - Perimeter Security
    - Hostile Vehicle Mitigation
    - CCTV
    - Improvised Explosive Devices Blast Mitigation
    - Hostile Reconnaissance Detection (Detecting Suspicious Behaviour)
- Information Security
- Personnel Security

ANZCTC's various Guidelines for Crowded Places are intended for private owners and operators of PMGs but are also relevant to public places such as Federation Square. The guidelines suggest operational and management strategies relevant to Federation Square's stakeholders, but not to public users of the space. The guidelines do not tell members of the public what they can do to protect themselves and others in situations that could involve armed shooters, chemical weapons or hostile vehicles; instead, they advise responders how to manage people in the space – both perpetrators and public victims.

The destruction of the Twin Towers on September 11, 2001 had ramifications for Australia's existing anti-terrorism legislation and framework. Since that time, more than 50 CT Acts related to CT and

security have been passed by Australia's parliament.[235] At the time of the September 11 attacks Australia did not have any Federal laws that criminalised terrorism or provided agencies with power to counter terrorism. Understandably, the Government began to enact a framework of national security legislation in light of a perceived new threat environment.[236] Australia's counterterrorism laws are contained in the *Criminal Code Act 1995,* covering offences related to terrorist acts, organisations, financing and recruiting. The first major piece of legislation was the *Security Legislation Amendment (Terrorism) Act 2002 (Cth).* In 2005, in response to the London transport bombings, the Commonwealth Government passed the *Anti-Terrorism Act (No 2) 2005 (Cth).* Fears that Australians would travel overseas, become radicalised and fight with terrorist organisations before bringing their radical ideas and expertise home, prompted the *Counter-Terrorism Legislation Amendment (Foreign Fighters) Act 2014 (Cth).*[237] A recent update to this legislative framework is the *Counter-Terrorism Legislation Amendment Bill (No. 1) 2016 (Cth)* which largely amends police control order powers. Many early legislative changes were in the form of amendments to existing provisions. In order to legislate against terrorism Australia needed a legal definition of a terrorist act. Australia's terrorism definition was modelled on the UK's and was inserted into Section 100.1 of the *Criminal Code Act 1995 (Cth)* in 2002[238]. The definition is given in clearer, plain language via the Attorney-General's Department website, which states that a terrorist act must meet both the following criteria:[239]

- It intends to coerce or influence the public or any government by intimidation to advance a political, religious or ideological cause
- It causes one or more of the following:
    - Death, serious harm or danger to a person
    - Serious damage to property
    - A serious risk to the health and safety of the public
    - A serious interference with, disruption to, or destruction of critical infrastructure such as a telecommunications or electricity network

The act clarifies that the action must cause harm, damage, death or endangerment but must not be advocacy, protest or unintentional harm. It is important to note that the definition focuses on the

[235] Sarah Moulds, "Committees of Influence: Parliamentary Committees with the Capacity to Change Australia's Counter-Terrorism Laws," *Australasian Parliamentary Review* 31, no. 2 (2016).
[236] Andrew Lynch, Nicola McGarrity, and George Williams, *Inside Australia's Anti-Terrorism Laws and Trials* (Sydney: NewSouth Publishing, 2015).
[237] Ibid.
[238] Commonwealth of Australia, "Criminal Code Act 1995," (1995).
[239] Australian Government Attorney-General's Department, "Australia's Counter-Terrorism Laws," https://www.ag.gov.au/NationalSecurity/Counterterrorismlaw/Pages/AustraliasCounterTerrorismLaws.aspx.

intention of an act of violence; it is this aspect that separates terrorist violence from other forms of violence in Australian law.

This complex legislative framework defines the crime of terrorism and sets out powers to counter it and deal with perpetrators. Commonwealth legislation does not specify how security and CT should be implemented at specific sites. It is, therefore, of limited relevance to the spatial logic and arrangement of security measures at Federation Square. It does, however, provide the overarching conceptual intent of security across Australia and at the case study site. It also provides an overarching responsibility framework that coordinates collaboration across agencies and other levels of government.

State Government

At the state level, the Victorian Government's Attorney-General Department and Victoria Police are responsible for security. State legislation tends towards protection and risk management. The *Terrorism (Community Protection) Act 2003* (amended 2015) outlines powers of search, preventative detention, reporting, and police 'special powers.' The 2015 amendment added extra powers of remote entry to premises and preventative detention powers. Amendments were recommended in the September 2014 Victorian Review of Counter Terrorism Legislation by the Hon David Jones AM.[240] The *Emergency Management Manual Victoria* and the *Emergency Management Act 2013* define the state emergency response structure, responsibilities and policies. The state's focus is on prevention and managing risk. Powers to prosecute perpetrators is mandated by federal level legislation; therefore, it is sensible that the state would put its efforts in another direction. State level powers would be most relevant to Federation Square in the event of a terror attack or the probable threat of one.

In 2018 the Victorian State Government reformed existing legislation to implement recommendations made by the Expert Panel on Terrorism and Violent Extremism Prevention and Response Powers. The Panel was led by Ken Lay, former Chief Commissioner of Victoria Police, and the Honourable David Harper, former Court of Appeal Justice, and made a total of 42 recommendations.[241] The *Justice Legislation Amendment (Terrorism) Bill 2018* is the first phase of implementation of the Expert Panel's recommendations, with a second phase underway. The new laws allow for increased police powers, including the ability to detail terror suspects for up to four days without a warrant or a court order (children over 14 may be detained for up to 36 hours). The laws are significant because previously preventative detention could only occur if a terrorist act was imminent; it is now possible if "a terrorist

[240] Martin Pakula, "New Counter Terrorism Laws Introduced," http://www.premier.vic.gov.au/new-counter-terrorism-laws-introduced/.
[241] "Tougher Counter-Terrorism Laws Now in Effect," news release, October 1, 2018.

act is capable of being carried out and could occur within 14 days."[242] The changes mean that police can detain suspects for extended periods; conduct searches of people, vehicles and premises; cordon off areas; and request identification, in parallel with the creation of a "presumption against bail and parole for those who pose a terrorism risk"[243]. These changes are significant as they increase preventative powers that can be enacted pre-emptively and without court oversight while loosening the threat threshold from 'imminent' to 'capable.' While these recent legislative changes respond to the Expert Panel's recommendations, they also came in the lead up to a state election. The government invested in law and order reforms and funding police as an election issue, which raises questions about the timing and motivation of the reforms.

Victoria Police counterterrorism operations are guided by the *Victoria Police: Counter Terrorism Strategy 2018-2021*,[244] which supercedes the previous strategy document *Victoria Police Counter Terrorism Framework: Protecting Victoria from Terrorism – Everyone's Responsibility* of November 2013.[245] The strategy sets out the Police's vision and purpose, the threat, response, organisational setting, and six key activities ranging from prevention to response. The Strategy was revisited in 2018 in response to the evolving terror threat environment and police structural changes that created the Counter Terrorism Command in 2015. [246] The Strategy is designed to align with Victoria's *Counter-Terrorism Statement 2017* and Commonwealth counterterrorism strategies.[247] Police counter terrorism response is based on four focus areas: Prevention, Protection, Disruption and Response, explained as follows:

- Prevention: stop individuals from becoming terrorists or supporting violent extremism
- Protection: reduce the vulnerability of Victoria to acts of terrorism and violent extremism
- Disruption: identify and disrupt specific threats of terrorism and other forms of violent extremism
- Response: manage the short and long-term consequences of an act of terrorism or violent extremism

Victoria Police and its Counter Terrorism Command's Security Intelligence Unit work with the Victorian Joint Counter Terrorism Team (JCTT) and the Joint Intelligence Group (JIG). The four focus areas are supported by several 'key activities' that form the basis of the Police counterterrorism efforts. Activity

[242] Ibid.
[243] Ibid.
[244] Victoria Police, "Victoria Police: Counter Terrorism Strategy 2018-2021," (Melbourne: Victoria Police, 2018).
[245] "Victoria Police Counter Terrorism Framework: Protecting Victoria from Terrorism - Everyone's Responsibility," (2013).
[246] ABC News, "Victoria Police Establishes New Counter-Terrorism Squad with Focus on Preventing Radicalisation," in *ABC News* (2015).
[247] Police, "Victoria Police: Counter Terrorism Strategy 2018-2021." P6.

2 is *Enhance the resilience of crowded places and infrastructure* and is the most relevant activity for security and control at Federation Square. The Strategy document defines Police activity: "Given the strong interest among terrorist groups and sympathisers in attacking these locations, combined with the high impact of such attacks on society, it is critical that Victoria Police, in partnership with private industry and other areas of government, build resilience against the likelihood and consequences of these incidents."[248] Critically, the strategy outlines the current and *future* actions that the Police will engage in in order to *enhance the resilience of crowded places infrastructure*, meaning that response actions are already planned prior to the unfolding of threat events. Victoria Police notes that as terror crimes are likely to cross jurisdictional boundaries it is necessary that Australia maintains a "national, cooperative approach to counterterrorism."[249]

Police discretionary powers related to 'community protection' (an undefined term) have increased in recent years and include the ability to issue on-the-spot fines for actual or *potential* criminal behaviour. Clare Farmer argues that recent toughening of state legislation and police powers is a response to government's perception of the public's fear around security and community safety.[250] Growth of powers to ban and punish on-the-spot tend to subordinate the rights of the individual accused to the need to protect potential victims in a process of pre-victimisation of the public that is made possible by preemptive security and control in public space.[251]

Local government

The City of Melbourne council is the local government authority (it only covers central Melbourne and the business district) responsible for the safety and management of Federation Square. The *Melbourne CBD Safety Plan v4* of June 2015 sets out procedures to prepare for and respond to disasters including terror attacks. The *Melbourne Event Planning Guide* of July 2016 specifically states that event organisers planning to involve large numbers of the public need to "address security and counter-terrorism issues with … Planning and Logistics Officer" who liaises with Victoria Police and relevant authorities.[252] These guidelines are relevant to operations, event planning and management at Federation Square.

As well as guiding and regulating activities in public spaces such as Federation Square, council actively works to secure and monitor public spaces in the municipality. Council operates 63 closed circuit TV

[248] Ibid. p10.
[249] "State Security and Terrorism".
[250] Clare Farmer, "Victoria's Banning Notice Provisions: Parliamentary, Procedural and Individual Vulnerabilities," *Journal of Criminological Research, Policy and Practice* 2, no. 3 (2016).
[251] "Upholding Whose Right? Discretionary Police Powers to Punish, Collective 'Pre-Victimisation' and the Dilution of Individual Rights," *Australian & New Zealand Journal of Criminology* (2016).
[252] City of Melbourne, "Melbourne Event Planning Guide," (2016).

surveillance cameras throughout the city – up from 23 in 2008.[253] Monitored areas in public places are indicated by pavement plaques. Camera data is monitored 24 hours a day by sub-contractors; the footage is only made available to authorised police and civilians, and destroyed after 28 days if no request to view has been made.[254] Council currently employs SecureCorp (Victoria) Pty Ltd to carry out 'integrated security services', such as monitoring CCTV footage. The SecureCorp contract expires May 2021 and is worth $2-5 million. Another external contract is to SERCO, responsible for 'open spaces management', also worth $2-5 million and expiring in March 2021.[255] Security, and cleaning, staff at Federation Square are employed by SecureCorp It is not clear if these staff members are employed under the City of Melbourne's contract or separately by Federation Square Management.

Site-specific authorities and management

Federation Square is managed by Fed Square Management Pty Ltd (FSM), a company owned by State Trustees Limited on behalf of the Victorian State Government. It is therefore a publicly owned, privately managed public space.[256] Federation Square's operations and management are guided by a constitution and a Civic and Cultural Charter, devised by the Victorian Government and Melbourne City Council. The Charter guides the use of the space for accessible, cultural and civic programming.[257] The Charter briefly mentions that appropriate security should be provided but does not detail how this is to be achieved, only stating that management will work with public bodies to ensure security.[258] FSM's control of the site includes events and activities, which require prior approval and must be booked six months in advance.[259] FSM has been accused of censoring protests and banning politically sensitive imagery from being visible in the site.[260] Censorship of potentially controversial material or events from public space is made possible by the private management structure.

4.2.2 Threat Environment

Melbourne has experienced several small-scale security and terror events, but it has never experienced a major (multiple casualties) attack. Recent high-profile security threats have put a

[253] Colleen Lazenby, "Community Services Committee Report," in *Considerations for the possible extension of the safe city cameras program*, ed. Manager Community Safety and Wellbeing (2008).
[254] City of Melbourne, "Safe City Cameras," City of Melbourne, http://www.melbourne.vic.gov.au/community/safety-emergency/Pages/safe-city-cameras.aspx.
[255] "Register of Major Service Contracts,"
http://www.melbourne.vic.gov.au/business/opportunities/tenders/pages/register-major-service-contracts.aspx.
[256] Seamus O'Hanlon, *Federation Square Melbourne: The First Ten Years* (Clayton, Melbourne: Monash University Publishing, 2012).
[257] Federation-Square-Pty-Ltd, "Fed Square".
[258] Ibid.
[259] Ibid.
[260] Michael Slezak, "Anti-Adani Protest Censored by Operators of Melbourne's Federation Square," *The Guardian*, 20 September 2017.

spotlight on security measures at public spaces such as Federation Square. Local, national and international events have recently cast members of the public's attention towards the threat of mass casualty terror events. In late 2014, a lone-actor attacked police in Melbourne's outer suburbs killing one police officer.[261] This attack by a lone, self-radicalised teenager, Numan Haider, signalled a change in the threat environment from groups to individual attackers. On December 23, 2016, it was reported by news media that seven people had been arrested in Melbourne for a foiled terror attack planned for Christmas Day.[262] The attack purportedly targeted Flinders St Station, Federation Square and the nearby St Paul's Cathedral and was to involve explosives and other weapons.[263] Most of the accused were Australian-born and authorities believe they were self-radicalised and inspired by ISIS. [264] The plot was foiled by raids conducted across several outer Melbourne suburbs in a joint operation between Victoria Police, the Australian Federal Police and ASIO (Australian Security Intelligence Organisation).[265] This thwarted plot represents one of the largest in the country's history and justifies Federation Square's relevance as a case study site.[266] This is evidence that the complex, layered system of responsibility is effective. The intersection of Flinders and Swanston streets being featured in a November 2016 ISIS propaganda film demonstrates that the area constitutes a high-risk location.[267] Melbourne is locally considered Australia's 'second' city – Sydney has a larger population, a bigger economy and is more well-known internationally. Canberra is Australia's capital city and is more politically symbolic. Both these cities would seem a more valuable target for terrorist activity than Melbourne.

Victoria Police's Counter Terrorism Strategy states that "terrorism inspired by Salafi-jihadi ideology remains the primary threat"[268] and propaganda from ISIS and similar groups can encourage low-capability lone-actor attacks. These attacks aim to maximise casualties and propaganda value by targeting paces of mass gathering or symbolic individual targets such as police officers. There were two security threat events in 2017. In January, James Gargasoulas deliberately drove a car through pedestrian footpaths along Bourke Street (two blocks north of Federation Square) killing six people and injuring several others.[269] In June of 2017, a 29-year-old man murdered a hotel worker and took

[261] "Numan Haider Inquest Finds Police Had No Choice but to Shoot Radicalised Teenager," ed. Australian Associated Press (The Guardian, 2017).
[262] Livingstone, "Vic:Melbourne Xmas Bomb Attack Foiled: Police." And, Helen Velissaris, "Vic:City Shocked by Alleged Vic Terror Plot," ibid.
[263] Cowie, "What We Know."
[264] Livingstone, "Vic:Melbourne Xmas Bomb Attack Foiled: Police."
[265] Cowie, "What We Know."
[266] Carroll, "The Counterterrorism Yearbook 2017: Australia".
[267] Silvester et al., "How Police Moved on a Threat to the City's Heart."
[268] Police, "Victoria Police: Counter Terrorism Strategy 2018-2021." P3.
[269] Emily Woods and Ebony Bowden, "Bourke Street Attack: Sixth Murder Charge for Dimitrious 'Jimmy' Gargasoulas," *The Age* 2017.

a member of the public hostage in Melbourne's affluent beachside suburb of Brighton.[270] Two terror-related security threat events have occurred in Melbourne in 2018. On 9 November, Hassan Khalif Shire Ali set his car on fire near the corner of Bourke and Swanston streets (slightly east of the 2017 Bourke Street attack and two blocks north of Federation Square) before stabbing three passers-by who came to assist. One member of the public was killed and the attacker died later in hospital from police gunshot wounds.[271] A little over a week later, three men were arrested in Melbourne's northern suburbs over a mass-casualty terror plot, inspired by ISIS.[272] It was alleged by police that the attack was planned for an unspecified crowded place, so as to achieve a maximum number of casualties.

Recent security threats elsewhere in Australia contribute to an overall threat environment that is inclusive of Melbourne. In July of 2017 a terror plot targeting Sydney airport was shown to be far more sophisticated and ambitious than any of Australia's previous jihadist threats.[273] This plot was foiled at the airport departure gate and the perpetrators were shown to have been directed by ISIS members overseas and were planning further attacks.[274] This followed another high-profile terror event on December 15 2014 when Man Haron Monis took staff and customers hostage at a café in Sydney, in what became known as the Sydney Siege.[275] Between 2014 and early 2018, there were five terror attacks in Australia – all of which were lone actor, low level events; in the same period 14 significant plots were disrupted by authorities.[276] While these threats are serious and demonstrate the very real risk of terror attack in Australia, they also demonstrate that security agencies are successfully preventing attacks, or responding to them when they do occur to prevent them escalating.[277]

4.3 Fieldwork Results

This section introduces the outcomes of the spatial observation data collection fieldwork. Site visit observations were recorded as site notes, sketch maps and photographs. The recorded observations are discussed in two ways. Firstly, as a description of the site conditions (day, night, weather etc) during the visit, and the researcher experience. This provides context to the observations and acknowledges the researcher as an active participant in the site.[278] Secondly, as a descriptive account

[270] Andrew Zammit, "Understanding Australia's Brighton Siege Terror Attack," *Terrorism Monitor* 15, no. 14 (2017).
[271] Erin Pearson, John Silvester, and Simone Fox Koob, "Lone Terrorist Responsible for Deadly Attack on Bourke Street," *The Age*, 9 November 2018.
[272] Melissa Cunningham, Robyn Grace, and Tammy Mills, "Three Arrested over Alleged Melbourne Terror Plot to 'Kill Maximum Number of People'," *Sydney Morning Herald*, 20 November 2018.
[273] Andrew Zammit, "New Developments in the Islamic State's External Operations: The 2017 Sydney Plane Plot," *CTC Sentinel* 10, no. 9 (2017).P2-3.
[274] Stuart Riley and Louise Hall, "Sydney Terror Plotters 'Tired to Blow up Etihad Plane, Unleash Poison Gas Attack'," *ABC News*, 4 August 2017.
[275] Andrew Zammit, "Australian Jihadism in the Age of the Islamic State," *CTC Sentinel* 10, no. 3 (2017).
[276] Carroll, "Counter-Terrorism in Australia." PP 13-14.
[277] Riley and Hall, "Sydney Terror Plotters 'Tired to Blow up Etihad Plane, Unleash Poison Gas Attack'."
[278] Hinkel, "Private Encounters and Public Occupations: A Methodology for the Exploration of Public Space."

of the observed security control measures and their operation during the site visit. Following the initial descriptions of site observations, each security measure is discussed in terms of its functioning on a time scale. The intention is to understand how security measures perform as response (to an event in the past), prevention (of events occurring or worsening in the present), and pre-emption (of possible future events). If the global political doctrine of pre-emption, operating at an international level, has an impact on small-scale local places it should be evident in the security measures discussed.



Figure 4.4: View of Federation Square, full of people during an event. Source: Public Records Office of Victoria, VPRS 15687/P0001.

Site visits revealed Federation Square to be highly controlled in all strategic security categories, both spatially and temporally. Federation Square is 3.2 hectares in size, forming a rectangle shape broken into several distinct sub spaces on a sloping site with buildings around most of its perimeter.

Five site visits were conducted in March and April 2017 including weekends, weekdays, daytime, evening, and during planned events in the site. Federation Square was observed to be highly controlled with limits on access and activity / behaviour within the space. Planned events in the site were controlled by FSM and private security. A police presence was observed on one occasion.

4.3.1 Site Visits

Visit 1: Wednesday 15 March. 12:30

There was a lot of activity in the Square. A short film was screening within the main open area and many people, including school groups, were in the space. The site was much quieter, in terms of activity and numbers of visitors, at the river edge to the south than in the central main open space. Notably, the access from this area to the main Square is difficult, via steep stairs either straight up or

through the car park, and the route is not obvious. There are many sign posts and directions advising visitors how to access the Square and other nearby amenities. At the south-east corner, next to Russell Street, the site was very quiet and sparsely occupied. This area is separated from the main part of the Square by the National Gallery of Victoria building, and from the river edge by a steep level change. The Flinders Street perimeter is very busy and, as at Swanston Street, there is not always a clearly defined boundary between inside and outside the space. The street flows into the Square and vice-versa. Lines of bollards and ground material changes suggest a perimeter but this is not always explicit. Three police officers were observed walking through the space at the north-west corner; two security guards were observed along the north of the site.

Visit 2: Tuesday 21 March. 15:50

The interior of the Square is very busy with many people sitting and having lunch. Once again there are school groups in the site. The stage and screen area have been set up for the 'World's Greatest Shave' charity event. There are tents, promotional staff and multimedia displays for this event. There are not, however, many members of the public engaging with this programmed activity and it doesn't appear to have brought many people into the space who would not otherwise have been here. Most people in the site are clustered around the limited shaded areas and the large steps facing Swanston Street. One security guard was observed moving through the site and stopping at certain points. Further into the Square, moving towards the centre and away from Swanston Street, the space feels much more compressed as the surrounding buildings close in and the ground slopes up. The buildings enclose the open space which contrasts with the permeable street perimeters.

Visit 3: Wednesday 22 March. 12:30

Once again, the site is occupied by several school groups, although it is not clear what they are doing in the space. There are many people moving through the space, particularly along the permeable Swanston and Flinders Street edges. Most of the pedestrian flow is concentrated to the west, which is close to transport routes and is a much more open edge. The eastern boundary, for example, is enclosed by buildings. This means the centre of the site can feel quite empty while there are many people at the edges creating an imbalance of site activation. This effect is increased from 17:00 when the after-work rush begins. The site is next to Flinders Street railway station (servicing all 15 of Melbourne's regular metropolitan train routes) and 12 tram routes in total along Swanston and Flinders Streets. As a result, many people pass through the edge of the Square to access public transport. There is a constant flow of pedestrians cutting the north-west site corner between Flinders and Swanston Streets near the Visitor Centre building. People dwelling in the space are confined to

areas which can be used for seating, such as the steps and the several concrete benches and planter boxes. The number of people dwelling in the space remains high even after traditional business hours have ended.

Visit 4: Saturday 25 March. 10:50

The entire site is occupied by 'Victoria's Multicultural Festival', a programmed event. There are rows of information tents, performances at the stage, and food stalls along the river edge. Temporary seating areas with umbrellas have been set up, encouraging people to enter the space and dwell within it. The site is very busy, the Festival event appears to have drawn a large crowd, supported by its being a warm and sunny weekend day. Furthermore, this weekend coincides with the Victorian Formula One Grand Prix which brings many tourists into Melbourne. The Grand Prix site is easily accessed via tram from nearby to the site. It is likely that tourists who are in the area for the Grand Prix are being drawn into the Square. Despite the site being generally very busy and highly activated, there are some quiet areas. These tend to be at the bases of staircases leading into the site where there is limited visual connection between inside and outside the space. Several police officers were observed in the site including a police vehicle parked at the edge of the site along Swanston Street.

Visit 5: Thursday April 6. 17:35

There is a high level of crowd management activity controlling the site during this evening site visit. An interactive event is occurring for 'Stargazing Live' by the Australian Broadcasting Corporation with astronomy footage broadcast on the big screen, live performance and discussion on the stage, and supporting programme in tents and interactive displays dispersed through the Square. This event is targeted towards young people and families and the site was busy; a large area of seating was set up in front of the screen, delineated by temporary fencing and monitored by security and FSM staff. This event features the most extensive crowd management efforts that I have observed at the site, presumably because the programme is concentrated to one area and is not spread throughout the whole site and for the expected volume of visitors. Security guards were controlling crowd flow as well as moving throughout the Square and monitoring general activity – directed by FSM staff rather than police.

Visit 6: Wednesday November 22. 16:00

This site visit was conducted specifically to observe and record temporary concrete block bollards that were installed at the site after the initial round of fieldwork. No other additional follow up site visits were carried out at any of the case study sites. While acknowledging that each place will change subsequent to the fieldwork, a point in time has to be chosen to limit the research scope. An exception

was made in this case as the concrete blocks were installed during the general time frame of the fieldwork, and they are an example of a security measure installed in response to a violent threat event. The hostile vehicle attack at nearby Bourke Street did not directly involve Federation Square, but the decision was made to increase fortification of the site (and other similar public spaces in Melbourne) as a preemptive measure against similar future events. I took advantage of the unique condition of being able to assess the impact of these bollards on the space because I had experienced the before and after spatial condition. Secondly, I was curious to see if my observations and experiences in the place would have been affected by things I may have learned during the fieldwork to Trafalgar Square and Hashemite Plaza.

4.3.2 Security Measures

Measurement Tool

The measurement table tool is used universally across the sites. The level highlighted in grey is the observed situation at the site on a low, medium, high scale.

Feature	*Level*	*Criteria*
Panoptic Devices		
CCTV	L	None present
	M	One camera
	H	**Two or more cameras**
Private security personnel	L	None present
	M	One guard
	H	**Two or more guards and/or vehicle**
Police presence	L	None present
	M	Two officers
	H	**Three or more officers and/or vehicle and/or station**
Ease of passive surveillance	L	No provision for dwelling and observing space
	M	**Part of the space is easily observable from some vantage points**
	H	The whole space is easily visible
Regulatory Procedures		
Visible rules	L	None present
	M	One visible sign / posting of local or special rules
	H	**Two or more visible signs/postings of local or special rules**
Enforced rules	**L**	**Local regulations, enforced by police**
	M	Local regulations, visibly enforced by police and private security
	H	Special regulation, visibly enforced by police and private security
	L	None present

Behaviour rules implied by design	**M**	**One or two examples**
	H	Several obvious examples throughout space
Site branding	L	Site has no naming or representational branding
	M	Site has naming or representational branding but not both
	H	**Branding through naming and representational measures**
Fortress Measures		
Physical access	L	No barriers or gates and access is visible and easy
	M	**No barriers or gates but access not highly visible and/or easy. Or, highly visible access but with gates or barriers**
	H	Barriers and gates, access not visible and/or easy
Segregation	**L**	**No areas of conditional use**
	M	One area restricted to certain people or uses
	H	Two or more (or one large) area of restricted access and use
Hours of operation	**L**	**Open 24 hours, 7 days including holidays**
	M	Partly open past business hours and/or on weekends
	H	Open only during business hours
Privatisation	L	Publicly owned, publicly managed
	M	**Publicly owned, privately managed**
	H	Privately owned, privately managed

4.3.3 Panoptic Devices

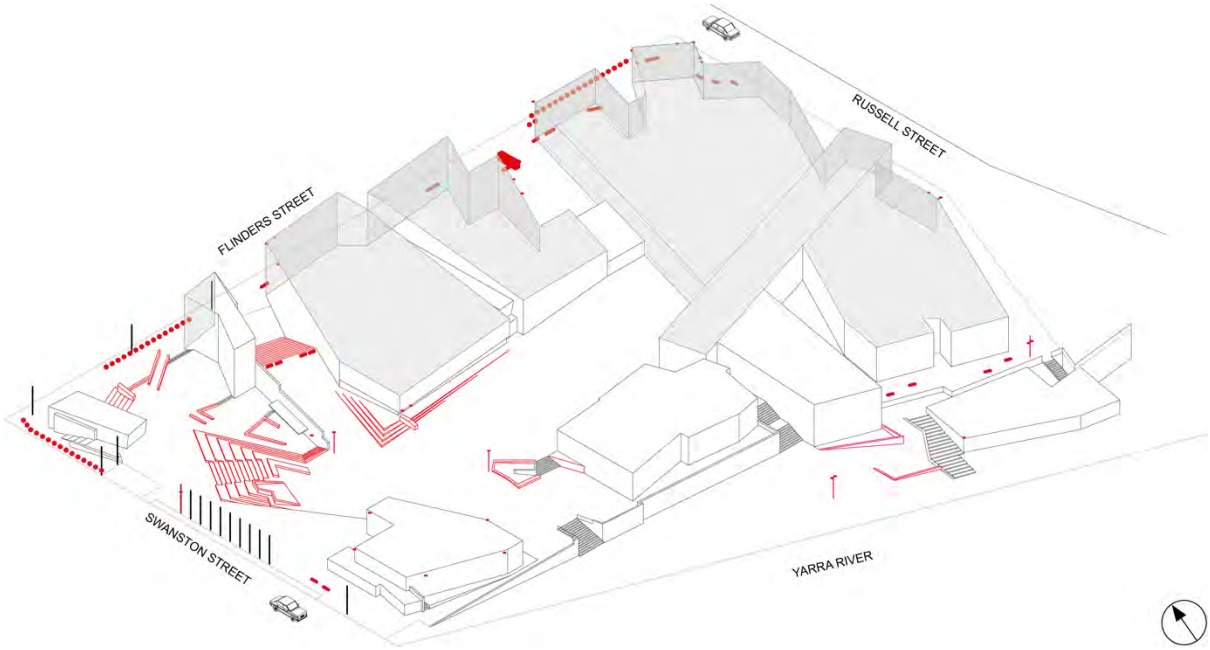


Figure 4.5: Diagram of observed locations of panoptic measures indicated in red.

Presence of CCTV

There is a high level of CCTV presence across the site. Two types of camera are in use – those that are clearly directed at a particular viewpoint or object, and those with concealed focus. Concealed CCTV cameras are an archetypal panoptic device. They could be looking at anything at any time – people must assume they are always under surveillance. Most cameras are located at the perimeters of the open space and at the built edges of the private businesses, with some cameras within the body of the space. Signs advising that CCTV is in use are located at the site boundaries facing out – the intended audience being those entering the site. CCTV does not feel like an oppressive presence but is very visible and high in number; concentrated at boundaries (of the site and the businesses) with few cameras located in the centre of the site. The focus on boundaries and businesses suggests that the security concern is protecting private business interest and being able to monitor people entering the site. Once people are within the site, if they do not interact with a business, their activities are not obviously monitored by CCTV.



Figure 4.6: CCTV cameras wihin the site (indicated in red) and a sign notifying that CCTV is in use (right).

CCTV performs a controlling function in the time before, during and after a threat event. After a threat has emerged, CCTV footage can be used as evidence to determine events and perpetrators. Footage can also be used as the event unfolds to inform response and mitigation efforts. Cameras are often installed at locations where threats have previously emerged to manage community fear and dissuade future perpetrators – this is a response that becomes a preventative action. CCTV supports the deployment of preventative measures if potentially threatening behaviour or actions are identified. At Federation Square this would manifest as police responding to, and investigating, suspicious items or individuals. CCTV monitoring enables pre-emptive responses to potential threats. Members of the public are treated as imminent victims and the suspicious behaviour as an actual danger; whether or not the threat is real is irrelevant as the preemptive response is the same. This is a form of pre-victimisation, where the place is treated as if it is at imminent risk. This works in parallel to preemptive criminalisation through police authority to respond on-the-spot to potential threats.[279]

Private Security Personnel

There is a moderate private security presence at Federation Square, provided by SecureCorp. Security personnel were observed circulating the space, usually in pairs, wearing uniforms that stated, 'security and customer service' (Figure 4.7). Security presence increased during large events, with staff providing additional crowd control by managing pedestrian flows and positioning temporary barriers.

[279] Farmer, "Upholding Whose Right? Discretionary Police Powers to Punish, Collective 'Pre-Victimisation' and the Dilution of Individual Rights."

Security staff performed crowd control under the direction of FSM and, as such, private security personnel are a tool of control wielded by FSM.

The active presence of, and surveillance by, private security at the site is an effective preventative tool. Users of the space self-regulate their behaviour according to the authority they perceive to be held by security personnel and their awareness of possible penalties. This process of internalising others' power is also pre-emptive as it brings potential outcomes of behaviour into the public's present decision-making reality.

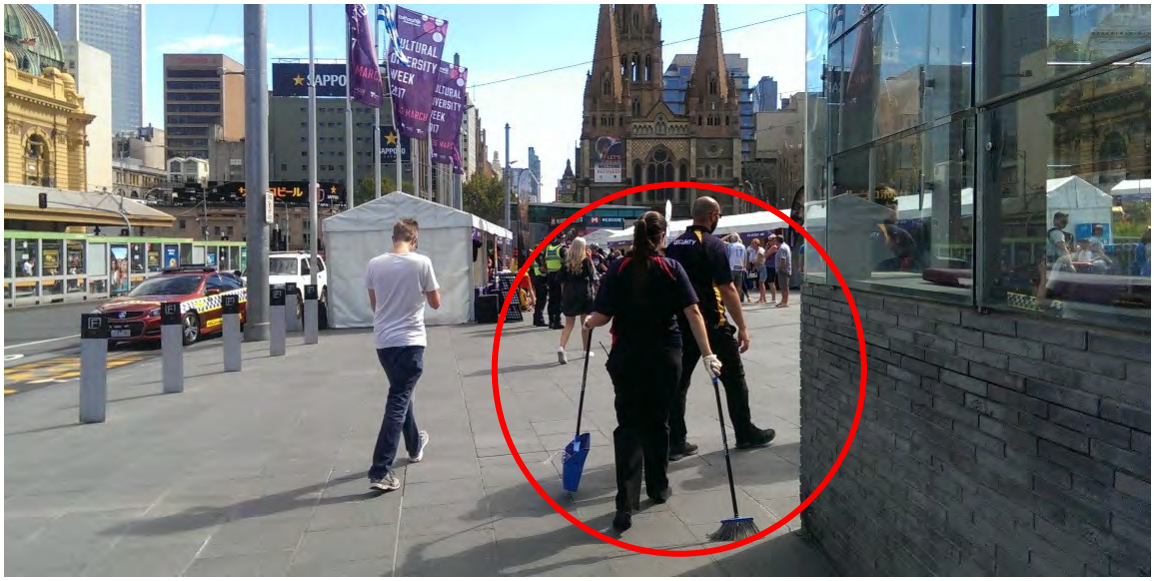


Figure 4.7: Uniformed SecureCorp cleaning and security staff within the site.

Police Presence

There was a medium-to-high police presence at the site; only two officers were observed during a weekend cultural event, but they were accompanied by parked vehicles (Figure 4.8). There is also a nearby police booth across the road at Flinders Street railway station. The police were not observed actively enforcing rules or controlling behaviour in any way. However, their presence works similarly to private security personnel as people self-censor their behaviour according to internalised knowledge of police authority. They are also there ready to respond to threats should they emerge. Police, therefore, have the same pre-emptive and preventative capacities as private security but with broader and more clearly defined authority, as well as a responsive capacity. Police are ultimately responsible for leading the response and mitigation to threats at the site.[280]

[280] Police, "Victoria Police Counter Terrorism Framework: Protecting Victoria from Terrorism - Everyone's Responsibility."

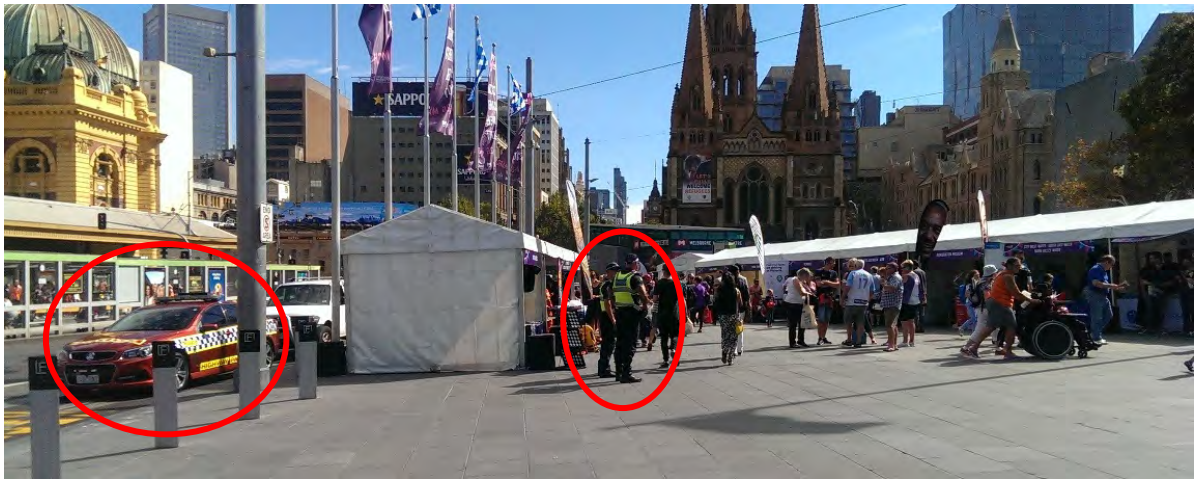


Figure 4.8: Police officers and vehicle at Federation Square

Passive Surveillance

Federation Square's spatial layout encourages inhabitants to observe each other, activities in the site, and its boundaries. The sloped site produces amphitheatre-type areas that enable an 'audience' of people to dwell and visually monitor the space (Figure 4.9). The spatial design takes advantage of this topographical feature with seating placed at several places, often combined with stairs. There is provision for passive observation across most of the site, from the edges and from deep within the site looking outwards. There is a concentration of passive surveillance at the centre of the Square in the main open space. Businesses surrounding the perimeter of the open spaces generally feature activated edges, such as outdoor seating and windows, that provides another layer of passive observers of the space. This is concentrated in the centre of the space and towards the Swanston Street boundary, which is the busiest area.



Figure 4.9: Seating areas (temporary and permanent) encourage passive surveillance by directing people's observations and encouraging them to dwell in the space.

Passive surveillance acts responsively as people are empowered to call for police or act themselves to mitigate an emergent threat. The public can then provide vital witness evidence after an event. Campaigns such as 'saysomething.org' encourage the public to alert authorities if they suspect a threat

may be emerging, thus performing a preventative control function.[281] Passive surveillance isn't an active control measure as such. It can, however, assist or support the action of other control measures. Temporally, it acts as response and prevention; pre-emptive logics mean the observers and observed cast each other as potential threats within the space, justifying the observation.

4.3.4 Regulatory Procedures

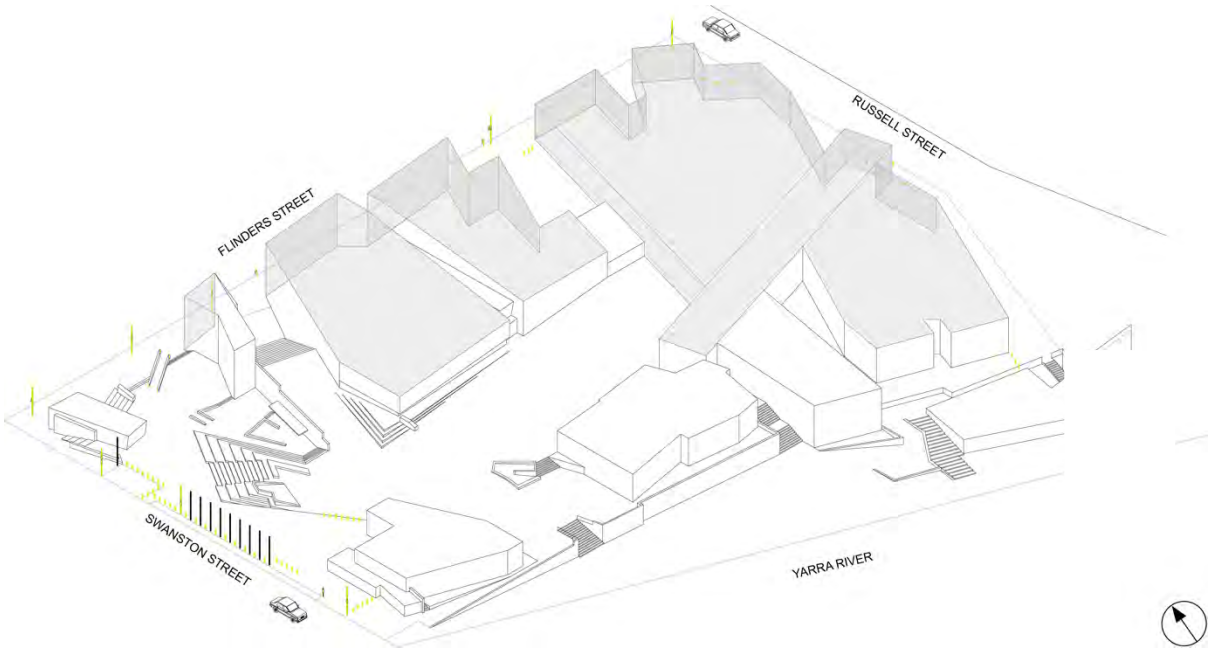


Figure 4.10: Diagram of regulatory procedures, in yellow.

Visible Rules about Behaviour

There is a high level of site-specific visible rules at Federation Square (Figure 4.11). Behaviour rule signage is focused at the site perimeter directed towards those entering the space. Within the space, behaviour signs regulate specific activities such as 'no smoking,' 'no skateboarding' and 'no cycling.' One 'no cycling' sign at an accessible ramp was evidently ineffective as a temporary rope barrier was also in use as an attempt to control the problem of cyclists on the ramp, behaviour that the design makes possible. There is one sign, positioned well above eye level and facing to Swanston Street, stating that the site is private property. The position of this sign, and the fact that there is only one, suggests it is required rather than desired by FSM.

Making spatial rules visible is not a response to a threat. The rules themselves, however, may have emerged in response to threats and behaviours previously endangering that space. So, rules and regulations are themselves responsive but their visibility within the space is not. Visibility does,

[281] Crime-Stoppers-Victoria-Ltd., "Say Something".

however, act to prevent the reoccurrence of specific behaviours. The preventative effect occurs through the threat of potential penalty applied – an example at Federation Square is a sign advising a penalty for drinking alcohol in the space. Visible rules provide guidelines for users to moderate their behaviour. In terms of pre-emption, the process of identifying potential future threats to the space and codifying them in criminal law takes an abstract, possible threat and brings it into being as a legal reality. Regulation itself, therefore, has the capacity to act pre-emptively but the visibility of those regulations in space does not.

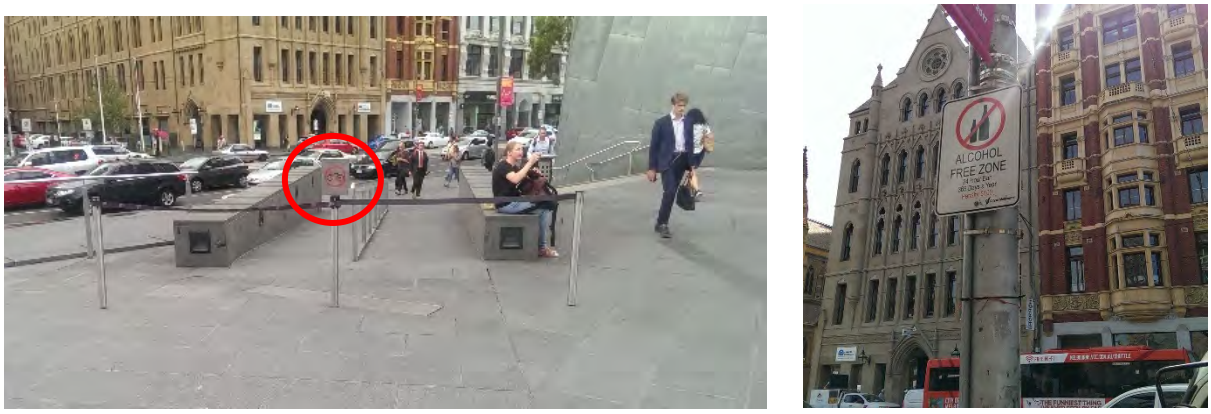


Figure 4.11: Visible rules in the space: anti cycling sign and barrier (left) and alcohol free zone (right).

Behaviour Rules Actively Enforced

No examples of active enforcement of rules were observed. In fact, multiple examples of users actively breaching visible rules was witnessed. During events in the space private security was seen guiding and managing crowd flow and behaviour, however this is not an example of active enforcement of rules as it was in response to event specific conditions. Police and security observed at the site were seen to be monitoring the space rather than actively enforcing behaviour rules or controlling activities.

Behaviour Rules Implied by Design

Spatial design created a medium amount control by implying preferred behaviours. The clearest examples, the production of passive surveillance and constriction of crowd formation, have been discussed above. Otherwise, this mechanism controls programmed events or responds to observed behaviours through spatial adaptations rather than being built into the space from the beginning. Spatial design, therefore, acts both responsively and preventatively. An observed preventative example is temporary barriers directing people's movement and restricting access during programmed events. This manoeuvre prevents crowds forming and ensures pedestrian movement flows effectively. Responsive examples include the use of skateboard preventative metal strips in

concrete barriers. The temporary rope barrier preventing cyclists riding on the accessible ramp is a failed design response to unwanted behaviour as it is routinely ignored by cyclists.

4.3.5 Fortress Measures

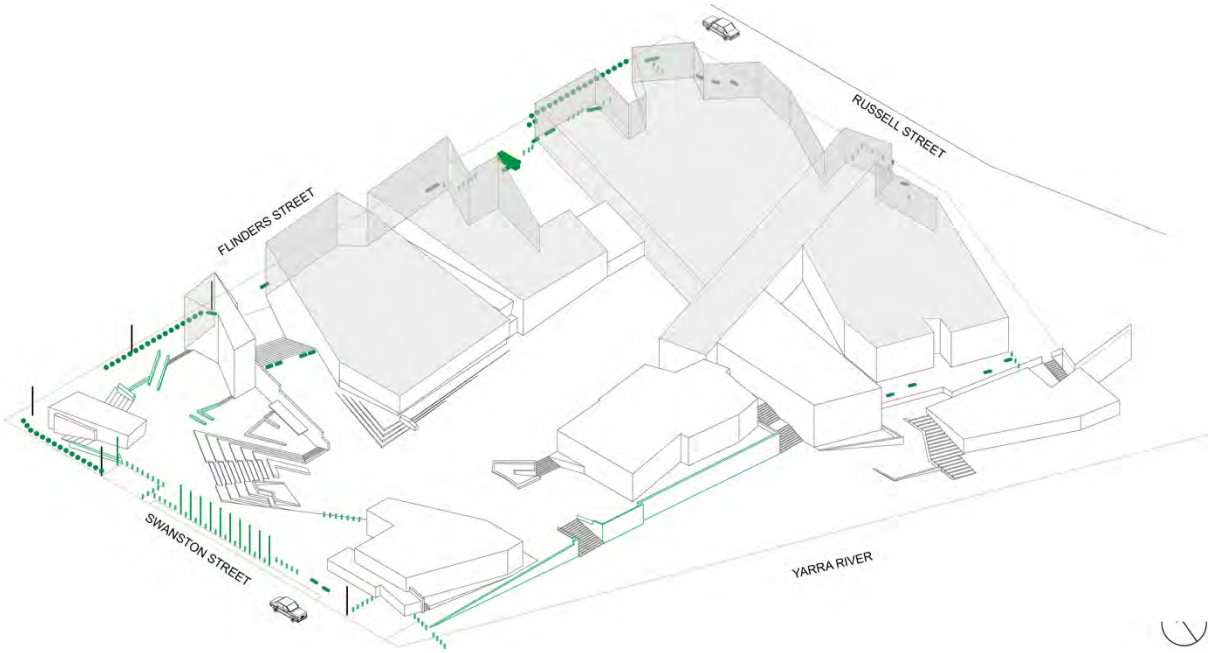
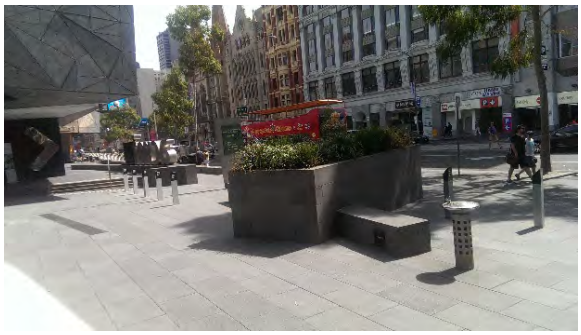


Figure 4.12: Diagram of fortress measures in green.

Physical Access

Access into Federation Square is highly, if subtly, controlled. Entrances to the site are easily visible, particularly along the main Swanston Street perimeter, but fortress measures prevent vehicle access and filter pedestrian movement. Access at Swanston Street is controlled by fences, bollards, flagpoles, concrete blocks (which also serve as seating), parked cars and steps. Different barrier types are layered in from the boundary creating a series of controls as one moves further into the space. Along Flinders Street there are fewer bollards and barriers than along Swanston Street but more stairs and perimeter buildings. Access is visible but restricted to a small area. Russell Street is almost completely closed by buildings except for a small entrance to a sub-space at the south. The south boundary along the Yarra River is fortified by a steep level change and access only stairs, preventing anything with wheels entering. The new concrete security barriers discussed above have been installed at three points along the site boundary – either side of the corner of Flinders and Swanston Streets, and further along Flinders Street opposite the Forum theatre. There are 50 in total with the possibility of more being added in future. The new barriers add another layer to the existing boundary fortifications along Swanston Street and fill some gaps along Flinders Street. As access is highly visible and doesn't hinder pedestrians (excepting those with mobility issues) it is easy to overlook the way that built form and

level changes filter access and control what goes into, and out of, the space. Some entrances to the site are through the buildings, particularly those at the east edge, meaning that access into the space is indirect and easily interrupted. Physical access controls restrict a crowd's ability to form, and grow, in the space, but it also needs to manage people leaving the space. The original design did not seek to constrain crowds within the space, although the design of entry points makes it theoretically possible to do so within the space. Ease and promptness of egress was a factor in including multiple entrance points. Ensuring crowds of people can get out of the space is a response measure as it helps people escape from danger if a threat emerges.



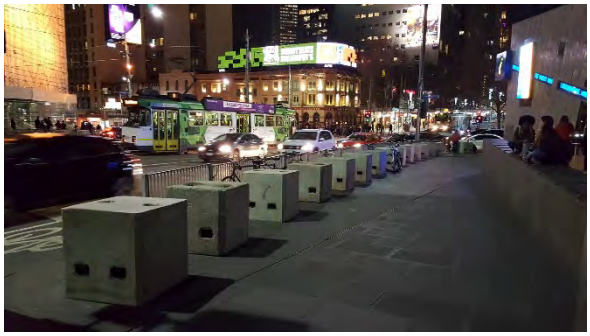


Figure 4.13: Fortress measures including bollards and concrete barriers (left), and the new temporary concrete safety barriers (right).

There is controlled parking on Swanston and Flinders Streets which works in two ways – it prevents public vehicles parking at the site while allowing emergency vehicles access should they need to respond to a threat. This dual prevention/response function is also performed by removable bollards. No emergency responses were observed during fieldwork however event-specific vehicles were seen in the site. The newly installed safety barriers, on the other hand, act pre-emptively. The State Government announced that they were installed to increase security and in response to potential terror attacks despite no such attack having occurred at Federation Square.[282] While this specific threat emerged at nearby Bourke Street, it remains an imagined possibility at Federation Square.[283] The foiled December 2016 plot involved weapons and explosives – not a vehicle. These barriers do not prevent or respond to the most credible recent direct risk to the space. As they do not respond to past events or prevent known threats to the space the barriers are acting pre-emptively. This is a pre-emptive action notable for the radical non-presence of the future threat in the present. Physical fortification is one of clearest examples of a multidimensional field of control as it is applied throughout the space and across different times.

[282] Andrews, "New Concrete Safety Barriers to Protect Our City."
[283] Woods and Bowden, "Bourke Street Attack: Sixth Murder Charge for Dimitrious 'Jimmy' Gargasoulas."

Segregation & Hours of Operation

These two techniques are closely related and, in this case, can be examined together. Federation Square is always open and no examples were observed where parts of the space were segregated to certain groups or at certain times. Events at the space segregate it into different programme areas but these remain accessible to all and are a segregation of function not users. However, the private businesses at the perimeter of the space do have moderated hours of operation and can be segregated according to time or group. These private and indoor spaces, while connected to the open space at Federation Square, are not relevant to this research. Therefore, fortification through timed and segregated access is not evident at Federation Square. It is, however, theoretically possible due to the site's private management status.

Privatisation

As discussed, Federation Square is, technically, publicly owned but privately managed (refer Figure 4.14 – the site is described as 'private property'). This creates a level of site-specific control that would not normally be possible in public spaces without private management. The Victorian State Government established FSM in 1999 giving it responsibility for overseeing construction and for managing a profitable cultural venue.[284] As the space is privately managed, persons or groups can be more easily removed or banned by FSM if their behaviour is considered threatening or otherwise against site rules.[285] It is interesting that no homeless people or beggars were observed at any time in any part of Federation Square despite Melbourne facing a homelessness crisis during the research period.[286] In this regard, Federation Square operates more like a private shopping mall than a public open space. Privatisation overlaps with, and enables, all other control techniques to perform both spatially and temporally but does not itself perform these functions.

[284] Federation-Square-Management-Pty-Ltd, "Federation Square: The Centre of Melbourne: The First 2 Years," (Melbourne2004).
[285] Slezak, "Anti-Adani Protest Censored by Operators of Melbourne's Federation Square." And, Németh and Schmidt, "The Privatization of Public Space: Modeling and Measuring Publicness."
[286] Bernadette George, "Solving Melbourne's Housing Crisis in Five Easy Steps," *Planning News* 42, no. 7 (2016).



Figure 4.14: Sign advising that Federation Square is private property

4.4 Analysis of Control Measures

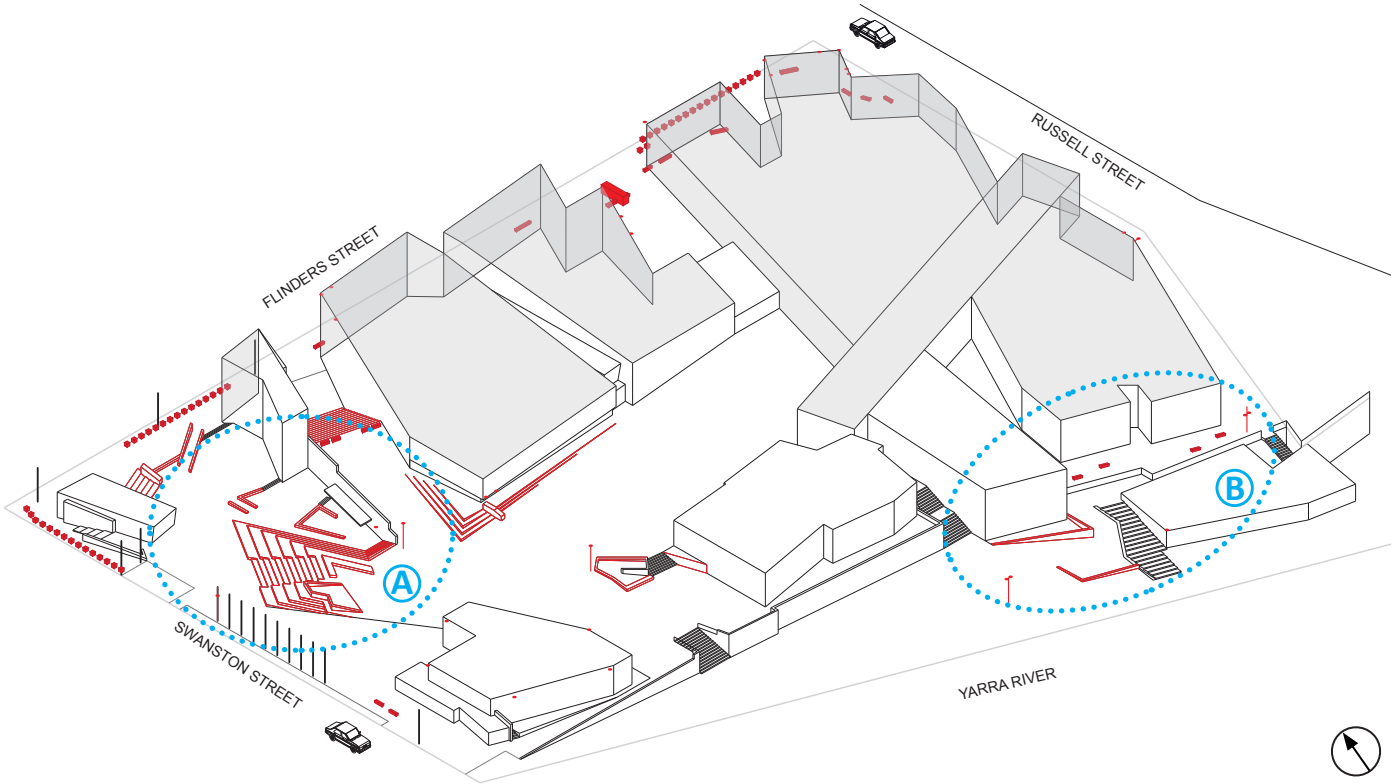
This section analyses the nature and action of controlling security measures, noting how they mediate relationships between people and power and how that is supported by the built form. The analysis method is described at Chapter 3. The site is understood as a field of control measures and this analysis interrogates the nature of each measure and how it affects the space. This is achieved through a close reading approach that reviews sub sections of the space. Diagram maps are used both as a representative tool and as a mechanism to assist in the analysis.

4.4.1 Panoptic Measures

There is active and passive surveillance throughout Federation Square, but the majority is located at the north west corner. CCTV cameras are concentrated at the perimeters of the site; cameras inside the body of the square are generally attached to the commercial tenancies. Police officers and vehicles were observed patrolling the site during a large public festival event held in the Square. There is a small police station across the street at Flinders Street railway station and officers were occasionally observed moving through the site although they were not seen to be actively monitoring behaviour and events. Private security staff were seen on very few occasions and they were mostly performing crowd management during large events. The site's topography and open boundaries ensure that surveillance (both active and passive) extends out well beyond the site's borders. Similarly, eyes can see into the space from outside. Surveillance is not discrete, it spreads and connects as a network through the surrounding area and wider city. This is an example of Kahn's understanding of sites as

enmeshed with context and infrastructure ecosystems, rather than as discrete elements.[287] This is possibly best demonstrated by 'Fed-Cam', a 24-hour livestream of part of the Square that anyone can log into and watch remotely. This is enabled by connective infrastructure and extends visibility of, and into, the site well beyond its immediate context. Federation Square is notable, compared with the other two case study sites, in the amount of CCTV used and the extensive provision for passive surveillance by users of the site. There are two areas that are particularly interesting in this regard, discussed below.

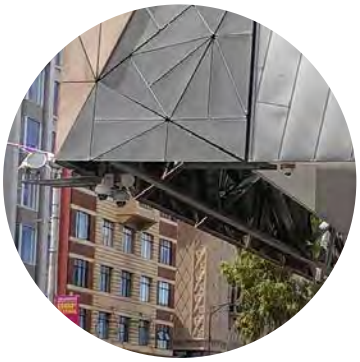
[287] Kahn, "Overlooking: A Look at How We Look at Site."



PANOPTIC DEVICES AT FEDERATION SQUARE

- Police Officers - only observed during one event at the site
- Security staff - observed occasionally, usually in pairs
- Police vehicles - observed parked at the Swanston Street boundary on one occasion
- CCTV cameras - over 20 cameras, some with concealed focus and some with a direction of focus
- Provision for passive surveillance - throughout, concentrated at 'The Square' in the north west





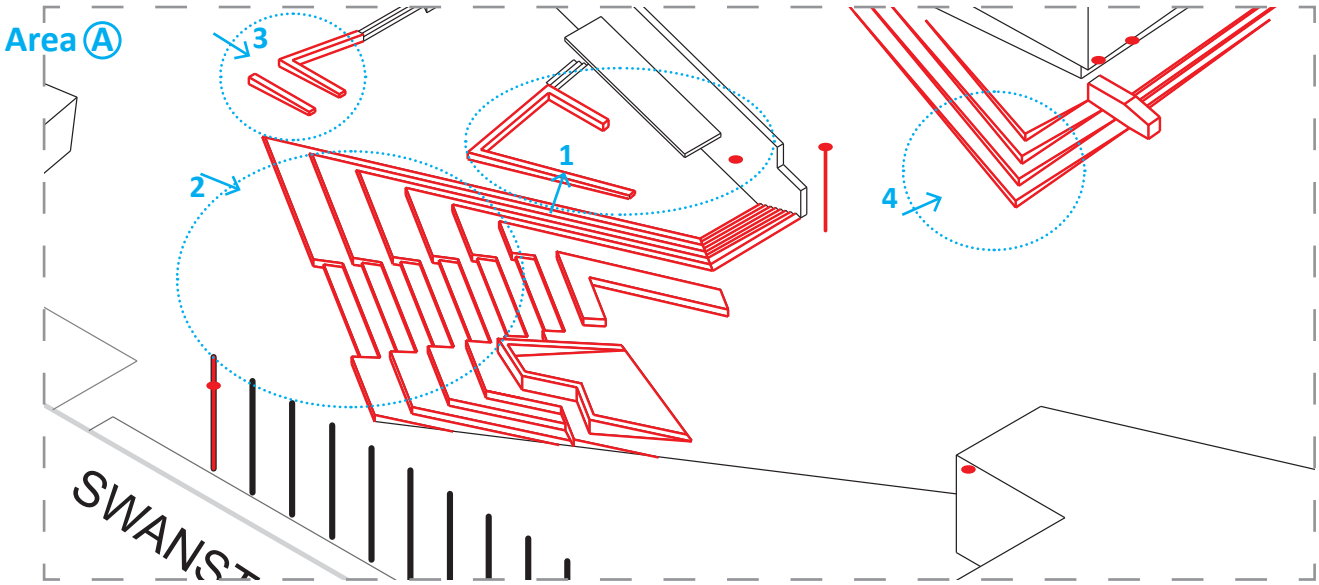
Area A

Passive surveillance at the north west corner of the site is greater than at any other part of the space. Spatial features such as the large, sweeping steps, the concrete barrier elements, and the cafe provide places for people to dwell and observe the space. This area is the most visually permeable part of the site as there are few tall buildings to block views. Passive surveillance is supported by these spatial characteristics that were part of the original design of the space and serve multiple other functions. As the topography of the site slopes upwards towards the east, the changing levels produce steps, ledges and retaining walls throughout the site that support passive surveillance. The built form here enables surveillance and is therefore complicit in this practice of power. This is not a happy accident of the built form; it is an intended consequence of the design. Passive surveillance is an insidious form of power as it drafts regular citizens to monitor each other. This is a form of 'power over' that has become so internalised that it does not appear to be a form of manipulation.

Active surveillance is also quite high in this area compared with the rest of the site. CCTV cameras are located at high level on one of the perimeter flagpoles and on a light pole at the top of the sweeping steps. There are further CCTV cameras attached to the buildings surrounding the site which monitor the perimeters of the commercial tenancies. Private security staff were observed in this area during events to be monitoring and managing crowd behaviour. Police were observed in this area infrequently. In both cases – private security and police – they were not seen to be actively enforcing rules or punishing transgressions. Simply by being present and obviously monitoring the space, police and security staff remind people that they *could* enforce rules, which encourages people to behave appropriately. Users of the space know they are under surveillance and that those watching them have power over them. The same effect is produced by CCTV cameras. They are a visual reminder of the existence of a power relationship, of the fact that control is exercised on the space and its users. This visual reminder of the power structures in place at the site is often enough get people to comply without having to exercise that power.

This area of the site is heavily and explicitly surveyed. While this means that threats can be identified as they emerge, it also encourages behaviour compliance by visually representing power and control structures present at the site. Surveillance indicates that there are rules, and it suggests that those rules may be enforced. In this way, the physical presence of surveillance controls through suggestion, it implies behaviour rules and possible use of force. People then adjust their behaviour so as to avoid being met with force.[288]

[288] Dovey, *Framing Places: Mediating Power in Built Form*. P13.



DETAIL VIEW: PANOPTIC DEVICES



1: Activated edges, like this cafe, encourage people to dwell in and observe the site. This encourages passive surveillance.



2: The central steps within 'The Square' space encourages passive surveillance focused towards the corner of Swanston and Flinders streets.



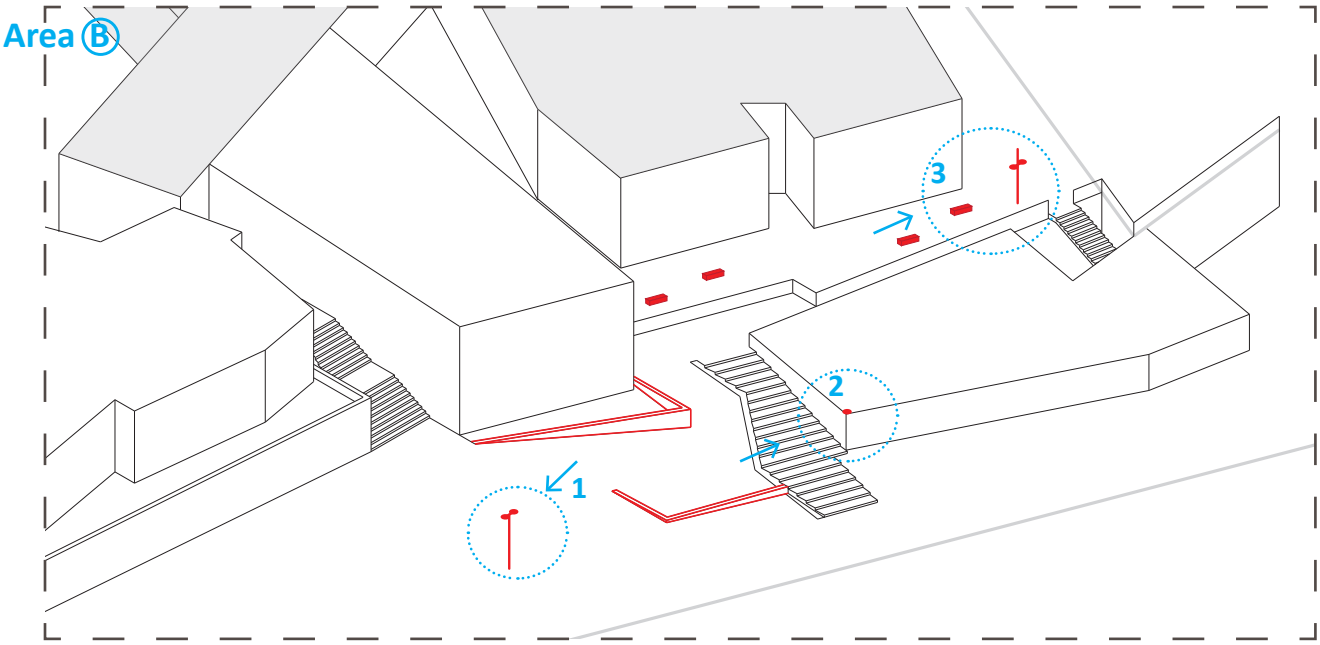
3: Concrete barriers also encourage dwelling and passive surveillance.



4: Fed Sq management provides these deck chairs during summer months. Visitors can move and arrange them as they choose and observe the site.

Area B

The south east corner of the site is probably its quietest area, with very little pedestrian traffic and provision for dwelling in the site. Spatial features here include the large, blank walls of the NGV, topographic separation from the river terrace, and no visual connection to the rest of the site. This isolated corner connects with staircases down to the river frontage and the carpark, and to the rest of the site through one of the buildings. The Zinc Event Space sited at the river terrace level is a private function venue for hire, it does not support dwelling and observance of the site and contributes very little to passive surveillance. Adjacent to the stairs leading down to the river terrace there is a sloped, grassed area that people often use as a place to sit and watch the river in good weather. Four concrete barriers located at the upper level are also used as places to sit. In this case the passive surveillance function appears to be more important than the fortification function that these barriers perform elsewhere in the space. While they are a fortress measure, this area is so quiet and inaccessible it is very low risk from vehicle-borne threats. The fortification function is largely redundant, and the barriers are useful as far as they encourage people to occupy the space. CCTV in this area is actually quite significant, considering how quiet this area is. There are six cameras – two at high level on a pole at the lower river terrace; two at mid-level on a flagpole at the upper level, adjacent to Russell Street and the car park entry; and two on the corner of the Zinc building. The high number of CCTV cameras compensates for the lack of passive surveillance and security patrols; supporting the idea that passive surveillance is a legitimate and relied upon security control measure.



DETAIL VIEW: PANOPTIC DEVICES



1: CCTV cameras along the river terrace at Zinc function centre. These cameras are focused on the Zinc building and this stairway entrance up to the south-east of the site



2: High level CCTV cameras along the river terrace at the south of the site.



3: CCTV cameras halfway up a flagpole observe the south east corner of the site. Concrete barriers here also provide opportunities for passive surveillance.

4.4.2 Regulatory Procedures

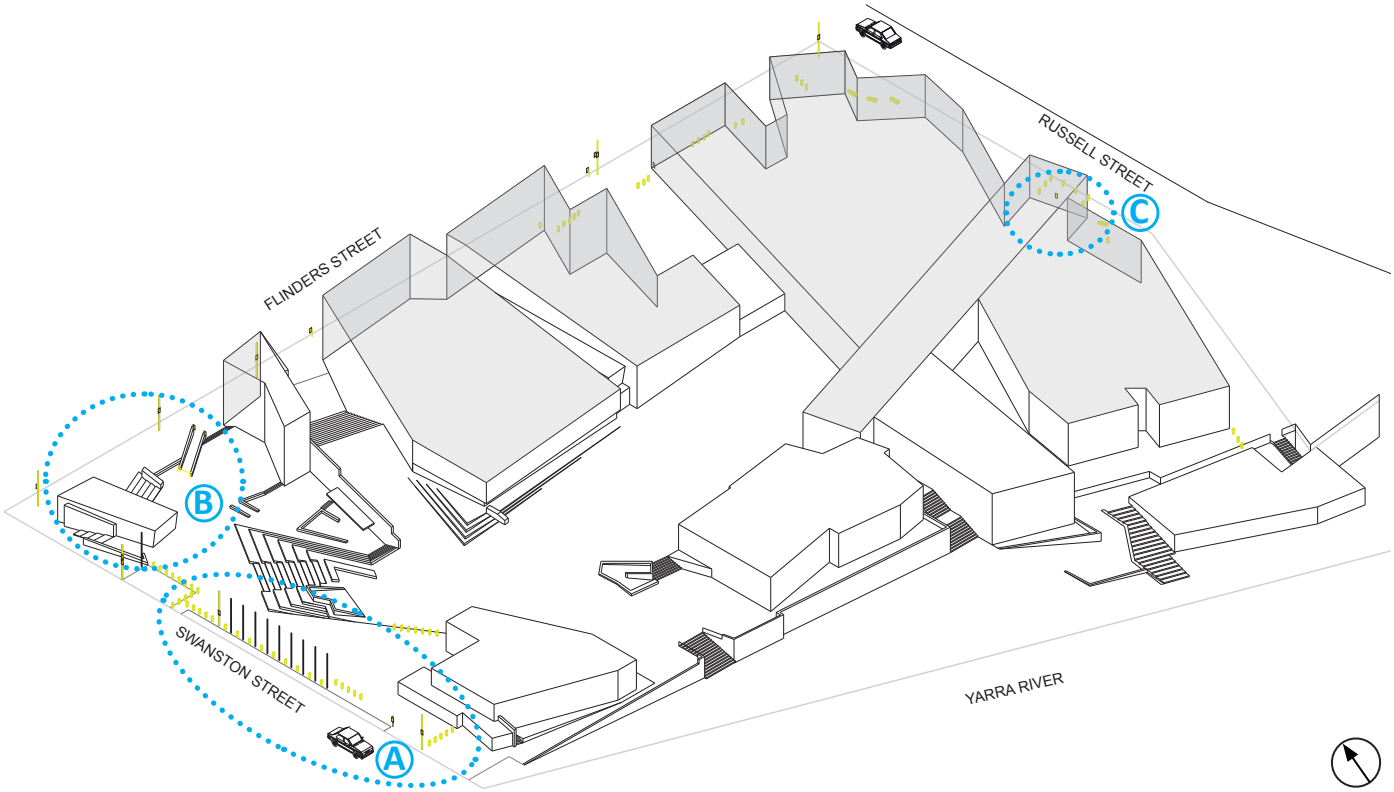
Federation Square is subject to the same laws and regulations that apply across Melbourne and Victoria state. These are not visible in themselves but are evident when police are present and actively enforcing laws. Federation Square is also subject to site-specific rules and regulations which are advertised in the space; made possible because the site is privately managed. Behaviour expectations are implied by site branding and temporary programme, which are strategies to fix a preferred identity to a space and exclude the emergence of alternative identities.[289] Site branding is, in some ways, a fruitless endeavour as places do not have fixed identities. Every person who uses the space will have their own conception of, and relationship with, the place – often in conflict with the preferred identity advocated by authorities. Place meaning and identity is continually formed by users and groups in relation to their own identity and view of the site.[290] The meaning of space is created, and recreated, through the practices that occur in the place. [291] Nevertheless, authorities impose and enforce rules and attempt to fix identity as a way to control behaviour and identify non-compliance which may be seen as a threat. A key difference at Federation Square, compared with the other sites, is that as it is privately managed it is less open to being used for symbolic rituals of State legitimacy such as military marches or political speeches.

There are multiple signs around the site perimeter advising an 'alcohol free zone.' Despite these signs, Federation Square is not alcohol free. What the sign means, is that alcohol is controlled, and cannot be freely consumed or sold. Several of the tenancies serve alcohol, including restaurants and bars. This 'alcohol free zone' rule applies to the public open spaces but is circumvented in the private business areas. Different behaviour rules apply to different parts of the site and this segregation is based on commercial interests. The rules about alcohol sale and consumption define different identities and behaviour expectations at different parts of the site. The layered rules around alcohol consumption create specific parameters within which certain activities, that would otherwise be prohibited, are permitted.[292]. Borders of licit and illicit activity are spread through Federation Square as boundaries between licenced and unlicensed, between inside and outside, and private venue and public space. This is an example of behaviour control through segregated programme with certain behaviours either enabled or constrained through the built form and its rules.[293] This condition also

[289] Miller, "Consumption as Control: Historical Relationships between Regulated and Unsanctioned Practices of Consumption in Public Squares."
[290] Dovey, *Becoming Places: Urbanism/Architecture/Identity/Power*.
[291] Hinkel, "Private Encounters and Public Occupations: A Methodology for the Exploration of Public Space."
[292] Ibid.
[293] Dovey, *Framing Places: Mediating Power in Built Form*. P19.

speaks to layered space – or depth – certain people or groups are allowed access deeper into the site than others.[294] This is not observed at the other case study sites to the same degree.

[294] Hillier and Hanson, *The Social Logic of Space*.



REGULATORY PROCEDURES AT FEDERATION SQUARE

- Site specific regulation signs
- Area specific rules signs
- Site programme
- Site branding
- Local and national laws and regulations operate across the site and are not visibly expressed









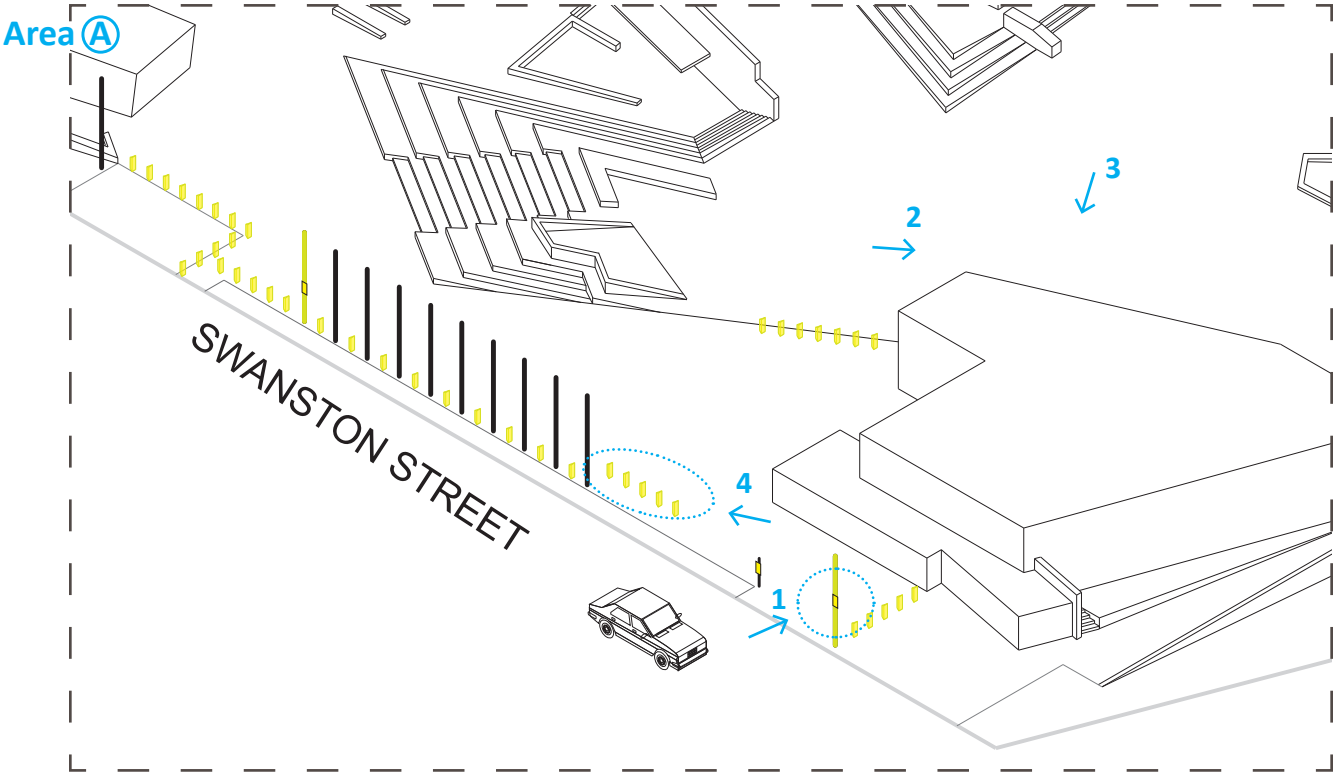




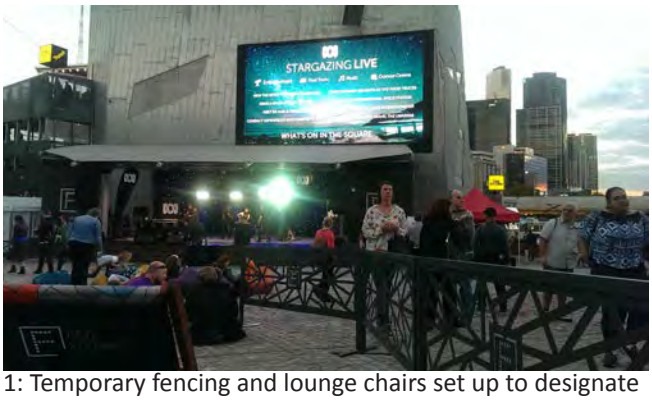
Area A

The western boundary of the site, along Swanston Street, is the busiest area in terms of pedestrian ingress, and traffic passing through and past the site. There is a combination of implied and explicit behaviour control measures at this part of the site. Advertised regulations are found along the flagpoles and advise that the site is private property, that it is an alcohol-free zone, and that there are car parking restrictions. The bollards along this perimeter are marked with the Federation Square 'F' logo, which immediately identifies that this space has a different identity to adjacent open spaces. The logo is branding, which indicates there is management of the site, implying a range of site-specific controls. There are frequently programmed events in the space, usually centred in front of the stage area at the south west of the main square area. These events are organised or approved by Fed Square Management and they fill the space with approved activities and users. Programme is a strategy that creates site identity and works to exclude unsanctioned behaviours and events. Defined identity and the exclusion of unsanctioned activities controls people in the space, without specific rules, by implying what is and is not allowed.

'No alcohol' and 'no parking' signs are explicit, advertised, and enforce behaviour rules. There is space for 9 vehicles, parallel parked, just outside the site in front of the flagpoles. The car spaces are restricted to authorised and emergency vehicles. The use restrictions applied to the parking spots prevents potentially hostile vehicles, car bombs for example, from being parked here. If a vehicle was parked here without authority, Fed Square management has the authority to have it removed and it may be considered a security threat and treated as such.



DETAIL VIEW: REGULATORY PROCEDURES



1: Temporary fencing and lounge chairs set up to designate an audience area for an event. This is a form of segregation as well as branding the site via programme/



2: Alcohol ban signs are located in several places, this one at Swanston Street is facing out of the site to advise people entering the space.



3: Site programme - events were observed on three occasions - they fill the site with preferred activities and temporary physical infrastructure that prevents other activities

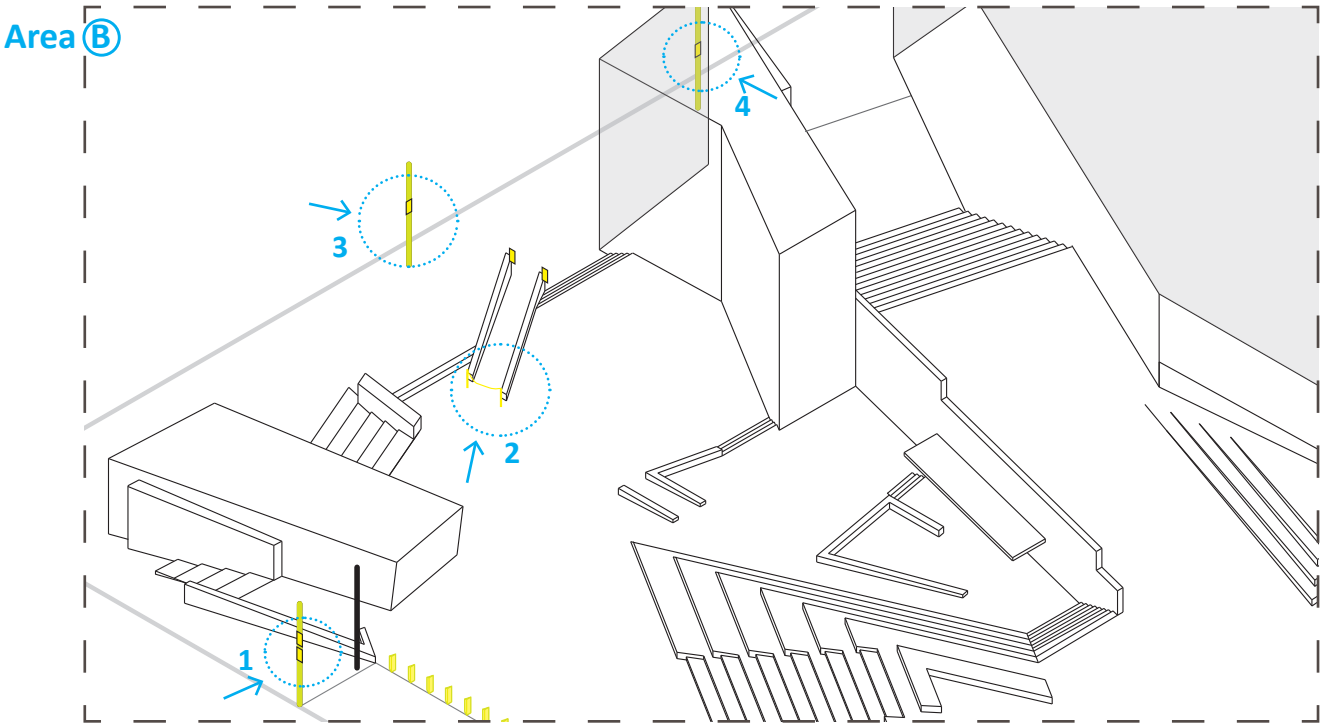


4: Bollards throughout the site are branded with the Federation Square 'F' logo.

Area B

The north west corner of the site, along Flinders Street, has a similar combination of implied and explicit rules as the Swanston Street perimeter. There are parking restrictions applying to private cars and tourist coaches, as well as an advertised alcohol ban. Signs also advise those entering the site that they are under CCTV surveillance. There are advertised penalties associated with the alcohol ban, applied by City of Melbourne Council. At no time was the alcohol ban observed to be actively enforced but advising the penalty encourages people to adjust their behaviour in response. A temporary 'no bicycles' sign and rope barrier was installed across a ramp providing accessible access from Flinders Street into the square. The point is that bike riders should dismount and walk their bikes through the site rather than riding them, which could be a public safety issue. This rule also keeps the ramp clear for users who cannot access the site via the steps. Despite the sign and the awkwardness of riding a bike around the temporary rope barrier, I observed this rule being broken multiple times. People tended to view it as a guideline, and as no penalty or active enforcement was applied there is not much motivation for people to obey the rule. While this area of the site is heavily regulated, the lack of enforcement and penalty undermines the efficacy of those regulations. Here we see a conflict between types of power described by Dovey as 'power over' and 'power to'.[295] Dovey's theory of power is influenced by Foucault and Deleuze, and he provides an accessible introduction to their work. Simply put, 'power to' relates to capacity – the power to do something. 'Power over' is an asymmetrical relationship of one group having power over another and "the power to ensure the compliance of the other with one's will." [296] Dovey explores distinct types of 'power over' including force, coercion, manipulation and authority. In the case of the no bike's sign described, authority is inadequate to ensure compliance and a stronger 'power over', such as force, or the threat of it, may be required. Threat of force is coercion and, Dovey notes, it is a latent power that is internalised in its subject and operates as voluntary action.[297] When power is internalised it becomes invisible to the subject, removing the possibility of resistance.[298]

[295] Dovey, *Framing Places: Mediating Power in Built Form*.
[296] Ibid. P12.
[297] Ibid. P12.
[298] Ibid. P13.



DETAIL VIEW: REGULATORY PROCEDURES



1: Federation Square is 'private property' - a publicly owned, privately managed space. This is the only sign that advises the public of this- it is at high level on Swanston Street.



2: Temporary rope barrier and 'no bikes' sign attempting to prevent cyclists using this ramp. Both were observed to be ineffective.



3: Parking bans along the Flinders Street boundary prevent vehicles lingering along the site edge. Signs also advise people their behaviour will be monitored on CCTV

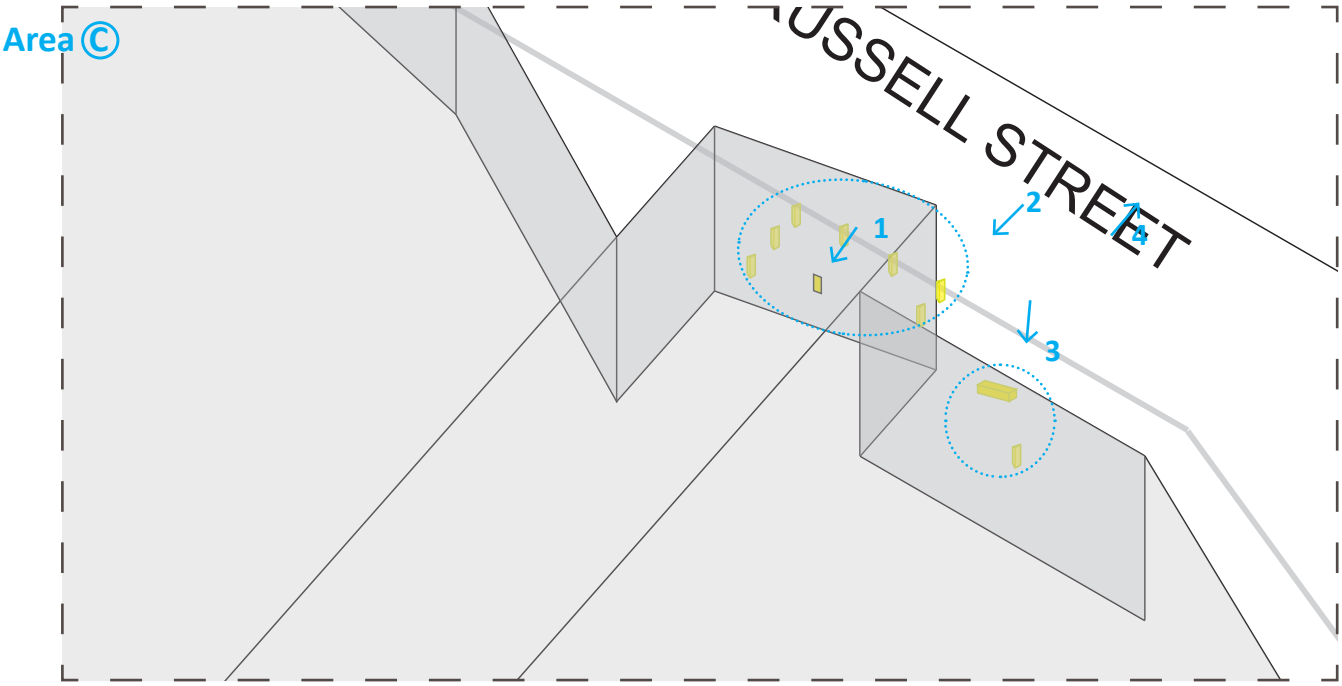


4: Alcohol ban sign located at Flinders Street, facing inwards to the site. This advises people of allowed behaviour and the penalties for non compliance.

Area C

This area is the group and schools entrance to the National Gallery of Victoria (NGV); the main public entrance is inside the site via the atrium building. The east boundary of the site, this entrance faces the car park and Russell Street. This area is generally very quiet in terms of pedestrian flow but there are often tourist coaches parked at this perimeter. There are three regulatory measures in this area worth noting. A sign at the NGV entrance lists hours of operation and the terms and conditions of public entry into the space. The entrance is encircled by metal bollards branded with the Federation Square logo and there are concrete block barriers at either side. The barriers have metal bars inset into the bluestone facing that prevent them being used by skateboarders.

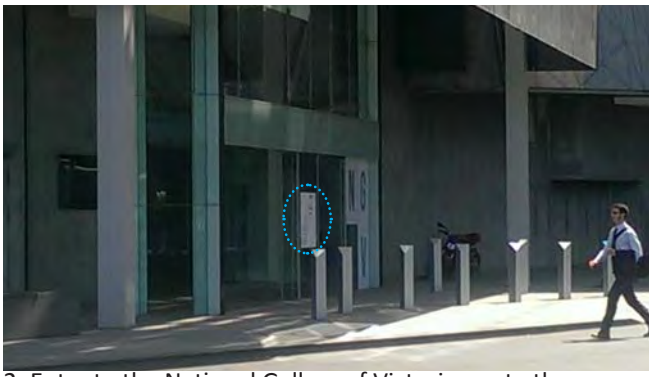
The rules sign for the NGV immediately identifies this space as separate from the rest of the public areas – it is defined by specific hours of access and behaviour requirements. Of the many commercial tenancies in the buildings within the site the NGV was the only one observed to have defined behaviour expectations advertised. The metal bollards encircling the entrance are, primarily, a fortress measure but they also provide a visual clue that there is an entrance at that point. As they are branded, the bollards also help define the identity of the space as belonging to Federation Square. The NGV identity is subservient to the wider site identity as Federation Square. Explicit site identity and conditions of entry define acceptable behaviour in this area of the site in an attempt to control it. This is particularly important because this part of the site is so quiet and does not enjoy the volume of passive and active surveillance found elsewhere. Finally, the metal bars inset into the concrete barriers are a design strategy that implies preferred behaviour. The bars prevent skateboarders using the barriers to perform tricks and different skills. It makes this area unattractive for skateboarding – an activity that management apparently wants to exclude from the area. Rather than defining allowed behaviour with rules or signs etc – the spatial design makes the behaviour impossible. This simple intervention discourages skateboarders from not only this part of the site but adjacent areas. It is a very effective strategy. There are possible public safety, liability and amenity concerns; skateboarding is not a national security concern.



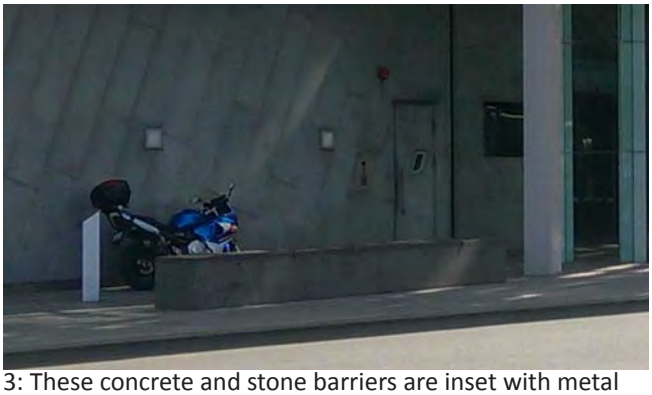
DETAIL VIEW: REGULATORY PROCEDURES



1: Terms and conditions of entry to the public National Gallery. The Gallery is a restricted public space that is only open during day time hours.



2: Entry to the National Gallery of Victoria - note the bollard array and the sign advertising entry conditions (indicated).



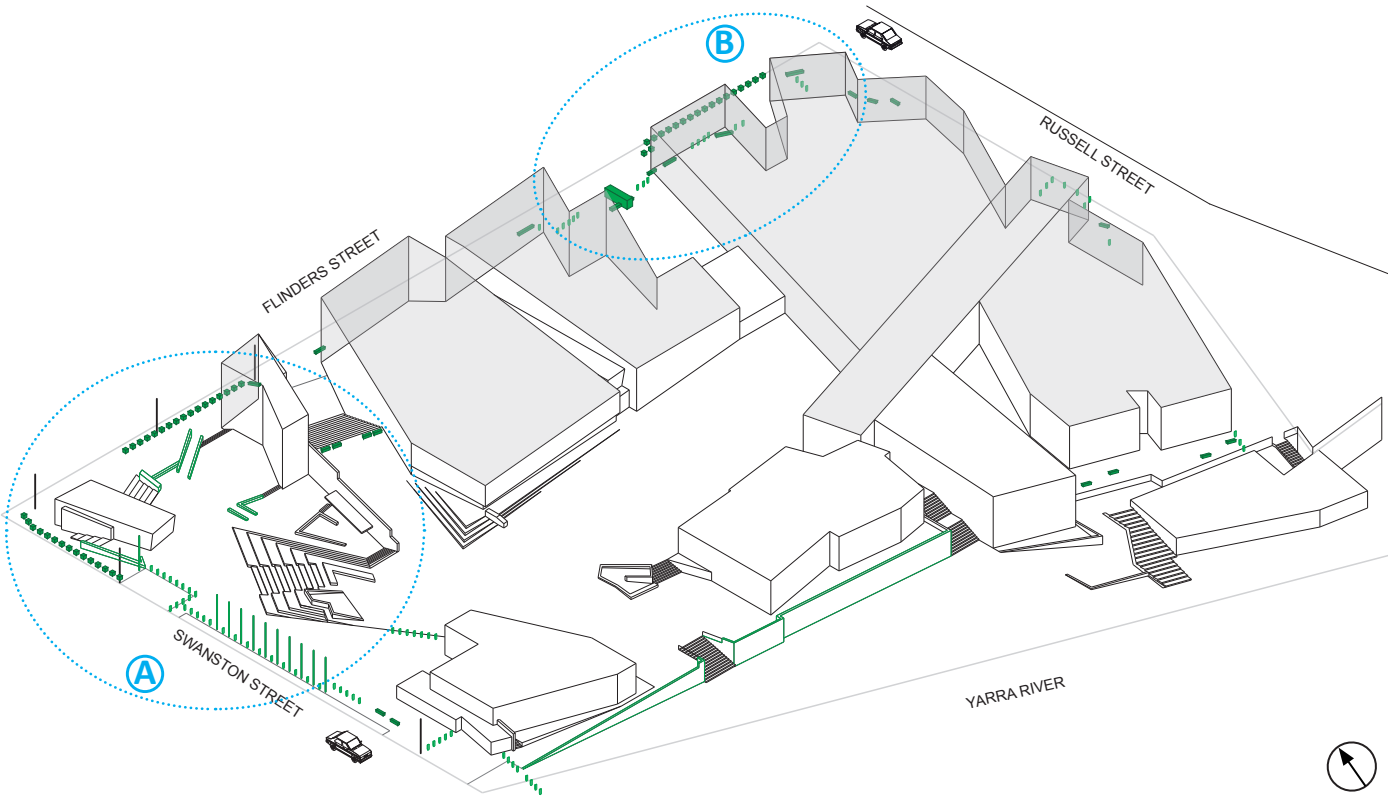
3: These concrete and stone barriers are inset with metal bars that prevent skateboarders using them for tricks. This is an example of allowed behaviour implied by design, as well as fortification - note also the single bollard.



4: Notice of CCTV surveillance and parking restrictions oppostite the National Gallery of Victoria.

4.4.3 Fortress Measures

Federation square is open and permeable at the west and north, but very closed across the east and south. The impermeable perimeters are caused by blank walls of buildings and retaining walls next to the river terrace. These walls create a space that is both visually closed – high walls with few openings – and physically closed, with a small number of access points into the site. The western and northern perimeters are more open – both visually and physically. There are fewer buildings and there is more variation in height and setback. It is possible to see into the site from these perimeters, and to access the buildings through several entry points. However, while there is a high degree of visual permeability, physical access is still highly controlled. The original design of Federation Square did not include the bollards and concrete barriers that exist today. These elements were added in stages – some during construction and some later. Always in response to perceived terror risks at public places of mass gathering. Overall, Federation Square is heavily fortified with a variety of different measures and tactics, some of which have changed over time. Analysing several areas in more detail reveals the way that fortress measures work together to control the space.



FORTRESS MEASURES AT FEDERATION SQUARE

- Metal bollards (branded)
- Temporary concrete blocks
- Concrete or stone benches
- Concrete planter
- Fences / balustrades
- Poles (lights, flags, signs)







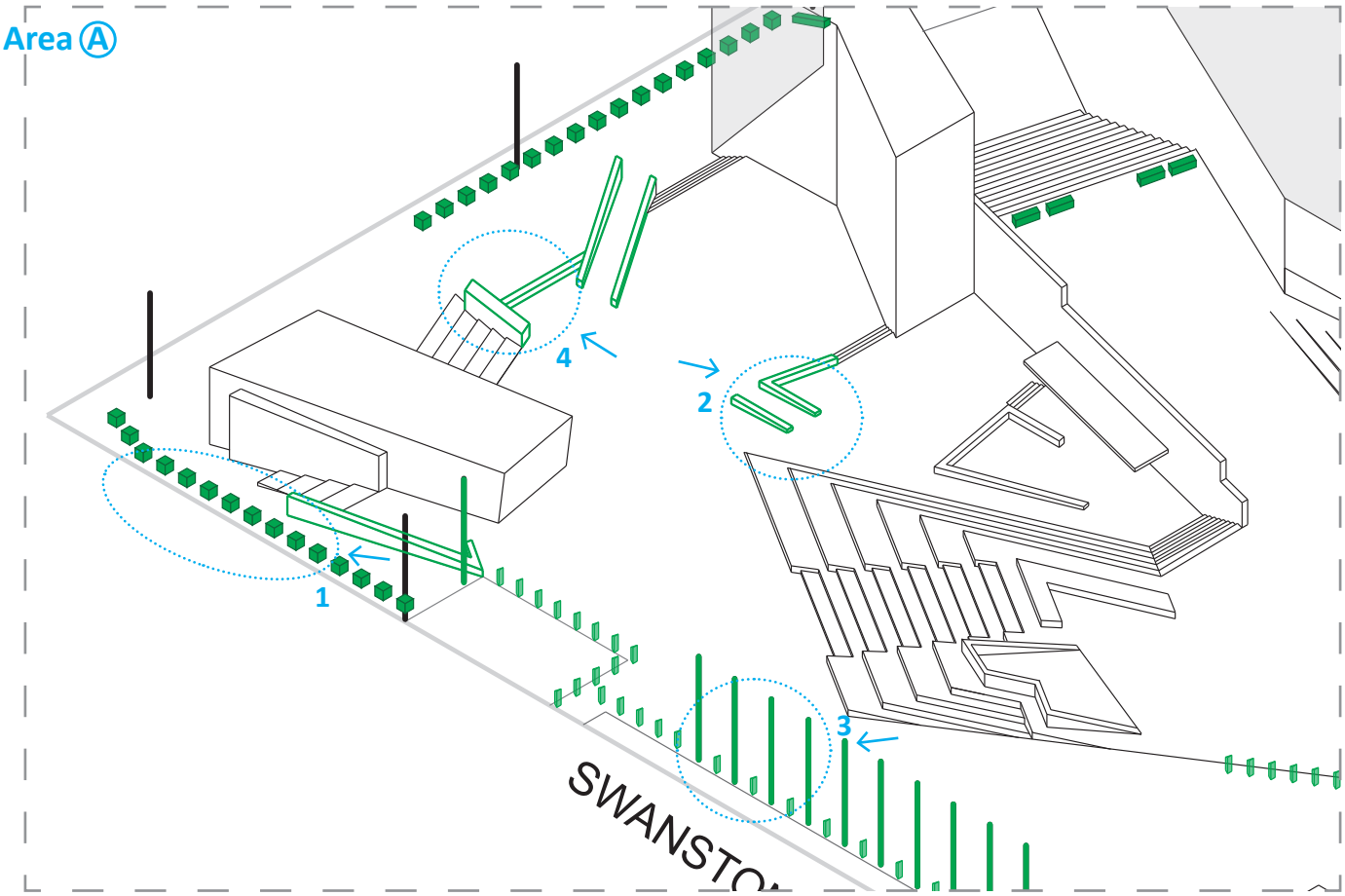

Area A

The north west corner of the site is the busiest area, with a high level of visitors dwelling as well as experiencing the most pedestrian traffic flow. Spatially, the site expands out towards this corner, in contrast to the contraction and enclosed space that characterises the centre and east of the Square. This corner is visually open - it is possible to see into and through most of the site. There is also a high level of symbolic value at this part of the site. It connects to Melbourne's busiest intersection and is adjacent to St Paul's Cathedral, Flinders Street railway station and Young and Jackson's hotel; three buildings of social, cultural and historical significance to the State of Victoria. There is a complexity to this part of the site that relates to its identity, its usage patterns and its spatiality. All of these aspects combine to make the north west corner of the site the highest risk area and also the most controlled. The fortress measures here reflect this need to control and manage risk while also maintaining the openness and accessibility that is essential for the functioning of the site. There are several types of physical fortress measures, both at the perimeter of the site and set back within it, that enclose and control while maintaining physical permeability for pedestrians.

There are 31 steel triangular prism bollards along the Swanston Street (west) boundary. These were added in 2001 during site construction as a desire to increase security in response to the September 11 attacks in the USA. This is despite there being no active terror or security threat towards Federation Square at that time. A portion of the row of bollards is set back to provide pedestrian storage at the crossing to Flinders Street railway station. Further south, once the bollards return to the site boundary, they alternate with steel flagpoles which function as very tall bollards. The flagpoles here serve multiple purposes including advertising (on the flags), delineating the site boundary, and as a physical barrier. Neither the flagpoles nor the bollards prevent pedestrian access – including bicycles, wheelchair users, people with prams or trolleys etc. They are not a barrier that prevents accepted uses of the site. They do, however, prevent vehicles from accessing the site. Further to the north, towards the Swanston and Flinders streets corner, there are 15 concrete blocks which were installed as a temporary security measure in 2016 after a hostile vehicle attack in nearby Bourke Street. They are to be eventually replaced with a permanent solution, however that is likely to be a similar type of bollard or barrier. They were installed pre-emptively as a knee jerk response to fears of further hostile vehicle attacks throughout the city, not in response to any known and expected threats to the site. The concrete blocks are a crude solution that are more about the appearance of security than providing real and considered safety upgrades. The fortress measures along Swanston Street were not original components of the design and all of them were subsequently installed as preemptive security

measures independent of a known security threat. These fortress measures would be effective against a vehicle borne threat but would not work against an individual attacker.

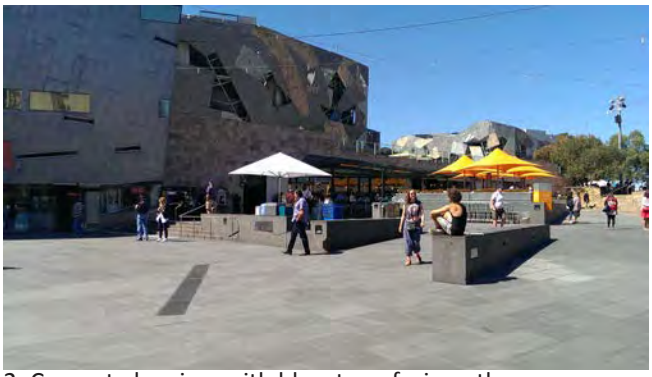
Deeper within the site there is an additional layer of fortification in the form of concrete barriers (faced in bluestone). These elements also serve to direct pedestrian flows and delineate areas within the site. The barriers are located in from the Flinders Street perimeter and adjacent to the sweeping steps within the St Paul's forecourt area. The site slopes upwards at this point and there are two sets of steps and a ramp from the Flinders Street footpath up and into the body of the site. The concrete barriers delineate these access points and form a retaining wall. The steps themselves also have a fortress capacity as they reduce vehicle permeability. Further into the site, concrete barriers delineate a path into the site towards the large sweeping steps and around the edge of the private café. The blocks act as a filtering device and are also used as a place to sit and observe the site. These barrier elements were part of the original construction and their fortifying function was not a reactive retrofit.



DETAIL VIEW: FORTRESS MEASURES



1: Temporary concrete block bollards along the Swanston Street boundary. There are two more rows of these along Flinders Street.



2: Concrete barriers with bluestone facing - these permanent elements form part of the site furniture and divide the space. These are set back within the site.



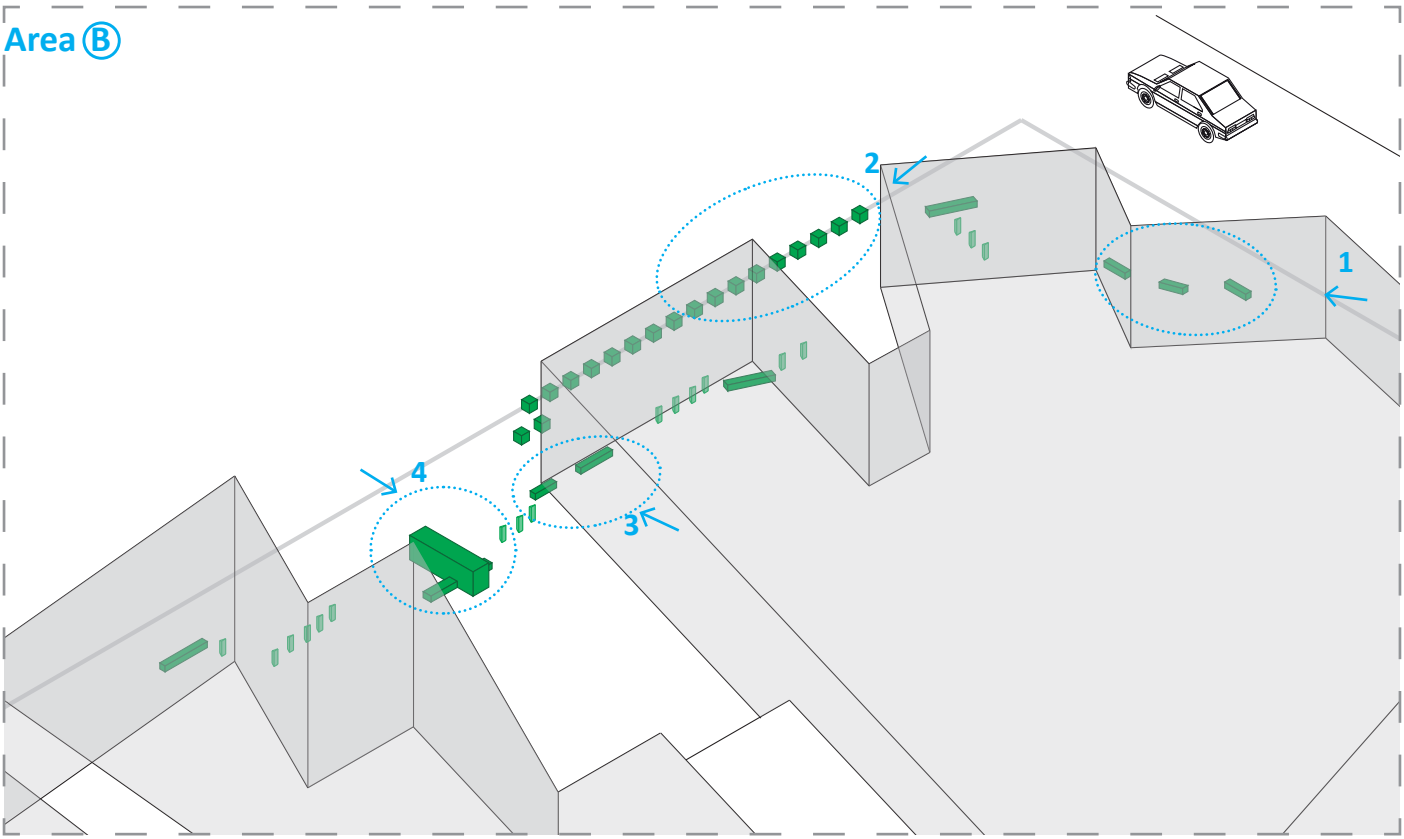
3: Alternating row of flagpoles and bollards create a semi-permeable boundary along Swanston Street.



4: Metal fencing combined with concrete blocks and steps at Flinders Street. This area is also being used to store temporary metal fencing.

Area B

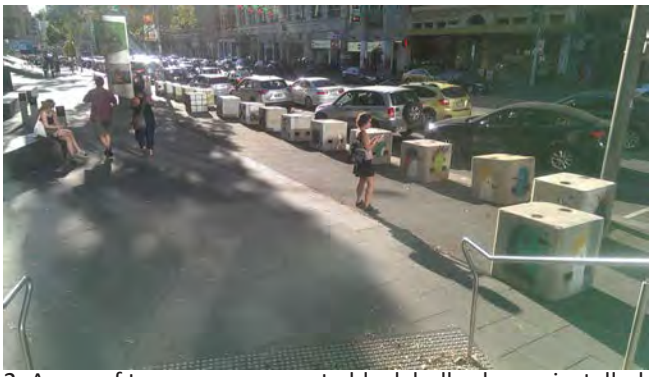
The north east of the site, along Flinders Street and at the Flinders and Russell corner, is not a very vulnerable or high-risk part of the site. This edge does not have the symbolic capital that is found at the north west corner; nor does it have the same quantity of people occupying or moving through. Nevertheless, there are still various forms of physical fortress measures including metal bollards, concrete barriers, and temporary concrete blocks. This corner of the site is more heavily built up than towards the west, and while the buildings are all accessible, they do create tall, sometimes blank walls. Physical fortress measures are concentrated at the most open parts of the perimeter buildings indicating their function to prevent vehicle access into the space. Metal bollards here were added to the design during construction, as per those at the west of the site. The row of temporary concrete blocks was retrofitted, along with those in the north west, in 2017. There is a large concrete planter and several low concrete barriers that were part of the original site construction. This corner of the site demonstrates the same development of fortification as Area A, discussed above. There is a gradual increase of fortification – installed in response to threats *elsewhere*. Fortifications have not been removed from the site, even as the threat environment changes, meaning that there is an inevitable creep towards ever more extensive control and fortification.



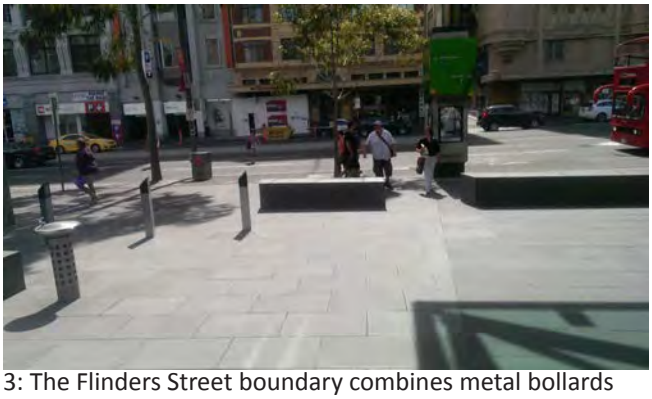
DETAIL VIEW: FORTRESS MEASURES



1: Concrete barriers with bluestone facing along Russell Street. These are used as seating and discrete barriers.



2: A row of temporary concrete block bollards was installed near the corner of Flinders and Russell streets.



3: The Flinders Street boundary combines metal bollards with concrete barriers as permanent features. The barriers serve a dual purpose as seating.



4: Along Flinders Street is this large planter box element with low barriers and an adjacent row of metal bollards.

5 Case Study: Trafalgar Square, London, UK

5.1 Relevance & Research Potential

London has been well-researched from a security perspective; however, scholarship has focused on city or borough-wide concerns rather than individual sites.[299] Security concerns include understanding the nature of urban terrorism, intelligence and policy,[300] deterring or mitigating terrorism, and the effect of security and CT measures on perceptions of safety, suspect communities and access in public spaces.[301] There is a lack of research into the street-level arrangement and distribution of CT measures in London. Jon Coaffee's research into London's 'Ring of Steel' is an example of smaller scale, street-level analysis that describes the historical development of counterterrorism measures within the boundaries of the City of London borough.[302] Recent literature considers London's security strategies as reflections of the city's past experiences of terrorism which shapes the preparation for probable future events and the decision making process during emergencies.[303] Framing the enquiry around pre-emption (which politically and temporally extends the ideas of preparation and defence) provides new insight into the spatial logic of contemporary security measures in London's public open spaces, such as Trafalgar Square.

5.2 Description, Background & History

Trafalgar Square is located in central London (Figure 5.1) near the intersection of several major roads and close to other significant landmarks and institutions (Figure 5.2). Indeed, the Square is essentially at the centre of London as it sits just north of the Charles I statue, from which all distances to London are measured throughout Britain.[304] Trafalgar Square is bound to the north by the National Gallery, to the east by Charing Cross Road, to the west by Trafalgar Square Road. At the south, a roundabout intersection feeds the major thoroughfares of The Mall, Whitehall, Strand and Northumberland Avenue. This roundabout is the location of the Charles I statue mentioned above. At the south-east

[299] Charlotte Heath-Kelly, "Reinventing Prevention or Exposing the Gap? False Positives in Uk Terrorism Governance and the Quest for Pre-Emption," *Critical Studies on Terrorism* 5, no. 1 (2012). 69-87.
[300] Denis Fischbacher-Smith, "Framing the Uk's Counter-Terrorism Policy within the Context of a Wicked Problem," *Public Money & Management* 36, no. 6 (2016). 399-408.
[301] Breen-Smyth, "Theorising the "Suspect Community": Counterterrorism, Security Practices and the Public Imagination." 223-240.
[302] Coaffee, "Rings of Steel, Rings of Concrete and Rings of Confidence: Designing out Terrorism in Central London Pre and Post September 11th." 939-954.
[303] Adey and Anderson, "Event and Anticipation: Uk Civil Contingencies and the Space-Times of Decision." And Anderson and Adey, "Governing Events and Life: 'Emergency' in Uk Civil Contingencies."
[304] BBC, "History Feaures: Where Is the Centre of London," http://www.bbc.co.uk/london/content/articles/2005/08/15/charingcross_feature.shtml.

corner of the site there is an entrance to the Charing Cross underground tube station. The boundaries of the study area are described in Figure 5.3, below.

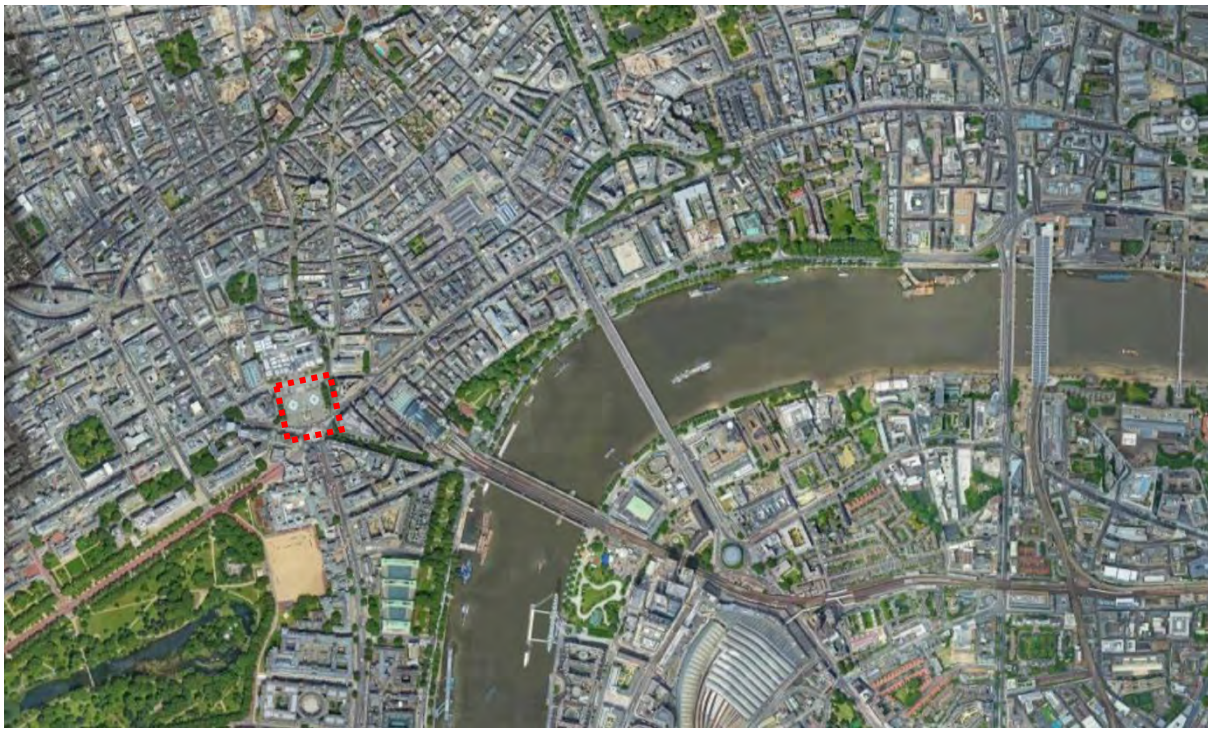


Figure 5.1: Aerial view of Trafalgar Square (in red) in the context of central London. Source: Google Maps, 2019.

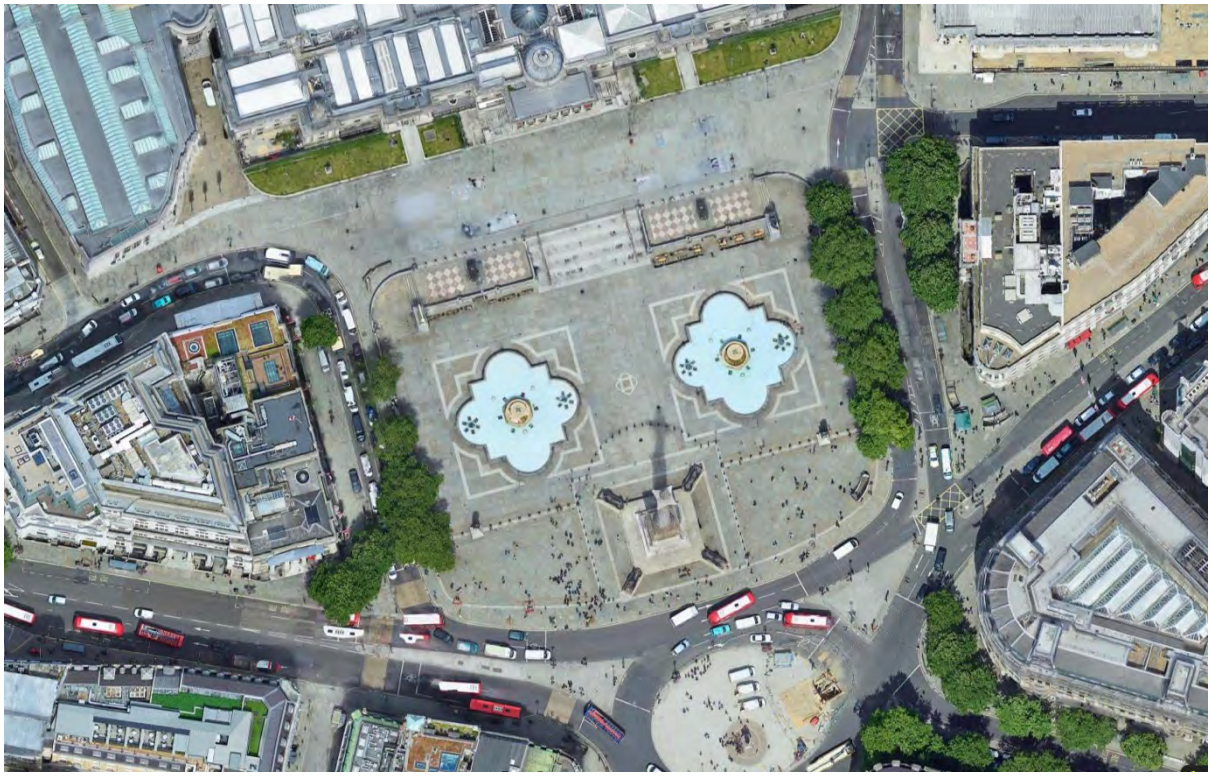


Figure 5.2: Aerial view of Trafalgar Square, indicated. Source: Google Maps, 2019.

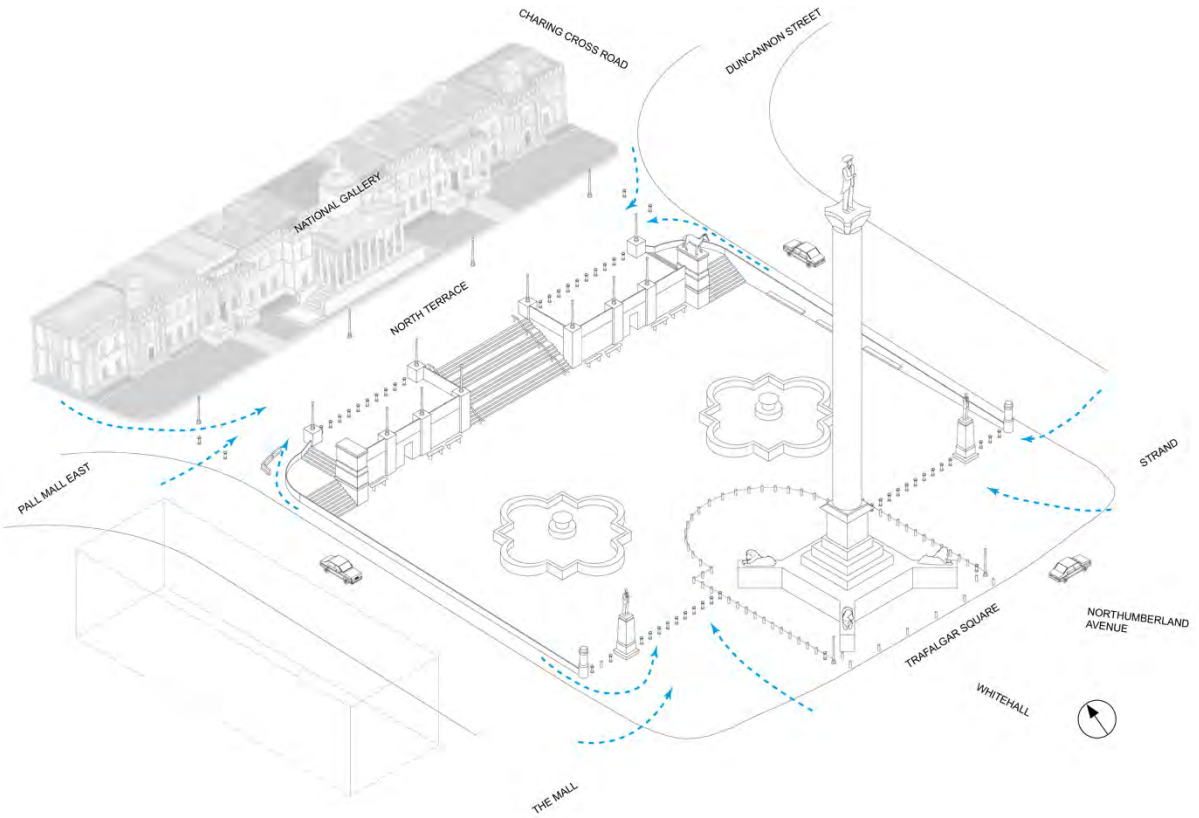


Figure 5.3: Diagram of the study area at Trafalgar Square. Blue arrows indicate access into the site.

The area that became Trafalgar Square was laid out by John Nash during the 1820s building boom as part of his Metropolitan West Strand Improvements plan and city-wide urban redevelopment.[305] Nash's plan formalised the area constituting the Great Mews and Crown Stables, that had served the Palace of Whitehall, creating the opportunity for a public open space (refer Figure 5.4 below).[306]

[305] Jean Hood, *Trafalgar Square: A Visual History of London's Landmark through Time* (London: BT Batsford, 2005).
[306] Built Environment, "Trafalgar Square: Conservation Area," ed. Department of Planning and City Development City of Westminster (London: Westminster City Council). And Roger Hargreaves, *Trafalgar Square: Through the Camera* (London: National Portrait Gallery Publications, 2005).



Figure 5.4: Extract of map of London by MA Leigh, published in 1834, showing the area of the Royal Mews (indicated in red) where Trafalgar Square is located today.[307]

In 1840 Sir Charles Barry designed the formal space that we see today (Figure 5.5), as a memorial to Admiral Lord Nelson's victory at the Battle of Trafalgar in which he was fatally wounded; it opened to the public in 1844.[308] Barry prepared several variations of the design we see today, including one with a large central pool, which would have limited the space available for public gathering significantly, rather than fountains. An Ordnance Survey Map of 1871 (Figure 5.6) shows the site was developed largely in line with Barry's earlier drawing. A note 'Site of The Royal Mews' is overlaid on the Square and the bollards are in a slightly different pattern than Barry designed. The bollards have been further altered since then. For example, a line of bollards to the north of the site dividing the Square from the road in front of the National Gallery has been altered to make space for new steps. The original fountains were upgraded to a design by Sir Edwin Lutyens in the 1930s. The dominant feature of the site – Nelson's Column (designed by William Railton; the statue of Nelson is by Edward Hodges Baily) was built between 1840 and 1843. The lion sculptures at its base (designed by Sir Edwin Landseer) were added in 1867. The four statue plinths at the corners of the Square were gradually filled in between 1843 and 1861; the fourth plinth (north-west corner) remains empty and is used for temporary commissioned artwork.

[307] Hood, *Trafalgar Square: A Visual History of London's Landmark through Time*. P22.
[308] Conservation Architecture & Planning, "Trafalgar Square Conservation Area Audit," ed. Department of Planning and City Development Development Planing Services (London: City of Westminster, 2003).

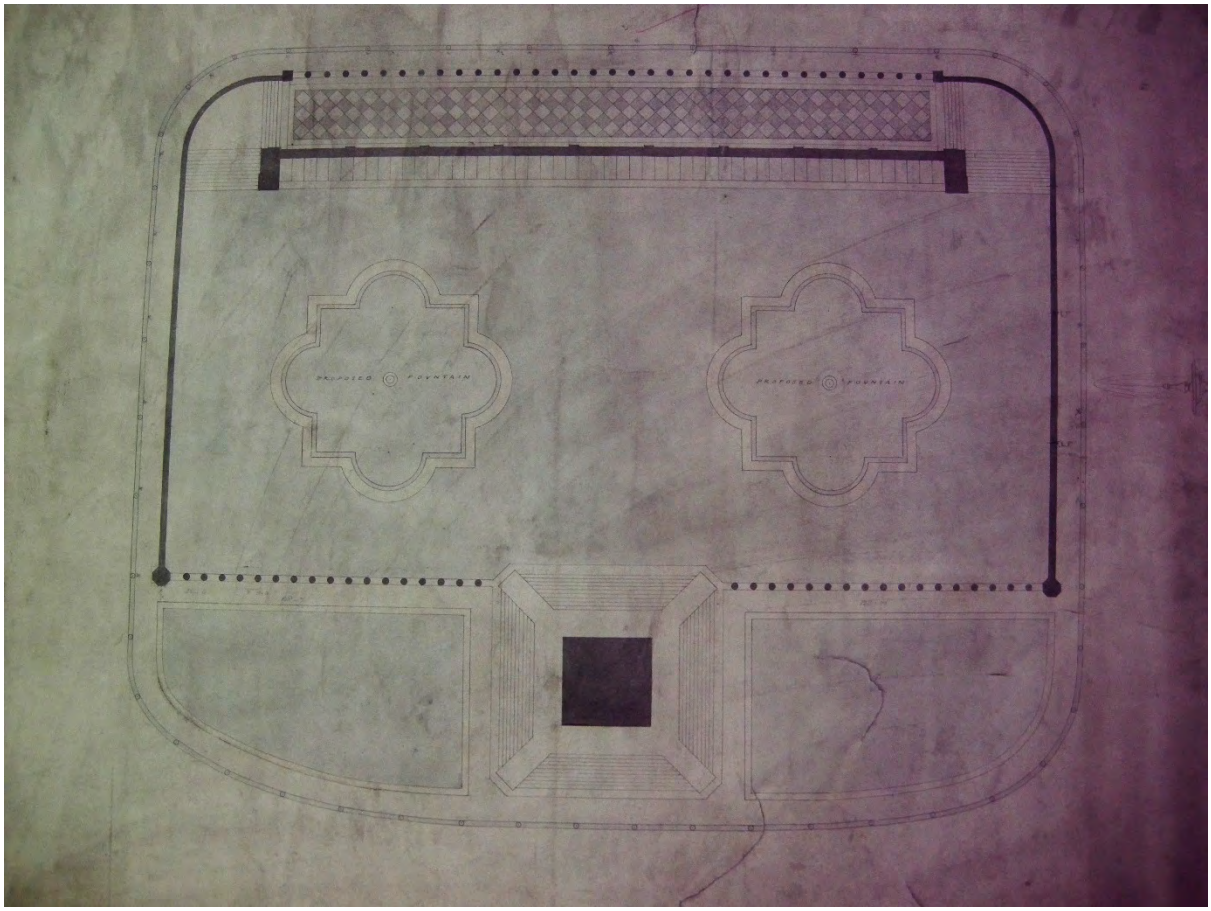


Figure 5.5: Extract of plan drawing by Sir Charles Barry, dated May 1843, showing the original design for Trafalgar Square.[309]

Nelson's Column is positioned on a stepped stone plinth, the four sides of which feature relief scultpure depicting aspects of the Battle of Trafalgar and, in particular, Nelson's involvement in that battle. At each of the four corners of the stone plinth there is an extension of the stone base to produce four more plinths, each one with a sculpted Lion in bronze. The Lion is significant as a heraldic symbol of the United Kingdom, appearing on the UK coat of arms. The monument is highly nationalistic, presenting an idealised vision of the nation and the war hero Nelson. Various upgrade and improvement plans have been proposed for the Square over the years. A study in the 1960s, led by London Councillor Sr Leslie Martin, included a proposal to replan the Square on 'Buchanan Principles' involving the pedestrianisation of three sides of the square (except the south) and St Martin's Place (Figure 5.7). The proposed pedestrian area was extended in a design from 1969 prepared by the City of Westminster Department of Architecture and Planning (Figure 5.8).

[309] Sir Charles Barry, *Trafalgar Square Plans and Elevations,* 1840. The National Archives, Kew. Document Reference WORK35/51.

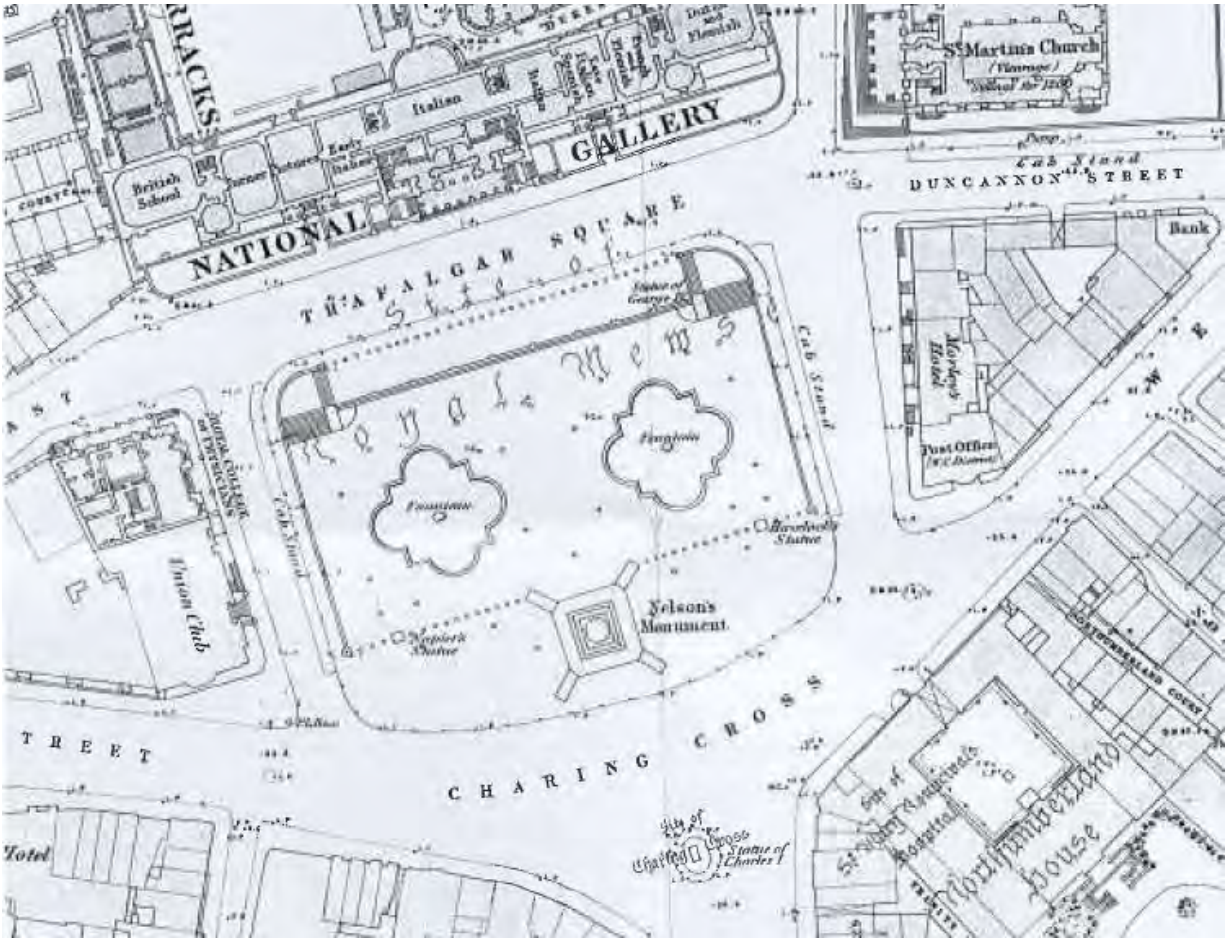


Figure 5.6: Extract of Colonel RE Bayly's 1871 map of Trafalgar Square & Charing Cross for the Ordnance Survey Office. Show Trafalgar Square soon after construction.[310]

[310] Colonel R.E. Bayly, "Charing Cross & Trafalgar Square," in *The Godfrey Edition*, ed. Alan Godfrey (Consett, UK: Alan Godfrey Maps, 1871).



Figure 5.7: Extract of Replan of Trafalgar Square drawing, 1966, showing proposed pedestrian area hatched in blue with rerouted traffic indicated by the large arrows.[311]

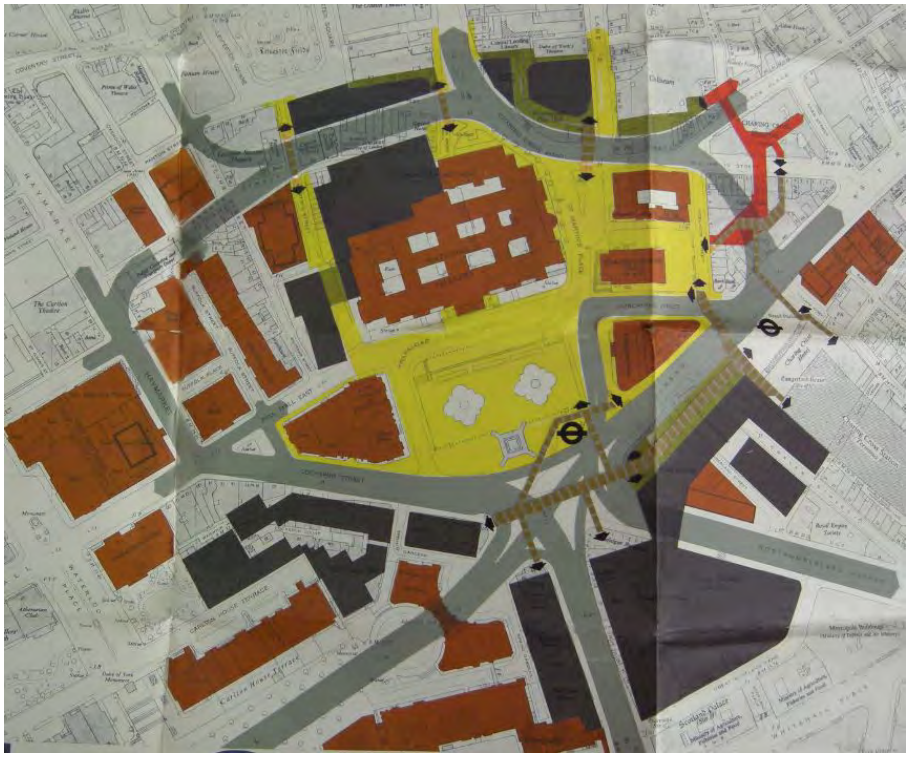


Figure 5.8: Extract of Trafalgar Square Study drawing by the Civic Design Group at the City of Westminster. The yellow area is pedestrians at ground level, the striped lines indicate pedestrian subways.[312]

[311] "Westminster City Trafalgar Square Improvement," ed. Department of the Environment (London1967). The National Archives, Kew: file AT 41/29.

[312] Extract of Trafalgar Square Study, City of Westminster: Department of Architecture & Planning, April 1969. The National Archives, Kew: file AT 41/29.

The National Gallery, neighbouring Trafalgar Square to the north, was upgraded in 1997 by architects Venturi, Rauch and Scott Brown. Architects' site plans of the Gallery provide some detail about the state of Trafalgar Square at that time. The drawing is very simple but does show the key features of the site including the boundaries and the layout of bollards and posts.

Trafalgar Square was upgraded in 2003, pedestrianizing the north terrace (between the Square and the National Gallery) and adding a café, toilets and providing lift access between the north terrace and the body of the square. This upgrade was part of the 'World Squares for All' project which intended to make important public spaces more easily accessible. The pedestrianisation and upgrade, designed by Norman Foster, was opposed by many local residents and the City of Westminster Council largely on traffic impact grounds. According to the Greater London Authority, the Square is the main national site for protest and public democratic expression. This is part of the site's history and identity; the role of public gathering is important to the site and the regular protests and events that occur in the site are supported by the Mayor of London.[313] Pedestrianizing the north terrace essentially creates an extra threshold layer restricting access to the space, and it increases stand-off distance in front of the Gallery.

Historically, Trafalgar Square has maintained a reputation as a site not only for public gatherings but also for vice and violence (Figures 5.9 to 5.12). During the Victorian era, and in the early twentieth century, Trafalgar Square was well known as a site for prostitution and rough sleepers.[314] [315] In the late twentieth century, Trafalgar Square was well known as gathering place for Scottish and English football supporters (aka hooligans) who came together to celebrate or commiserate their team's efforts. Gatherings often turned violent. The Square was also the site of riots, demonstrations and rallies for political and social causes throughout the twentieth and twenty-first centuries. Trafalgar Square facilitates, and to some degree encourages, these types of volatile or subversive activities, through its central location, openness, publicness and physical layout. The Square provides several platform-type spaces for speakers and readily absorbs a crowd (which can just as easily disperse). This history has become part of the site's folklore and part of its identity within the city and nation. As the Square is totally public and totally open, efforts to control subversive and volatile activities need to rely on legislation and police enforcement, as groups cannot be segregated from the Square unless they violate the Byelaws or break the law. Therefore, efforts to control and secure the space primarily rely on monitoring, surveillance, intervention and prosecution.

[313] Greater London Authority, "Trafalgar Square," https://www.london.gov.uk/about-us/our-building-and-squares/trafalgar-square.
[314] Catharine Arnold, *City of Sin : London and Its Vices* (London; New York: Simon & Schuster, 2010).
[315] Hargreaves, *Trafalgar Square: Through the Camera*.



Figure 5.9: Suffragette Rally in Trafalgar Square, 1908. Note the police officers as Jennie Baines speaks from the platform of Nelson's Column.[316]



Figure 5.10: Poll Tax Riot, 31 March 1990.[317]



Figure 5.11: Angry football fan in Trafalgar Square following England's World Cup Quarter Final defeat to Brazil in 2002.[318]



Figure 5.12: England fans console each other after the 2002 World Cup Quarter Final defeat. Note the temporary barriers set up to protect the fountains.[319]



Figure 5.13: Panoramic image of Trafalgar Square, dated 1908.[320]

[316] Ibid. p36
[317] Ibid. p98
[318] Ibid. p104
[319] Ibid. p105
[320] Notman Photo Co. United States Library of Congress Prints and Photographs Division, digital ID pan.6a22725.

5.2.1 Legislation

Trafalgar Square was initially controlled by the Trafalgar Square Act, 1844, which gave the Controller of Works power to regulate the proper uses of the Square.[321] Today, the site is governed by several levels of hierarchical authority. The Parliament of the United Kingdom is the supreme legislative authority and is headed by the Queen, Elizabeth II. England is broken up into counties for administrative and legal purposes. The site is located within the Greater London County, governed by the Greater London Authority (GLA). At the local scale Trafalgar Square is situated within the Ward of St James in the City of Westminster borough; the City of Westminster council is the local government authority. While the Square is in the City of Westminster, it is governed by the Greater London Authority, and is therefore a sort of administrative enclave.

Parallel to these descending layers of control, the site is located within two other conceptual perimeters: the 'congestion charge' zone and the 'ring of steel'. The congestion charge zone is an area of central London with restrictions on vehicle access which utilises nearly 700 surveillance cameras monitoring the 178 entry points to the zone, as well as roaming units which can be deployed under cover.[322] The cameras are ostensibly used to identify vehicles that enter the zone but do not pay the congestion charge; however the collected data can also be used to monitor the movement of individual vehicles. The 'ring of steel' was first implemented in 1993 as a response to an IRA bombing in Bishopsgate. Initially the ring of steel only surrounded the financial district and secured all entrances to the area, reducing the total number of access points and monitoring all entrances with armed police and funnelling vehicles with physical barriers.[323] Following the events of September 11, 2001 the ring of steel expanded in area and in the number of police and CCTV cameras monitoring the space.[324] The ring of steel and the congestion charge zone act as virtual perimeters of digital surveillance, a city scale virtual panopticon.

National Government

The national counterterrorism strategy is overseen by the Home Office, led by the Home Secretary. The UK's main CT strategy is called CONTEST and consists of four arms – *pursue, prevent, protect* and *prepare*.[325]. The four arms are quite clear in their objectives; pursue suspects prior to their committing

[321] Iain Channing, *The Police and the Expansion of Public Order Law in Britain, 1829-2014.*, Routledge Solon Explorations in Crime and Criminal Justice Histories (Hoboken: Taylor and Francis, 2015). 119
[322] Alex Haw, "Cctv London," *AA Files*, no. 52 (2005). 58.
[323] Coaffee, "Rings of Steel, Rings of Concrete and Rings of Confidence: Designing out Terrorism in Central London Pre and Post September 11th." 203-204.
[324] Ibid.
[325] Theresa May, "Contest: The United Kingdom's Strategy for Countering Terrorism," ed. Home Department (London: The Stationery Office Limited on behalf of the Controller of Her Majesty's Stationery Office, 2011).

an attack, prevent radicalisation, protect places against threat, and prepare for an attack through mitigation strategies.[326] Alongside the CONTEST strategy, the UK Government has a broader 'National Security Strategy' which encompasses defence as well as security from a national perspective.[327] These broad scale national strategies feed into more spatially specific security responses. The Office of the Deputy Prime Minister and the Home Office produced, in 2004, guidelines for preventing crime through planning using surveillance, ownership, management, access, structure and activity strategies.[328]

The UK's earliest specific counterterrorism legislation was enacted in 1974, the *Prevention of Terrorism (Temporary Provisions) Act*. The UK's legislative framework and historical experience of terrorism is one of the most extensive in the world, meaning that as other countries rushed new legislation through following 9/11, the UK had an existing base of legislation to build on. National CT and security legislation includes hundreds of acts and statutory instruments. The most recent Act is the Counter-Terrorism and Border Security Act 2019, which describes powers to seize documents and exclude a person from the UK, investigation measures, data retention, and preventing people being drawn into terrorism.[329]

Trafalgar Square Byelaws

In 2012 the 'Trafalgar Square Byelaws 2012' were introduced under the Greater London Authority Act (1999) and the Local Government Act (1972).[330] The byelaws are necessary for "securing the proper management of Trafalgar Square, and the preservation of order and the prevention of abuses there."[331] These byelaws are enforceable by police constables. The byelaws are quite brief and define acts which are prohibited within the square (such as camping); acts for which permission is required; and controls activities such as feeding birds, trading and providing identification when asked. The byelaws are posted up within the Square and are visible to anyone who chooses to look at them although their presence is not advertised.

Other authorities

Trafalgar Square has been listed by English Heritage as a conservation area since 1996. It is listed as Grade 1 in the heritage category 'Park and Garden' which emphasises planned open spaces such as

[326] Ibid.
[327] David Cameron and Nick Clegg, "A Strong Britain in an Age of Uncertainty: The National Security Strategy," ed. Cabinet Office (London: The Stationery Office on behalf of the Controller of Her Majesty's Stationery Office, 2010).
[328] Davies, "Safer Places: The Planning System and Crime Prevention."
[329] "Counter-Terrorism and Border Security Act," ed. UK Government (2019).
[330] Boris Johnson, "Trafalgar Square Byelaws," ed. Greater London Authority (London: Secretary of State, John Penrose MP, 2012).
[331] Ibid.

private gardens and town squares. Grade 1 is the highest level of listing and designates a place of exceptional interest to the nation and covers buildings such as Buckingham Palace and the Tower of London. However, the listing details do not describe the reasons for the site's significance, value or inherent interest to the nation. It does state that "Due to its prominent location, the site is frequently used for public meetings, political rallies, demonstrations and celebrations."[332] Registration is under the Historic Buildings and Ancient Monuments Act 1953. The site's designation as a conservation area is managed by City of Westminster, the responsible authority for preservation and enhancement of this conservation area.[333] The City Council carried out an audit of the space in 2003. This document outlines those features which are of historic significance and should be protected, or those features which detract from the cultural heritage significance of the place.[334] Notably, the conservation area in this case extends beyond the Trafalgar Square boundary, encompassing adjacent streets and open area in all directions including parts of Strand, Whitehall, The Mall and Charing Cross Road. Elements that contribute to the area's significant character include views; architectural character of surrounding buildings; railings and enclosures; public art such as statues and monuments; street furniture; and groundscapes.[335]

5.2.2 Threat Environment

Relevant security threats in Trafalgar Square include person to person violence, attacks on property and terror threats. International and internal threats to UK security are monitored and managed by MI5 Security Service. MI5 describes three types of threats – terrorism, espionage and cyber – that it monitors; terrorism is the only relevant threat for this study. MI5 describes terrorism thus: "Terrorist groups use violence and threats of violence to publicise their causes and as a means to achieve their goals. They often aim to influence or exert pressure on governments and government policies but reject democratic processes, or even democracy itself."[336]

Within this definition of terrorism, MI5 identifies three types of threat – international terrorism, Northern-Ireland terrorism, and domestic extremism. Threats from these sources are described on a five-level scale – low, moderate, substantial, severe and critical. London also has a notable history of separatist and anti-colonial violence such as that enacted by the Irish republican movement. As discussed, the UK's historical experience of terror attacks and security threats is substantial and extensive. Several terror events occurred in London during and immediately surrounding the data

[332] "Trafalgar Square," (Historic England, 2003).
[333] Planning, "Trafalgar Square Conservation Area Audit."
[334] Ibid.
[335] Ibid.
[336] MI5, "Threat Levels," https://www.mi5.gov.uk/threat-levels.

collection and site visit portion of this study. These events affected the security environment of Trafalgar Square, and more broadly London and the UK, during the site visit in 2017 even though none of them occurred at Trafalgar Square. On March 22 a hostile vehicle and stabbing attack occurred at Westminster Bridge in London perpetrated by a lone actor. There were four deaths, including the perpetrator, and 50 people were injured. Two months later, on May 22, a bomb exploded outside Manchester Arena killing 22 people including the bomber. On June 3, there was a double attack at London Bridge and nearby Borough Market, in central London. The perpetrators drove a van into pedestrians on the bridge before stabbing individuals at the market. Eight people were killed and 40 more were injured. Several days later, on June 19 a van was driven into pedestrians outside a mosque in Finsbury Park killing one and injuring 11 more. Finally, on September 15 a bomb was detonated on an underground train at Parsons Green station injuring 25 people. It is clear from this that the UK, and London specifically, is a high-risk environment. Public spaces and infrastructure have come under threat from individuals and small groups carrying out various low-tech attacks using vehicles, knives and home-made bombs. Attacks have occurred at places of mass gathering – a sports arena, train station, and popular nightlife areas. While no attacks occurred at Trafalgar Square, the site must be considered high risk as a PMG within central London. Effects of these events on the security measures in place at Trafalgar Square are further discussed in Chapter 4. Other security threats in recent years include a thwarted bomb plot in 2007.[337] And the transport bombings of 7 July 2005, the murder of Lee Rigby in 2013, and the Leytonstone train station stabbings of 2015.[338]

5.3 Fieldwork Results

This following section introduces the spatial observation data collected during the fieldwork site visits. This data is presented and discussed in the same manner as described for Federation Square at section 4.3, above. A descriptive account of the fieldwork process is followed by an examination of the security measures and their operation as objects in space and time.

Trafalgar Square is the smallest of the three case study sites at approximately 1.2 hectares. The square site can be broken into two distinct areas – the North Terrace, between the National Gallery to the central steps; and the main body of the Square between the central stairs to the roadway in the south. There is a natural slope to the site which is higher at the northern end, in front of the National Gallery than the south. The main body of the Square, however, is carved out of the topography, and flat. The

[337] National Consortium for the Study of Terrorism and Responses to Terrorism (START). (2016). Global Terrorism Database [Data file]. Retrieved from https://www.start.umd.edu/gtd. Incident Summary http://www.start.umd.edu/gtd/search/IncidentSummary.aspx?gtdid=200706290005

[338] National Consortium for the Study of Terrorism and Responses to Terrorism (START). (2016). Global Terrorism Database [Data file]. Retrieved from https://www.start.umd.edu/gtd

roads to the east and west and the northern boundary are higher than the body of the Square, with only the south boundary and North Terrace at grade. The main body of the Square connects to the North Terrace area via three sets of stairs located roughly two thirds to three quarters of its depth towards the north. The site is, overall, a highly organised and regimented space, with rigid lines of pavement and fittings, orthogonal geometry and balanced symmetry. The pedetrianisation of the North Terrace has, in some ways, undermined the clarity of this regular and orthogonal vision by altering the geometry of the site. Generally, the renovation has been sensitively designed and is respectful of the original design vision, improving its pedestrian accessibility and connection to the Natioanl Gallery. In particular, the central staircase, while it forced a large opening in the original boundary, complements the side access stairs at the east and west and reinforces the axial symmetry of the space, centred on the Column. There are four statue plinths at the corner axes of the site, each one featuring a staute of a significant military leader, complementing the identity of the site as a memorial of national military pride.



Figure 5.14: Trafalgar Sqaure, viewed from the north. Source: https://www.london.gov.uk/about-us/our-building-and-squares/trafalgar-square.

5.3.1 Site Visits

Seven site visits were conducted in May and June of 2017 covering weekends, weekdays, public holidays, evening and daytime, and during planned events / programme in the site. Observations revealed the site to be highly controlled but still very accessible. Events in the site were highly controlled and monitored by police and emergency services, it is clear the events were not

spontaneous eruptions of crowd behaviour but were coordinated with the knowledge, permission and assistance of the police.

Visit 1: Thursday May 25. 12:00

It should be noted that three days prior to this visit, the UK Government raised the terror threat level to 'critical', the highest level meaning that an attack is expected imminently, as a response to the Manchester Arena bombing. During the site visit I witnessed two police officers moving through the site who were heavily armed with visible weapons and defensive uniforms (helmets, bulletproof vests). These officers were an unusual sight and represented a militarisation of the civilian police force as a direct result of the heightened terror threat level. The threat level was lowered to 'severe', meaning an attack is highly likely, the following day and with that there was a return to patrols by regular police. As well as the militarised police, I observed two regular police officers observing the site from a stationary, elevated position at the east boundary. There was some maintenance work going on within the Square, to the east of Nelson's Column, and a small area of the site was fenced off for this purpose however it is not related to security although it is a type of control measure. The space presented as heavily controlled – several large signboards advised that CCTV was in use throughout the space (although the locations of the cameras was not immediately obvious), police were highly visible, and the Trafalgar Square bylaws were visibly posted within the space.

Visit 2: Friday May 26. 16:30

The North Terrace serves as a designated busking and street performance area and the performers attracted sizeable audiences. Heritage Wardens are visibly present in the site but have not been observed to enforce any behaviour rules. There is an active and visible police presence patrolling the space.

Visit 3: Sunday May 28. 13:30

There is a less visible police presence with no officers observed over a two-hour period. I witnessed a Heritage Warden actively enforcing rules by telling visitors (adults and children alike) not to climb on the lion sculptures. The Heritage Wardens have whistles to attract attention but most people seemed to wait until they were not being watched and climbed back onto the sculptures.

Visit 4: Monday May 29. 10:30

It was a Bank Holiday (public holiday) and the London 10,000 charity running event was on with the course travelling on some surrounding streets. The site remained open to the public despite some roads being closed. Later, a large but controlled rally, protesting against fox hunting, marched by the

site, moving down the west boundary, across the south of the site and away towards Parliament via Whitehall street. The group was preceded by police officers, vehicles and temporary barriers installed from the back of a moving lorry. Police officers were dispersed within the protest group and there were upwards of 10 vehicles (vans, cars and motorcycles) following the group. Although it did not pass through the boundary of the case study site, the demonstration came into proximity and the associated police presence was felt within the Square, demonstrating to users the level of monitoring and controlling power that police exercise.

Visit 5: Tuesday May 30. 08:50

The space is very quiet, there are only a handful of people in the site with most people in the space moving through it to and using it as route to get elsewhere. The Square has the atmosphere of an island within the busy traffic on surrounding streets. Signboards advising of CCTV and rules about climbing the lions and not feeding the pigeons are out and highly visible in the site, having been brought out earlier for the morning peak. I observed an unexpected control measure – a falconer with his bird, employed to deter pigeons from occupying the space. A control measure complemented by the advertised spatial rule not to feed the pigeons. It is indirectly related to security due to the pigeons possibly posing a health risk. The site remained quiet until buskers began performing around 10:00. No police were observed within the Square over a nearly three-hour period, although police vehicles and personnel were observed in the streets surrounding the site.

Visit 6: Sunday June 4. 16:00

Two events had a large impact on activity within the Square during this site visit. Firstly, the night before, the London Bridge and Borough Market terror attacks were carried out. Secondly, Trafalgar Square was occupied for a large demonstration in remembrance of the 1984 Sikh Genocide. These two events help explain an unusually high number of police in the Square and a relatively low number of general visitors. In contrast to the police response after the Manchester Arena bombing, there was no militarised police presence in the Square. As the nation's overall terror threat level was not raised to critical, there was no justification for military to come under civilian police control. Nevertheless, there was a very large number of police officers within the square and support vehicles in nearby streets.

Trafalgar Square can be 'hired' for events, such as the Sikh Genocide demonstration which was clearly well organised, managed and controlled. A large stage and supporting audio-visual equipment was set up in the area immediately to the north of Nelson's Column, facing the National Gallery.

It is unclear if the increased police presence was a response to the terror attack of the night before, or because of the potentially volatile remembrance event in the Square. It may have been a combination of the two. There were five officers observed wearing a specially marked 'community liaison' uniform who were likely deployed for the remembrance demonstration. Similarly, it is unclear if the lower than usual number of tourists and recreational visitors in the Square was related to people's fears of possible further attacks and a desire to remain away from crowded PMGs; or if people felt the space was 'occupied' by the Sikh event and therefore not open to others.

Visit 7: Monday June 5. 15:30

The Square was not very busy, and there were fewer buskers than seen during other visits. No police were observed within the Square although police vehicles were present in the surrounding streets.

5.3.2 Security Measures

Measurement Tool

Feature	*Level*	*Criteria*
Panoptic Devices		
CCTV	L	None present
	M	One camera
	H	**Two or more cameras**
Private security personnel	**L**	**None present**
	M	One guard
	H	**Two or more guards and/or vehicle**
Police presence	L	None present
	M	Two officers
	H	**Three or more officers and/or vehicle and/or station**
Ease of passive surveillance	L	No provision for dwelling and observing space
	M	Part of the space is easily observable from some vantage points
	H	**The whole space is easily visible**
Regulatory Procedures		
Visible rules	L	None present
	M	One visible sign / posting of local or special rules
	H	**Two or more visible signs/postings of local or special rules**
Enforced rules	L	Local regulations, enforced by police
	M	Local regulations, visibly enforced by police and private security
	H	**Special regulation, visibly enforced by police and private security**
Behaviour rules implied by design	**L**	**None present**
	M	One or two examples
	H	Several obvious examples throughout space
Site branding	L	Site has no naming or representational branding
	M	Site has naming or representational branding but not both
	H	**Branding through naming and representational measures**

Fortress Measures		
Physical access	L	No barriers or gates and access is visible and easy
	M	**No barriers or gates but access not highly visible and/or easy. Or, highly visible access but with gates or barriers**
	H	Barriers and gates, access not visible and/or easy
Segregation	L	No areas of conditional use
	M	**One area restricted to certain people or uses**
	H	Two or more (or one large) area of restricted access and use
Hours of operation	**L**	**Open 24 hours, 7 days including holidays**
	M	Partly open past business hours and/or on weekends
	H	Open only during business hours
Privatisation	**L**	**Publicly owned, publicly managed**
	M	Publicly owned, privately managed
	H	Privately owned, privately managed

5.3.3 Panoptic Devices

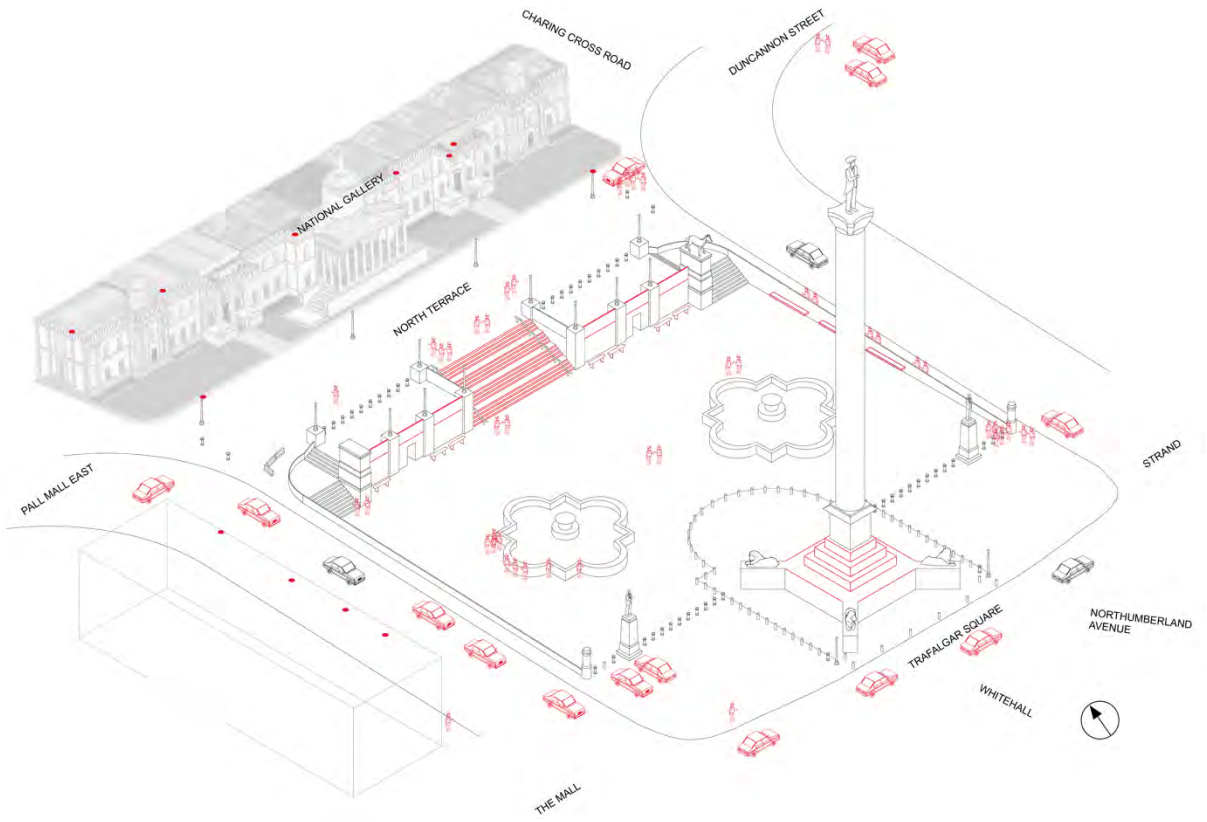


Figure 5.15: Diagram of panoptic devices.

Presence of CCTV

Only one CCTV camera was observed within the site, however there were several cameras around the site boundaries attached to surrounding buildings such as the National Gallery. The difficulty of this situation for this study is that it was not possible to determine through observation exactly what those

cameras were looking at. Furthermore, it is likely that cameras attached to buildings primarily provide surveillance for those buildings rather than for Trafalgar Square. While it was not possible to be certain which cameras were observing Trafalgar Square, it is certain that the space is under CCTV surveillance due to the signboards advertising CCTV in use and the UK's approach to surveillance generally.



Figure 5.16: Left – CCTV camera within the site. Right – signboard advising that CCTV is in use.

Private security personnel

No private contracted security personnel were observed in the space. There was privately contracted cleaning staff (Veolia) and council employed maintenance staff. Site-specific Heritage Wardens operate at Trafalgar Square all hours of every day and are clearly identifiable by a uniform, hat and a whistle (Figure 5.17). The Heritage Wardens at the site, although under the control of the Greater London Authority and the Mayor of London, are for the purposes of this study considered to be private security personnel. The staff are provided to the GLA by AOS and act at Trafalgar and Parliament Squares. Their role is site specific, their authority is limited, and they are a form of contracted control. In this way, they function in the same way as private security personnel but they are publicly funded and employed. The Heritage Wardens' role is to protect sites of significant historical or national importance from the aberrant behaviour of individuals. Despite signs in the area advising that it is prohibited many people attempt to climb onto the lions for photos. Heritage Wardens blow their whistles to gain the attention of these people and signal to them that they must get down off the Lions and that climbing the Lion statues is not permitted. It is not clear what other role the Heritage Wardens perform within Trafalgar Square although AOS Security Services provided training to 'upskill' the Heritage Wardens in 2011.



Figure 5.17: Two uniformed heritage wardens

Police presence

Police were observed in the site during most site visits, and if they were not in the Square they were present in surrounding streets. Police officers were observed within the site, usually moving through the space in pairs. Police vehicles were observed either within the space or its immediate context. Indeed, Trafalgar Square was notable amongst the case study sites for the high number of police officers in the nearby area, deployed in such a way that they appeared to be at the ready for potential threats to emerge in any of the important and high-profile places near Trafalgar Square. So, even if no police were observed within the boundaries of Trafalgar Square itself, police would remain an active presence at the site due to their being in proximity and able to attend the space very quickly to respond to threats.





Figure 5.18: Left – police officers walking in pairs through the spaces. Right – police officers, and several police vehicles in the site during the Sikh Genocide rally. Community Liaison officers in blue uniforms are indicated in red.

Passive Surveillance

There are multiple opportunities for passive surveillance of Trafalgar Square. As with the other case study sites Trafalgar Square is sited on a natural slope; the topography of the site provides vantage points from which the bulk of the site may be viewed. The base of Nelson's Column can be, and is, occupied by people sitting and watching the space. Several layers of passive surveillance are afforded along the east and west boundaries. There are bench seats along the east and west boundary walls and at the north next to the café and the toilets, encouraging people to sit and dwell in the space facing into the centre. This ring of seating provides an audience looking into the site from three directions. Just outside the boundary wall the street rises to the north while the Square remains flat below. The street provides a regular flow of pedestrians passing the site with the low separating wall allowing them a clear, unimpeded view of the site and a place to sit if they choose to dwell. The road provides constant flows of observers in private vehicles, taxis, cycles, and buses. There is a public bus stop at the east boundary, further increasing the volume of potential site observers as those waiting for the bus observe activities and events in the space. The north boundary of the site provides the most numerous and effective opportunities for passive surveillance. The North Terrace sits at a higher level than the body of the Square, with a stone fence providing an ideal place to observe the Square below. The three sets of stairs down into the Square at each end in the centre were frequently occupied by visitors seeking rest and shelter, as the seating within the Square was inadequate for the number of visitors. Anyone sitting on the stairs faces the body of the site in an amphitheatre type tier of people observing the site. The best view into the Square is from outside the site at the National Gallery's front balcony. The Gallery is free to enter and is a very popular tourist attraction; the balcony (which serves as an alternative entrance / exit) is a popular place to take in a view of Trafalgar Square as well as other landmarks in the distance.



Figure 5.19: The central steps provide ample seating from which to observe the site.

5.2.4 Regulatory Procedures

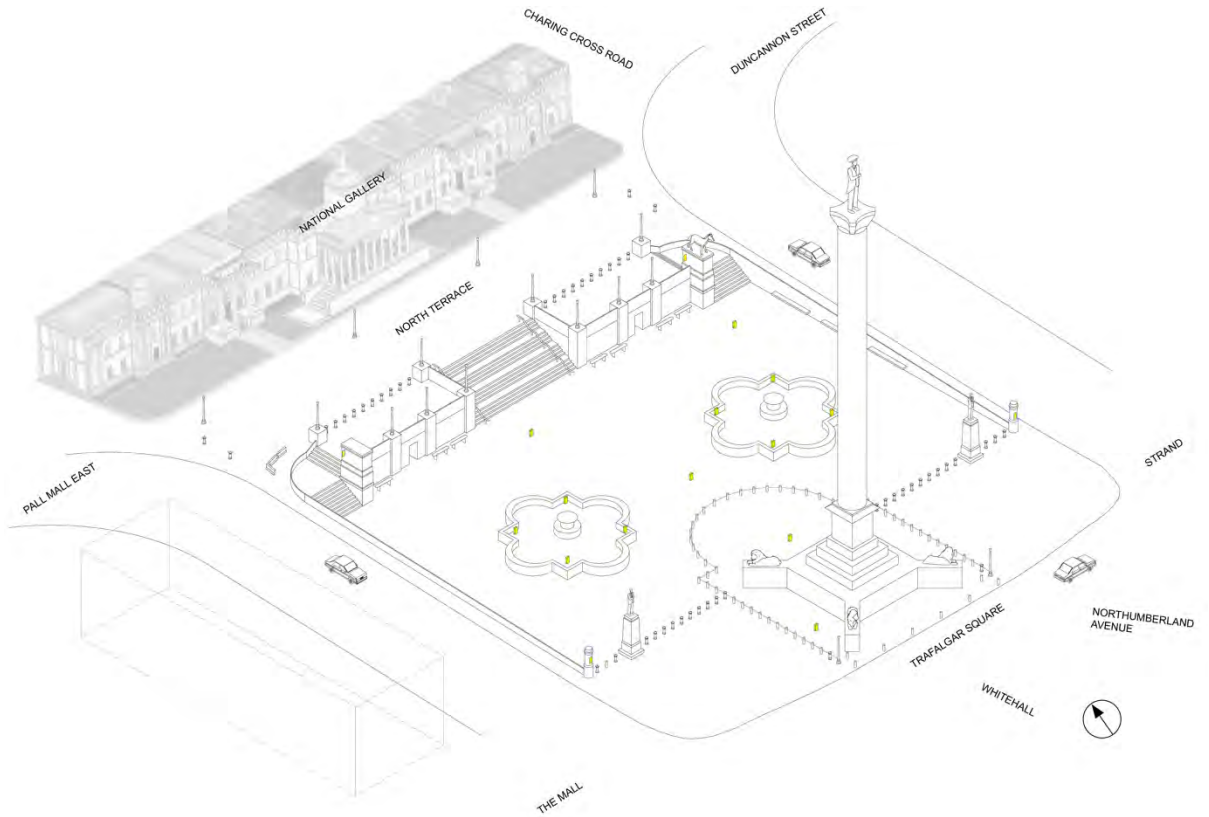


Figure 5.20: Diagram of regulatory procedures in yellow.

Visible rules about behaviour

There was a high level of visibility of behaviour rule in the site. As discussed above, freestanding signs advise visitors that they are not permitted to climb onto the Lion sculptures. Similarly, there are signboards stating a ban on feeding pigeons in the Square. Notably, the signboards are not branded or attributable to any authority. Unlike the frequent flouting of the ban on climbing the Lions I did not observe anyone feeding, or attempting to feed the pigeons. Both fountains had within them signs stating that people are not allowed to swim or otherwise enter the water in the fountains. These rules are site-specific. Other site-specific and municipal level regulations are posted at four locations within the Square. At the staircases at the northeast and northwest the Trafalgar Square byelaws are posted by the GLA. At the stone plinths within the boundary walls at the southeast and southwest are licensed premises information posted by the City of Westminster. There are several levels of behaviour rules and regulations that apply to the site and they are well advertised for visitors, although the posting of Acts in display cases is not likely to make them highly visible to the average visitor or anyone who does not have a competent grasp of English.



Figure 5.21: Left – Site bylaws posted within the site. Right – signboard advising the public not to climb onto the lion sculptures

Behaviour rules actively enforced

The only behaviour rule that I observed being actively enforced was the advice not to climb the Lion sculptures. This behaviour rule was, as discussed above, enforced by the Heritage Wardens. While I observed Police within the Square I did not observe them actively controlling people's behaviour inside the site. However, people generally adhered to behaviour rules so the lack of enforcement is likely because the rules were not flouted, rather than reflecting a lax approach towards enforcement. It is possible also that the visibility of the rules and the obvious and active presence of police creates a situation wherein visitors self-censor, or police their own behaviour. The visible threat of

punishment for transgression, and forewarning of what behaviours would constitute a transgression, is a powerful behaviour moderator.



Figure 5.22: Children actively ignoring the advice not to climb on the Lion sculptures

Behaviour rules implied by design

This control measure was not highly present at Trafalgar Square. It is not a very complex space; the design is a basic, open square containing some elements. The ability of the spatial design to imply or suggest what behaviours may or may not be permitted is limited. There is not, for example, anti-skateboarding metal strips of the type that are seen at Federation Square. Indeed, certain transgressive behaviours that could be prevented through spatial design alterations are not – for example, bathing in the fountains would be made impossible if the edges of the fountains were made difficult to climb. Also, a fence or barrier along the stone plinths of Nelson's Column would prevent access to the Lion sculptures, precluding anyone from actively climbing them. It is feasible that the lack of control through design measures relates to the age of the site. When it was constructed, the idea of people climbing sculptures or jumping into fountains may have been unfathomable to the designers.

Site branding

Trafalgar Square is branded and performs a representative function in several ways. Firstly, and most obviously, in the naming of the site after Britain's 1805 victory at the Battle of Trafalgar. The victory can be seen to reinforce a sense of British national pride. The branding of the site is an active, public presentation of a preferred image of the nation and the source of its power at that time. Branding is through the naming of the place, its prominent siting, and some decorative sculptural elements. Nelson's Column memorialises the leader of the British Navy at the battle of Trafalgar – Admiral Lord Horatio Nelson – and is therefore not only a monument to victory but also a memorial to a national martyr.



Figure 5.23: Lion and relief sculptures at the base of Nelson's Column. The lion is a heraldic symbol for Britain and the reliefs show events during the Battle of Trafalgar.

5.2.5 Fortress measures

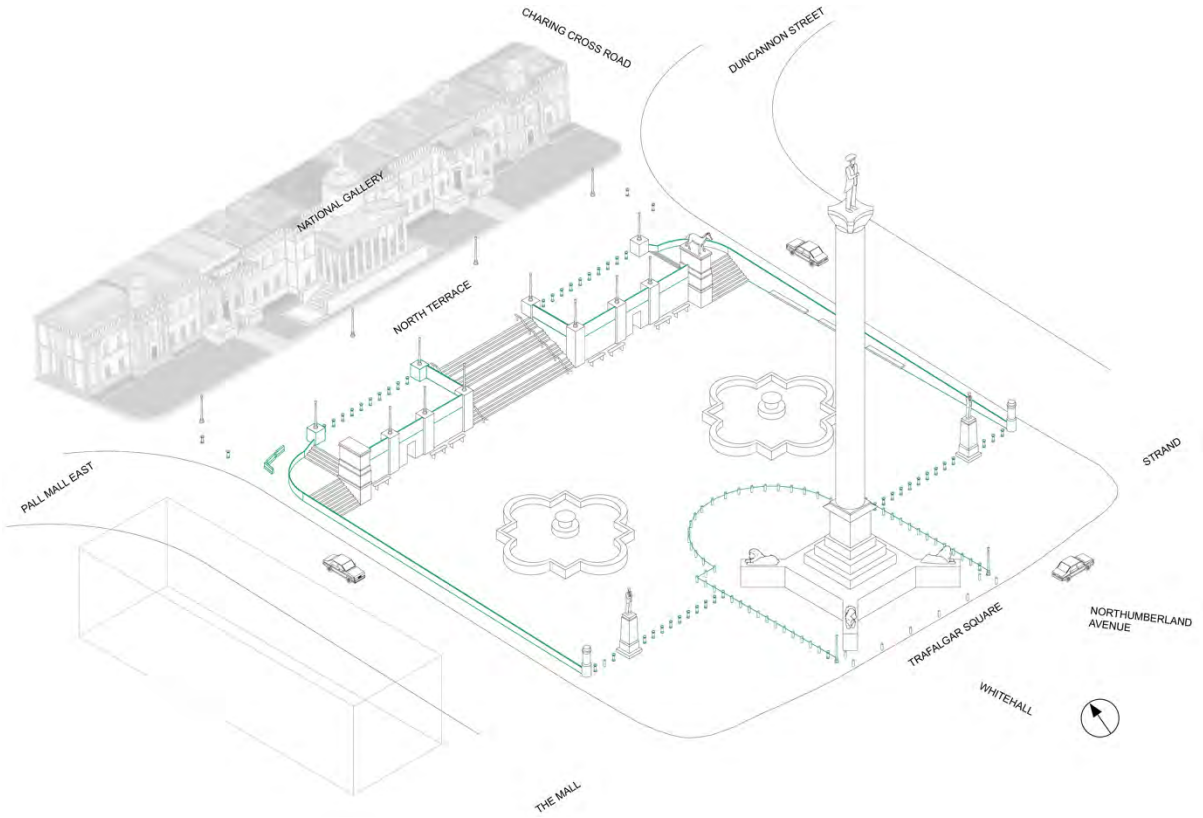


Figure 5.24: Diagram of fortress measures, in green.

Physical access

There is a medium level of control of physical access to the site. The entire site boundary is highly permeable, certainly to pedestrians, and there are multiple entry points. Entrances are visible and there is no concealment of site access. Stairs down from the North Terrace provide clear visual and physical access to the main body of the Square and lifts at two places provide access to those with mobility difficulties or with prams, trolleys etc. These lifts were installed as part of the recent pedestrianisation scheme. To the north, the site boundary is not clearly defined as it blends in with the forecourt / entry areas of the National Gallery and the footpaths of surrounding streets. The space of the Square bleeds out into the surrounding area in a way that is welcoming to pedestrians who find themselves seamlessly merging into the Trafalgar Square boundary at the North Terrace. The North Terrace is permeable because it was, until recently, a roadway and as such did not form part of original designs for the site and the boundary fortification and access strategy. At the eastern and western edges of the North Terrace there are two large stone bollards separating the open space and the street. These bollards, while solid and likely able to perform a defensive function, are few and spaced apart in such a way that they fail to perform adequately as hostile vehicle management. A vehicle would be able to gain access to the upper terrace area from these points in the boundary. There are

three types of bollard at Trafalgar Square. The large concrete bollards, as mentioned; smaller, fixed iron bollards with are sometimes connected to each other by a metal bar to form a fence; and removable metal bollards. Removable bollards serve a preventative and a responsive function – they prevent unwanted vehicle access to the space but when removed they open the space to allow emergency services vehicles to respond to threats within the space.



Figure 5.25: Left – large concrete bollards and the designated car parking area. Right – smaller iron bollards, one of which has been removed.

Segregation

Segregation within Trafalgar Square is limited but was observed in four forms. Firstly, the café has commandeered all the seating along the north-east boundary for exclusive use by its customers. This is a similar situation to Federation Square where private businesses operating at the edge of the public space can create segregated enclaves available to those who can pay. The toilets are open from 09:00 until 20:00 and there is a charge of 20p to use them (the disabled toilet is free of charge). This facility is segregated according to both time and payment, and then further by gender and disability status.

Secondly, at the south west corner of the site there is a vehicle parking area, only available to service vehicles or for workers involved in maintenance or conservation within the Square. One of these spaces is reserved for emergency services vehicles. This segregated space is responsive and ensures emergency services can easily access the site to respond to threats. The third form of segregation is buskers. Busking and street performance are legal in public spaces in London, but at Trafalgar Square it is segregated to the North Terrace and are not found within the main body of the square.

Finally, the Square can be 'hired' for events such as protests, memorials or group celebrations. This was observed once, for the 1984 Sikh Genocide memorial demonstration. The site remained open and accessible to all other members of the public who may not have been involved in or interested in the event for the Sikh Genocide. However, the area at the base of Nelson's Column, within the ring of

steel bollards, was roped off and occupied by vehicles and members of the group organising the memorial rally. The space, while still technically open to all, became 'occupied' in a sense by the Sikh group. This is an example of the Square taking on an identity, or being imbued with a certain meaning due to the activities and the people who are occupying it. The fact that the Square can be, and is, hired out to groups means that those events can be authorised, controlled and managed by the police, the GLA and the City of Westminster. Protestors and users of the space must conform to the behaviour rules imposed on them by authorities. On the other hand, protests that pass by the site, such as the observed anti-fox hunting event that I observed, can take advantage (if briefly) of the visibility and prominence afforded by Trafalgar Square without needing to conform their protest event to the site-specific rules.



Figure 5.26: Left – area segregated for maintenance. Right – the stage and screen set up for the Sikh Genocide memorial rally.

Hours of operation

Trafalgar Square is never closed although a section of its areas was partially sectioned off for maintenance. Works are carried out while the space remains open to the public as far as possible. Hours of operation are not an active controlling measure at the site and perform no security function at the space. The only area of the site that has defined hours of operation is the café which operates daily 09:00-18:00, and the toilets which are open from 09:00 to 20:00. Opening hours have a preventative and preemptive function but do very little to respond to threats.

Privatisation

Trafalgar Square is publicly owned, managed and operated; privatisation is not used at this site as a controlling security measure.

5.4 Analysis of Control Measures

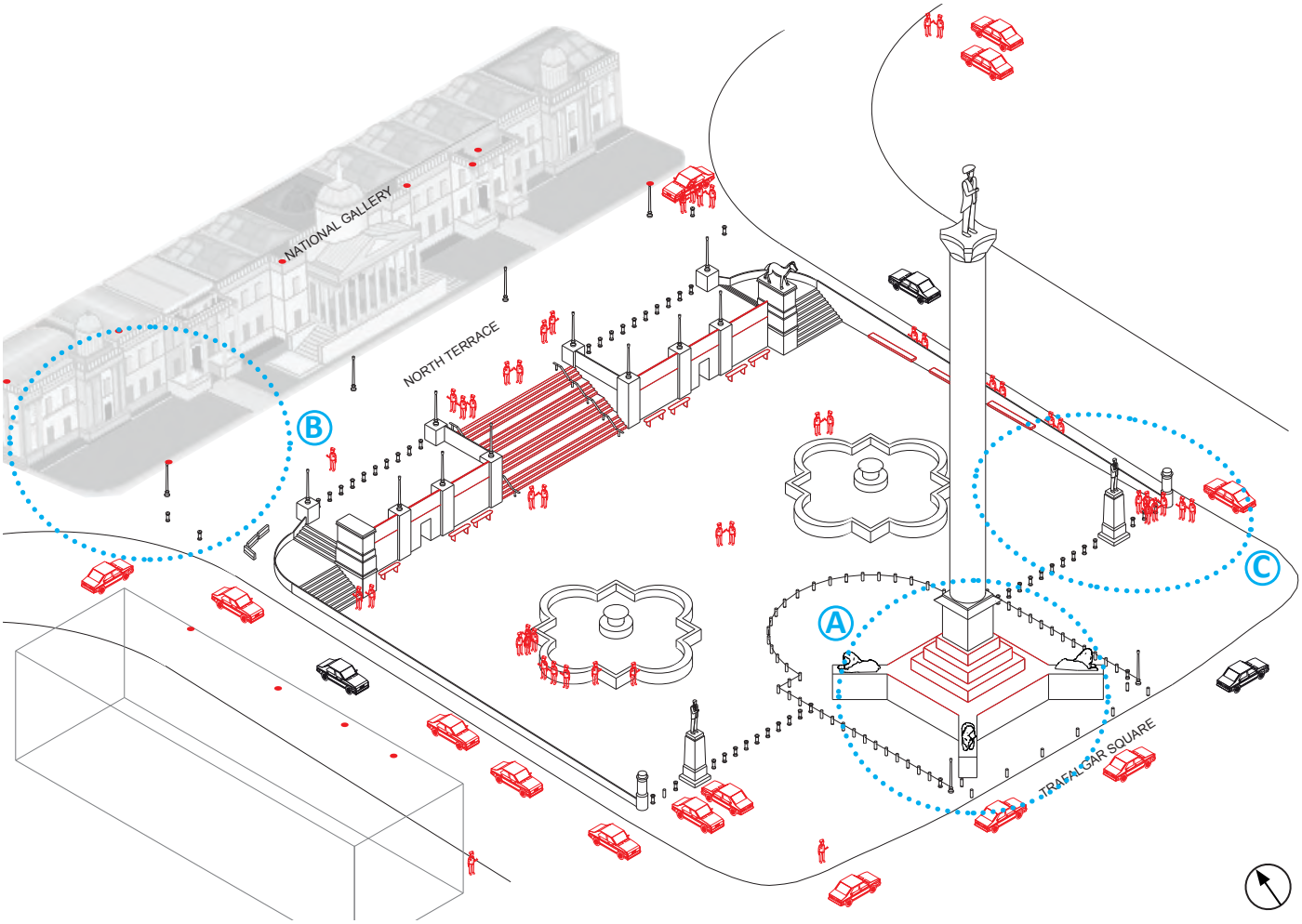
The following section reviews the operation and effects of each of the controlling security measures. This is achieved through a close reading of small, sub-spaces within the Square with the use of diagrammatic maps – as established in the previous chapter. It is noted that each security measure forms part of a wider armature of power relationships, supported by built form.

5.4.1 Panoptic Devices

Trafalgar Square is highly surveilled in several different ways. There is active surveillance with police officers and Heritage Wardens, and passive surveillance by the general public is encouraged. Trafalgar Square is not very large, compared with the other sites, and it is possible to see the entire site from almost any point. This openness benefits active surveillance efforts by authorities, and it also means that passive surveillance saturates the site. Major roads encircle the site on three sides with private vehicles and public buses; while visitors to the National Gallery to the north can overlook the Square via several balconies. In contrast to the other two sites, Trafalgar Square is visibly under surveillance from cameras and police located outside the site's boundaries. Surveillance here is part of a much wider network that operates throughout London however, it is discussed in this section in terms of how it operates and mediates behaviour within the specified study area.

Area A

The base of Nelson's Column consists of three large stone steps. They are not designed for people to sit on, the first step is about shoulder height so people must clamber and climb up in order to sit on the stepped base. Nevertheless, there are almost always people sitting on the stepped base of the Column, around all four sides. The elevated position from the stepped base provides an excellent vantage across the site to the north, east and west, and to the south down Whitehall towards Parliament and the River Thames. Considering the specific rules related to the Lion statues and the fountains, it is unexpected that there are no similar restrictions applied to the Column base. The height of the steps presents a public safety risk similar to the Lions and yet there is no attempt to dissuade people from climbing up. Climbing and sitting on the column base would also seem to be an inappropriate behaviour for a memorial. It is possible that the bronze lions are more fragile than the stone base, or that there is a recognised security benefit from the additional passive surveillance. The potential of the column base to support passive surveillance is an unintended outcome that has been accepted, or even embraced, by responsible authorities for Trafalgar Square.



PANOPTIC DEVICES AT TRAFLGAR SQUARE

- Police Officers - multiple officers at all times, moving through the site
- Police Liaison Officers - 10 officers, observed on one occasion
- Military working under Police command - 2 personnel, circulating the site, seen on one occasion
- Police vehicles - 3 parked on site, in two areas. Multiple vehicles surrounding the site and nearby area
- CCTV cameras - 2 within the site, 10 visible just outside the perimeter of the site
- Provision for passive surveillance - throughout, concentrated in two areas



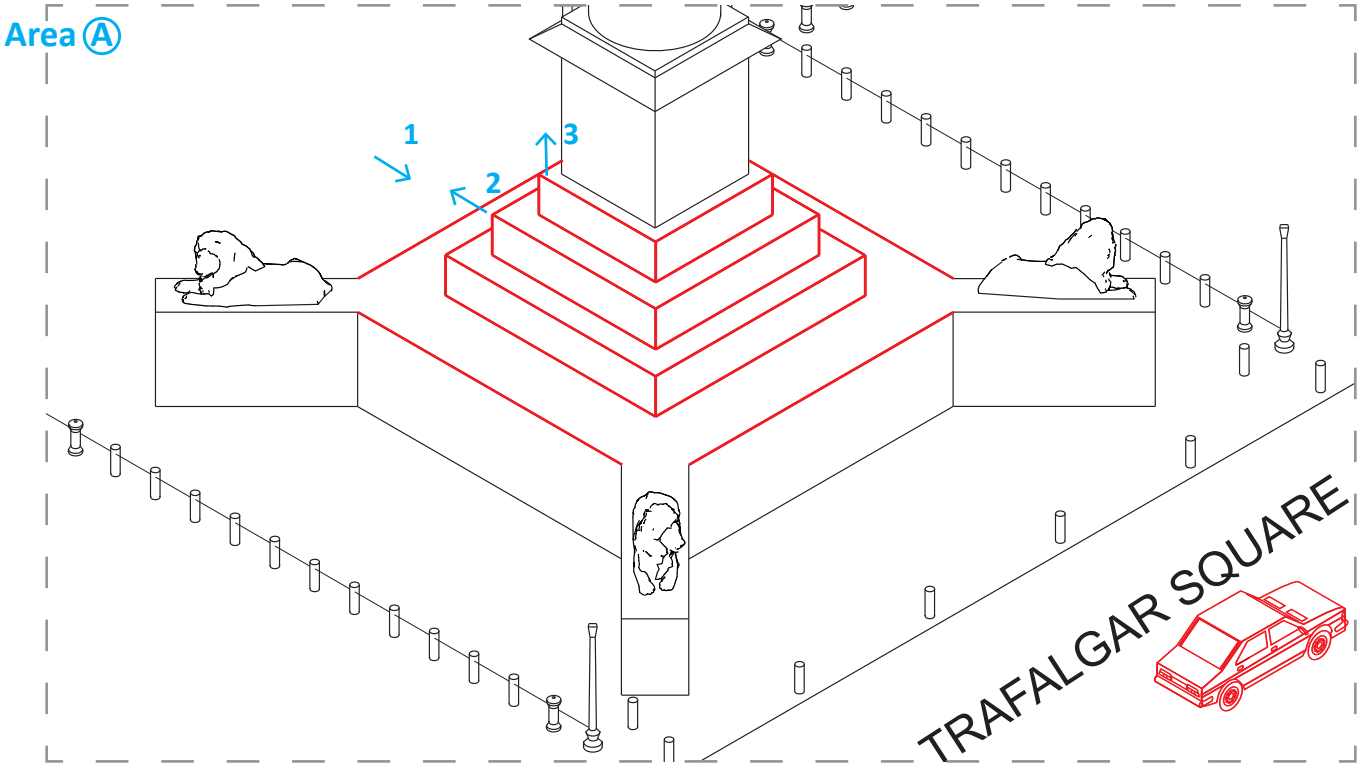












DETAIL VIEW: PANOPTIC DEVICES



1: The base of Nelson's Column provides three levels of places to sit and watch goings on in the Square.



2: The view looking north when seated at the base of Nelson's Column includes almost the entire Square area, it is ideal for passive surveillance.



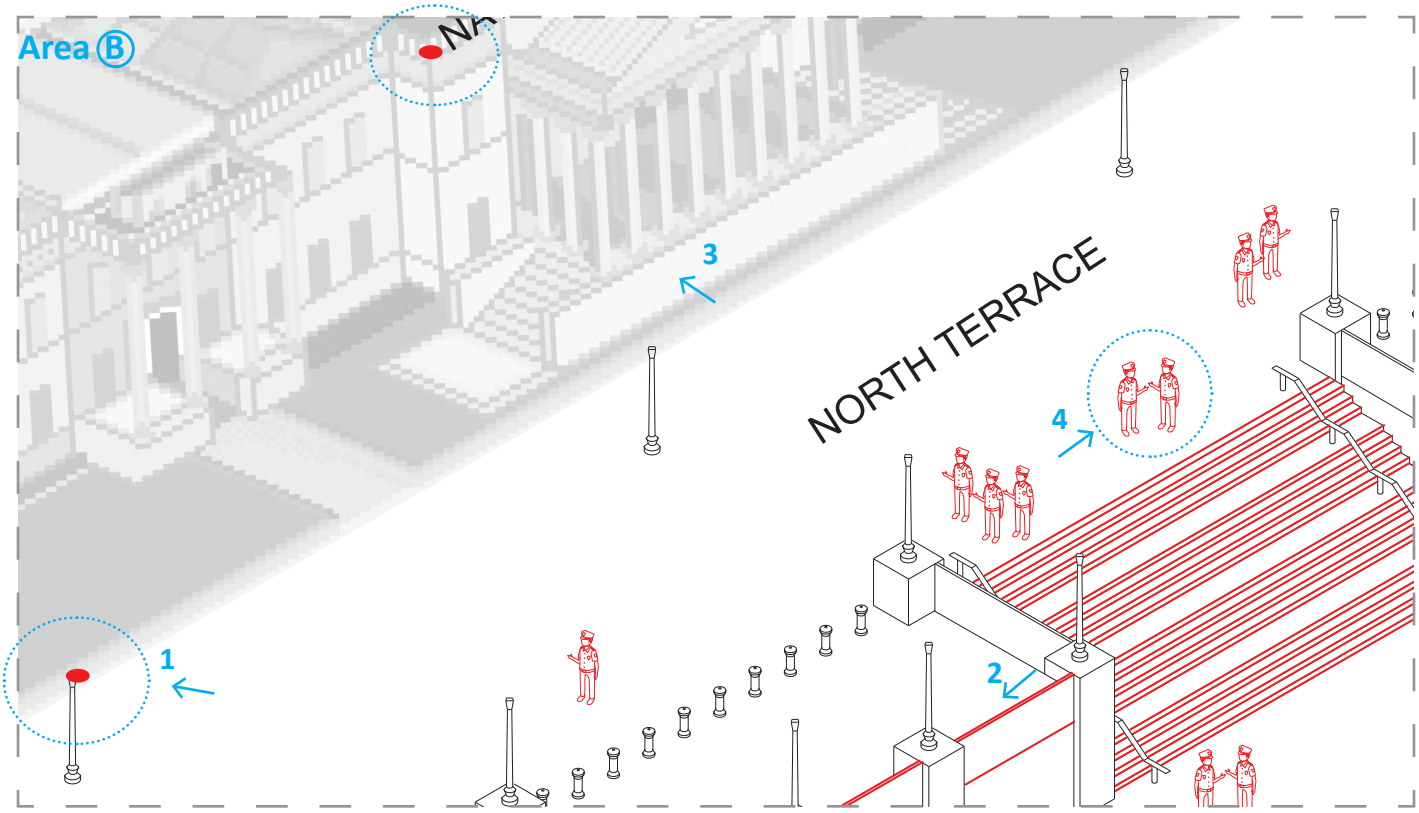
3: View looking north-east from the base of Nelson's Column towards St Martin-in-the-Fields church.

Area B

The highest concentration of CCTV cameras is found at the northern boundary of the site. There are two cameras located at high level on light posts at the east and west ends of the North Terrace. These are the only CCTV cameras observed within the perimeter of the site. There are, however, several CCTV cameras positioned on the roof of the National Gallery overlooking Trafalgar Square. There are also cameras evident on the roof of the Canadian High Commission building (Canada House) opposite the site to the west, although it is not evident if these cameras are focused on the Square, on Canada House, or a combination. It is also probable that there are further cameras observing the site that are not visible. Digital surveillance is a recent (late twentieth century) addition to the site, and there are few appropriate places to discreetly retrofit this equipment. There are several lamp posts around the Square but only the very tall posts at the North Terrace have had cameras attached. These lamp posts are sited at the edge of the former roadway and predate the pedestrianisation of the Square – they were not installed to support CCTV. Neighbouring buildings have been conscripted into supporting the retrofitting of CCTV infrastructure to Trafalgar Square. The north west corner of the site demonstrates the existing condition of retrofitted CCTV at the light pole and the roof of the National Gallery.

Digital surveillance infrastructure is supported by active surveillance by police officers patrolling the site, in pairs, throughout the day. Officers walk through the site and are readily identifiable in high vis yellow jackets as part of their uniform. Patrols are random, officers walk throughout the site as required, sometimes stopping to speak with people or observe goings on. While the police are highly visible their route through the site is not, nor is it clear to the general public in what numbers the police will be in the Square. Surveillance by police is obvious but unpredictable. This is a similar situation to digital surveillance. It is advertised the CCTV is in use and some cameras are visible – but it is probable that there are more cameras that cannot be seen. The uncertainty creates a situation where people in the site know they are under surveillance but might not know where from, or how by how many eyes. Surveillance in this way performs two functions: it actively monitors behaviour, and it causes people to self-censor their behaviour *in case* they are being watched. This is an example of control through asymmetrical visibility, which is a type of spatial micro-practice of disciplinary power.[339]

[339] Dovey, *Framing Places: Mediating Power in Built Form*. P21.



DETAIL VIEW: PANOPTIC DEVICES



1: CCTV camera attached to light pole at the west end of the North Terrace. One of only two observed cameras within the boundaries of Trafalgar Square.



2: People observing the main body of the square from the North Terrace retaining wall balustrade area.



3: CCTV cameras observed on the roof of the national gallery, focused towards the Square.

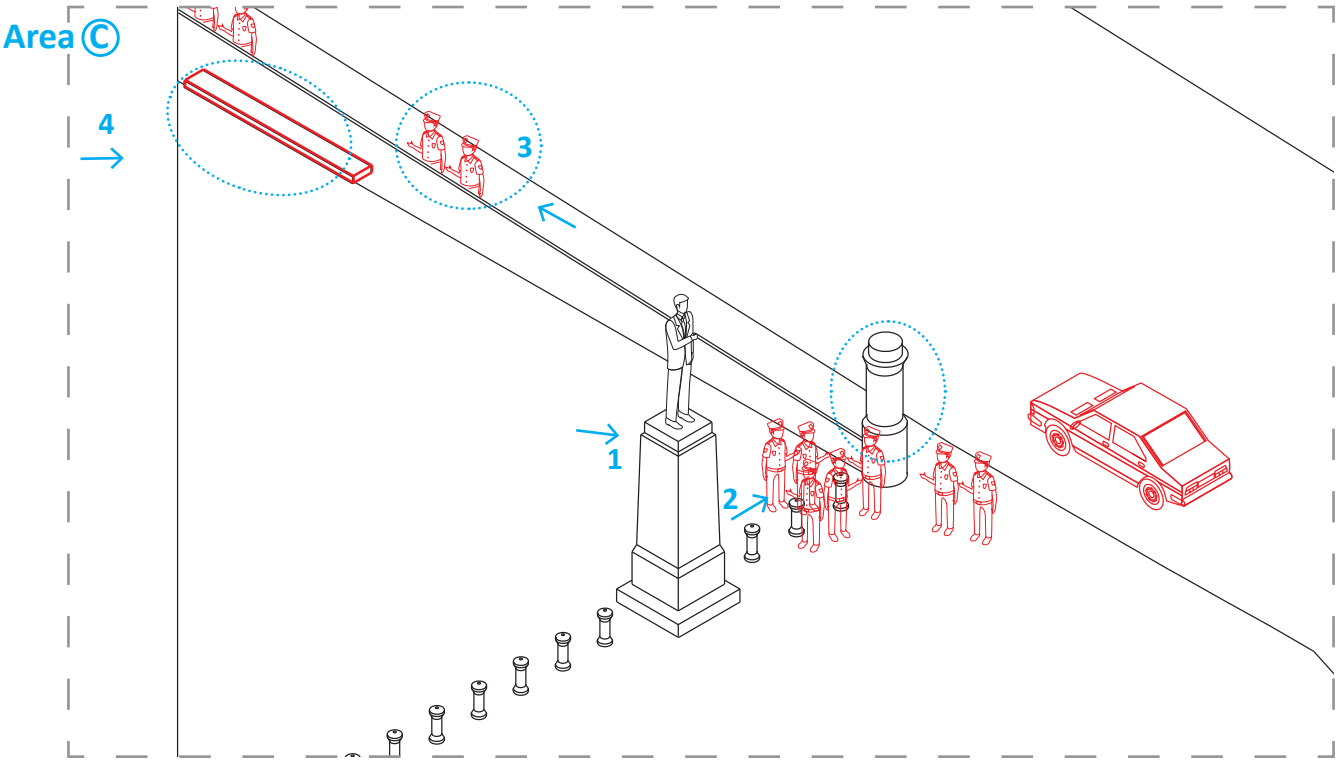


4: Uniformed police officers patrolling the North Terrace. Officers were almost always observed working in pairs.

Area C

At the south east corner of the site there is a concentration of active and passive surveillance. The area in front / south of the statue was occasionally used for police vehicle parking, and there were frequently police officers standing near the police booth, patrolling the southern edge of the site, and standing at the boundary wall overlooking the site. On the inside face of the boundary wall there are three stone benches. These were not part of the original Charles Barry design, but they were installed later during the early twentieth century. The seats are a public amenity firstly, but they also provide for passive surveillance within the site. The seats are paralleled by the footpath outside the boundary wall which, due to the topography around the site, is at a higher level than the seats. The footpath is usually occupied by a flow of people although there are often people who linger and lean against the wall or wait for buses. There are often police officers in this area as it provides a good vantage point to see across the full width of the site. However, it is inconvenient if officers wish to enter the site to respond to a threat incident as it is a closed perimeter. Nevertheless, the state authority that is inherent in the police officer (through their uniform etc) is socially accepted and complied with.[340] Surveillance implies rules, authority and possible force which is internalised in users of the space who adjust their behaviour accordingly. The topography and form of the site encourages both passive and active surveillance – a condition amplified by the addition of stone benches in this area.

[340] Ibid. P14.



DETAIL VIEW: PANOPTIC DEVICES



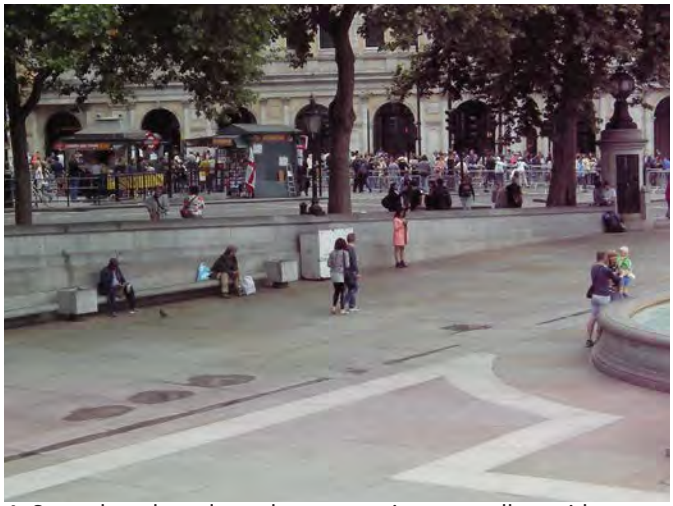
1: Police officers and vehicles stationed at the south-east of the site. The vehicles are prevented from entering the site by the row of bollards and the Henry Havelock statue.



2: The police box - originally intended as a place from which police officers could monitor the Square and be seen doing so. It is no longer in use as such.



3: Uniformed officers stationary and observing the Square and adjacent streetscape from the raised footpath of Charing Cross Road at the east of the site.



4: Stone benches along the east perimeter wall provide opportunities for passive surveillance.

5.4.2 Regulatory Procedures

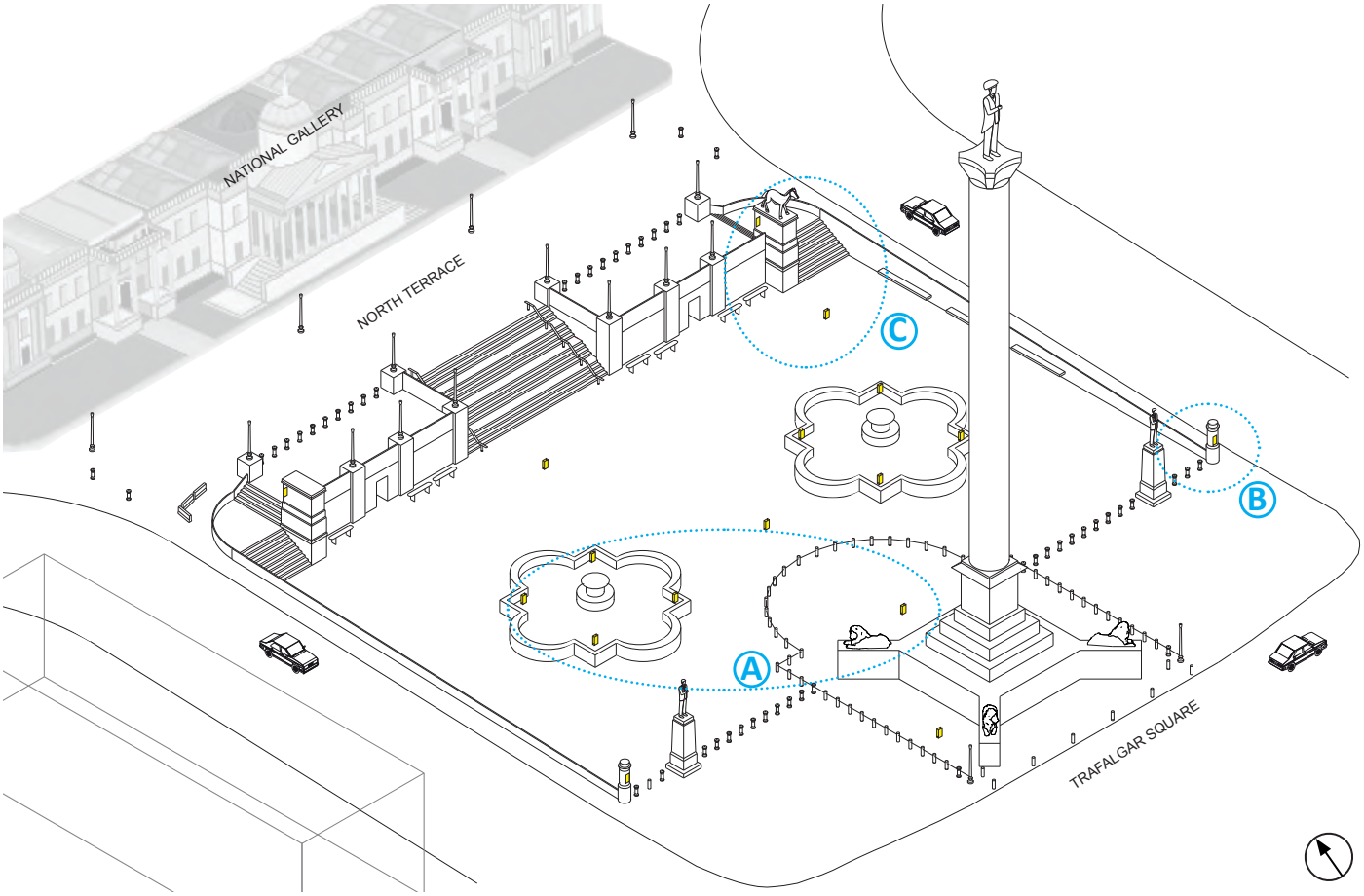
Bryan Lawson notes that rules governing the use of space are found wherever people gather.[341] Rules are sometimes a matter of local convention, but more often they reflect a need in human psyche for order and a system. This helps us to categorise good behaviour from bad behaviour, and understand our place within the order of the space and other users. There are rules and regulations that apply across Trafalgar Square but are not visible – either because they are not actively enforced or because they are not advertised within the space. These include national laws and local regulations applied by the City of Westminster and the Greater London Authority. Rules such as these overlay across the whole site and are not evident as objects or visible strategies. They only become evident when they are actively enforced. Regulatory measures are a difficult category of control measures to map because they are not always physical elements, and there is a lot of overlap particularly with active surveillance methods. The difficulty in mapping regulation is largely because it does not act on the space, but rather it acts on bodies in the space. It is a form of biopower that controls behaviour in *relation* to the space.[342] As such, the following areas of focus will discuss rules and regulations as they are visible as spatial elements or evidently being enforced.

Memory plays a critical part in branding and site identity at Trafalgar Square, more so than the other case study sites. The past is contested, and memory is impacted on by those who get to decide how to memorialise events. This is evident at Trafalgar Square which is entirely conceived as a memorial to the British (victors) view of events at the Battle of Trafalgar. The same battle is remembered elsewhere and by others in different ways. Contention around site identity and the meaning of a lace is heightened when memory is involved. However, memory, in this case, is strong tool to fix place identity. Representations of history and identity are temporal and intertwined with power – or who is able to define and defend history through memorialisation. The past is a strategic tool used by those in power to create an image and manipulate emotions for legitimacy.[343] As Dovey notes, the perception of legitimacy is fragile, and its authority often requires the threat of force for support.[344] The built form and open space of Trafalgar Square is symbolic of State authority and legitimacy. This is further embedded into the built fabric through rituals such as marches, parades and political speeches – including the Coronation Parade of King George VI in 1937. Trafalgar Square is imagery of

[341] Lawson, *The Language of Space*. PP2.
[342] Michel Foucault, *Security, Territory, Population* (Palgrave Macmillan, 2007).
[343] Walkowitz and Knauer, *Memory and the Impact of Political Transformation in Public Space*. 4.
[344] Dovey, *Framing Places: Mediating Power in Built Form*. PP14-15.

State legitimacy. As Dovey explains, “Rituals of legitimation are powerful because one can’t argue with them – they are the way things are done, the way the ‘real’ is constructed.”[345]

[345] Ibid. PP14-15.



REGULATORY PROCEDURES AT TRAFALGAR SQUARE

- Site specific regulation signs - 4, at four places
- Area specific rules signs - 10, at three places
- Whole-site behaviour rules signs - 3, at three places
- Site branding - statuary, especially Nelson's Column
- Local and national laws and regulations operate across the site and are not visibly expressed
- Segregation and limited hours of operation only apply to the cafe under the terrace in the north east corner











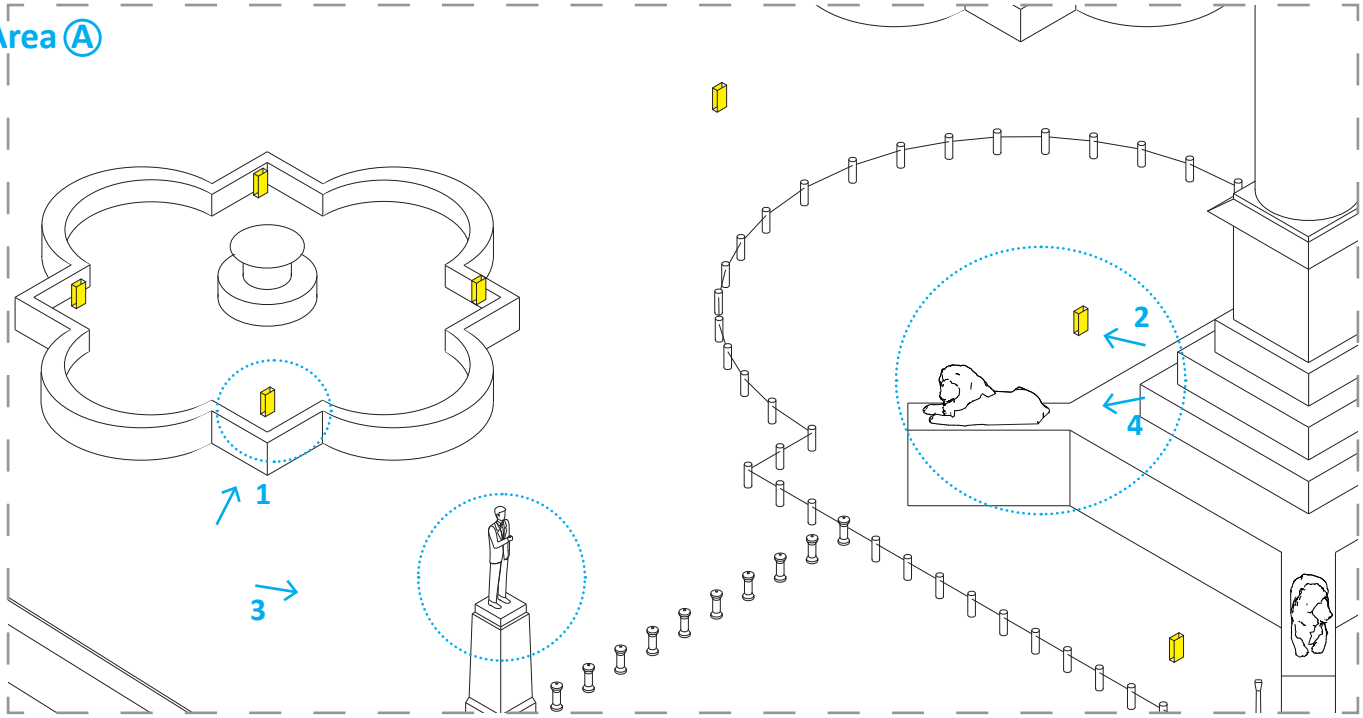


Area A

This is the centre of the site and is occupied by its most significant decorative and memorial features – Nelson's Columns and the two fountains designed by Edwin Lutyens. There is a concentration of advertised behaviour rules in this area as they relate to the Lion statues at the base of the Column and the fountains. Behaviour rules specific to this part of the site are: no entry to the fountains, and do not climb onto the Lion statues. This area of the site was monitored heavily by Heritage Wardens who were observed to actively enforce the behaviour rules related to the fountains and the Lions. In this area, memorialisation of past military action is used to signify strength of the State and the future possibility of further such action.[346] This is emphasised by the chosen architectural / sculptural style of the Square and its symbolic elements. The space has an architecture of domination – it is ordered and rigid, the use of stone suggests solidity and strength, the Column suggests intimidating power and capacity. The Square, particularly this part of it, uses memory to signify power.

Specific rules related to these memorial features serve two purposes. Firstly, they are intended to ensure public safety, such as preventing people from falling off the Lion statues and being injured. Secondly, these rules ensure respectful behaviour at these significant memorial elements. The rules maintain a preferred standard of behaviour that is deemed to be appropriate to the significance and purpose of the site. Neither the fountains nor the lions were original to the construction of Trafalgar Square although both were planned from the beginning. The current fountains were unveiled in 1948, replacing the original fountain scheme; the Lions were added in 1867. Both these elements form integral parts of the overall memorial scheme of artwork and they have high symbolic value – making them legitimate targets. The risk of attack is more acute at symbolic and memorial elements of public spaces as any successful attack will carry additional meaning, amplified by terrorist propaganda. However, in this case, the behaviour rules that apply specifically to these elements do not relate to terrorism or national security threats – they control the behaviour of everyday people visiting the site. Climbing the lions and entering the fountains are behaviours associated with riots and celebrations that have historically occurred in Trafalgar Square. The rules related to these features is a public order response, not a public safety response.

[346] Ibid. P12.



DETAIL VIEW: REGULATORY PROCEDURES



1: 'No entry' signs within the fountains - behaviour rules are advertised and actively enforced.



2: Sign advising people not to climb the Lions - for safety reasons. This rule was actively enforced by Heritage Wardens. Note also the CCTV sign in the background.



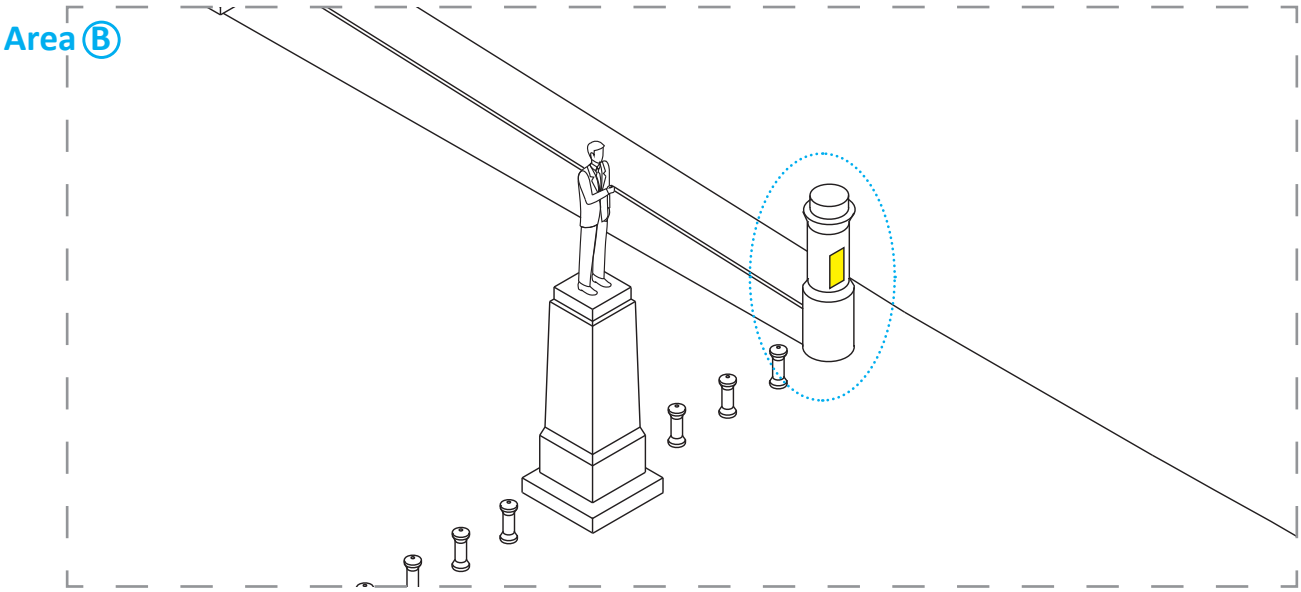
3: Military statue - General Charles Napier - forming part of the site's intended identity as a memorial of military and colonial figures, fixing a preferred identity to place and nation.



4: Children climbing the Lion sculptures despite the rule not to do so. Heritage Warden told them to get down shortly after.

Area B

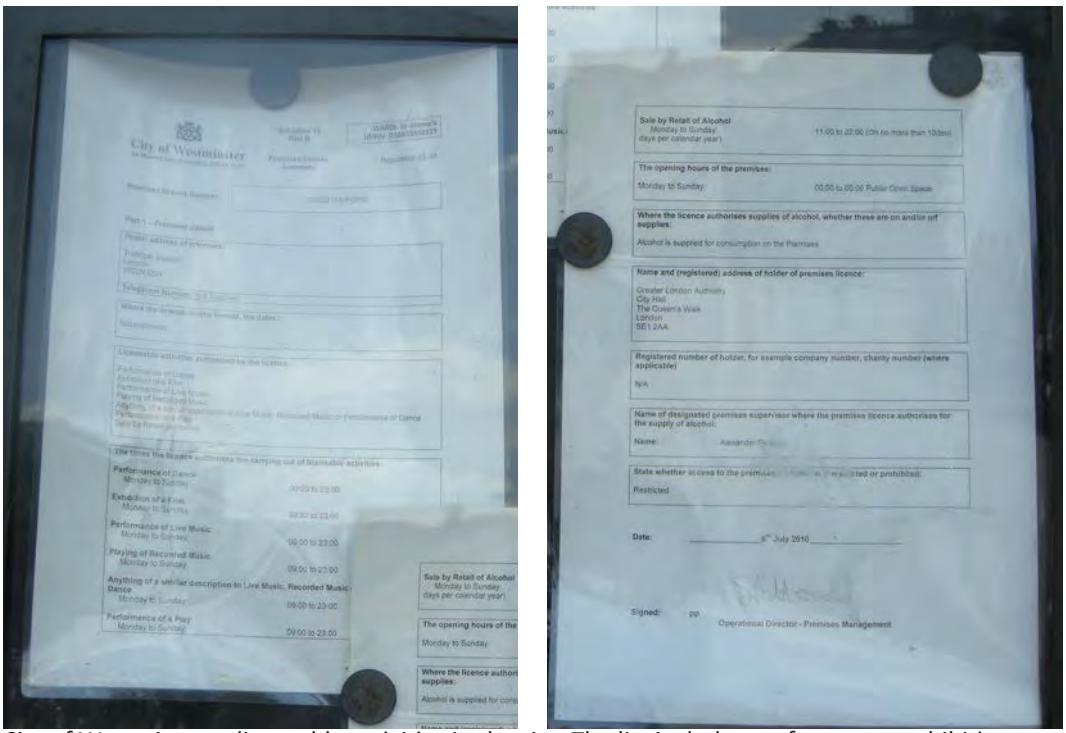
At the southern terminus of the perimeter walls along the east and west sides of the site there are large stone plinths with lamps on top. The plinth at the south east corner of the site was constructed with space inside for a police officer. This 'police booth' is no longer used as a tiny police station but it remains as a visual reminder of the presence of power and authority acting within the site. On the south side of the police booth is a glass display cabinet displaying the City of Westminster list of licensable activities. The list includes performance, exhibition and sale of alcohol, and specifies the times of day these activities are allowed. These activity rules were followed without much evidence of enforcement. Alcohol was not freely consumed in the site, only in the café where it is allowed. Busking was restricted to the North Terrace and was not observed in the main body of the Square. There is a sub layer of rules around busking pitches that has been developed within the busking community, independently of Trafalgar Square's rules, that controls how the buskers operate. The licensable activities sign also specifies the opening hours of the premises: *Monday to Sunday 00:00 to 00:00 Public Open Space*. Restricted hours of operation are not a control measure used at Trafalgar Square. It is always open to be used, but the allowed behaviours once in the site are regulated and controlled. The space is free for the public to use so long as they use it in an appropriate manner.



DETAIL VIEW: REGULATORY PROCEDURES



Display box at the police booth in the south-east of the site.



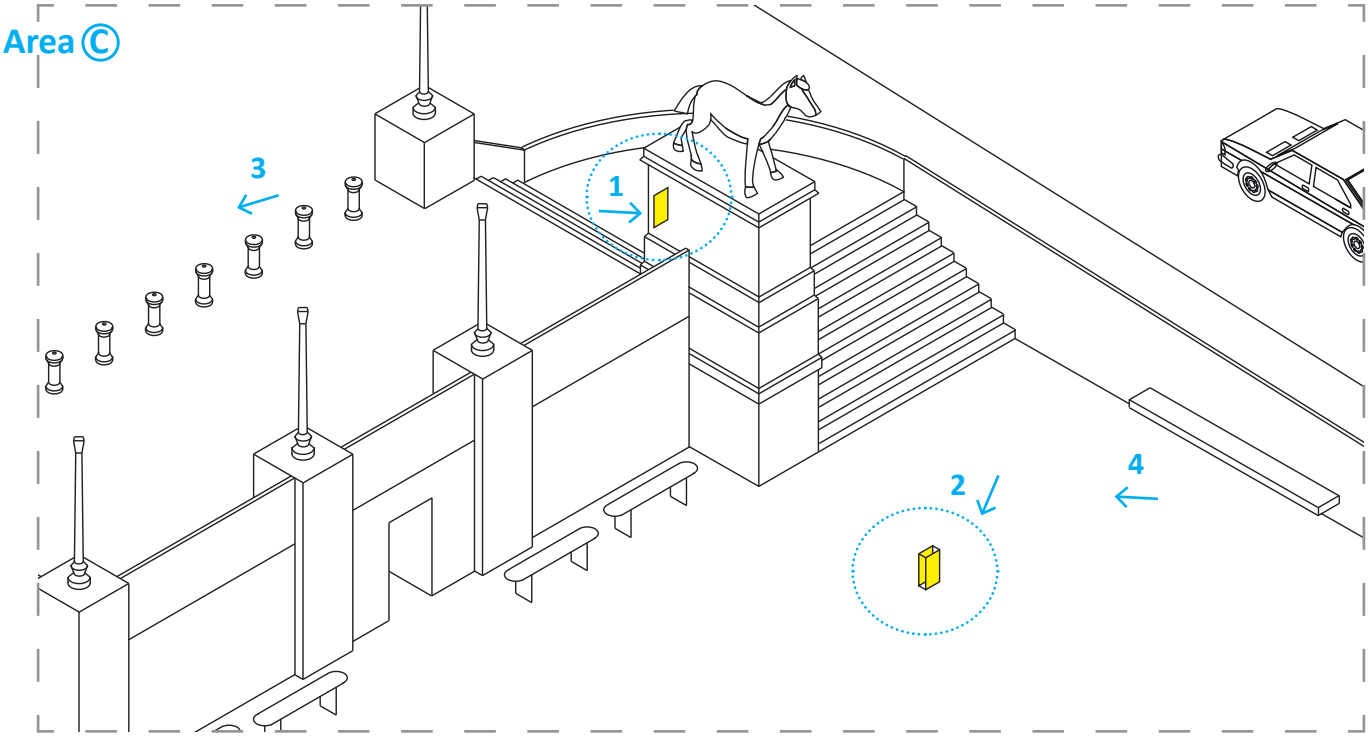
City of Westminster - licensable activities in the site. The list includes performance, exhibition, sale of alcohol and notes times of day these activities are authorised.

Area C

At the north east of the site the Trafalgar Square byelaws are again on public display on the north face of the statue plinth. While the byelaws are advertised, they are not prominent and are only evident to people who can read English in very small print. The byelaws are available, but they are not accessible. Nevertheless, the rules apply whether people are aware of them or not, and they apply across the site. Of the three case study sites, Trafalgar Square is the only one that openly displays a range of rules and regulations applying to the site rather than just rules about specific parts of the site. South of the statue plinth is an a-frame sign advising that CCTV is in operation. There were four of these signs throughout the Square observed during each site visit. The signs are not a regulation, they advise people of surveillance measures in the site. But in doing so, they encourage preferred behaviours as people in the Square are made aware that their behaviour is being monitored. When people are aware their behaviour is being monitored they may be more likely to censor their behaviour and comply with expectations. The CCTV sign is interesting because it is not a regulation, it is not the enforcement of a regulation, and it is not a surveillance measure. But it is an adequate reference to those things that the job of controlling the public's behaviour is taken up by the members of the public themselves. In a regulated and controlled society even the suggestion of a panopticon is enough to cause people to internalise rules and behave accordingly.

Two new spaces were constructed below the North Terrace during the pedestrianisation programme – a café and public toilets – accessed via the retaining wall at the north end of the main body of the square. Both of these spaces are segregated by time and by user. The toilets are only open during the day time and require a fee for entrance. The café, including some seating within the square, is a space for paying customers. These spaces both demonstrate the idea of spatial depth – both literally and figuratively – as a marker of segregated access.[347] They also demonstrate how segregation through built form and programme, enables behaviour on one side while constraining it on the other side.[348]

[347] Hillier and Hanson, *The Social Logic of Space*.
[348] Dovey, *Framing Places: Mediating Power in Built Form*. P19.



DETAIL VIEW: REGULATORY PROCEDURES



1: Trafalgar Square Byelaws signs are posted in four locations around the site.



2: Signs advising the CCTV is in operation - this controls behaviour by reminding people they are being watched.



3: Busker at the North Terrace - the only part of the Square where busking is allowed. It is a popular area due to the high tourist numbers.



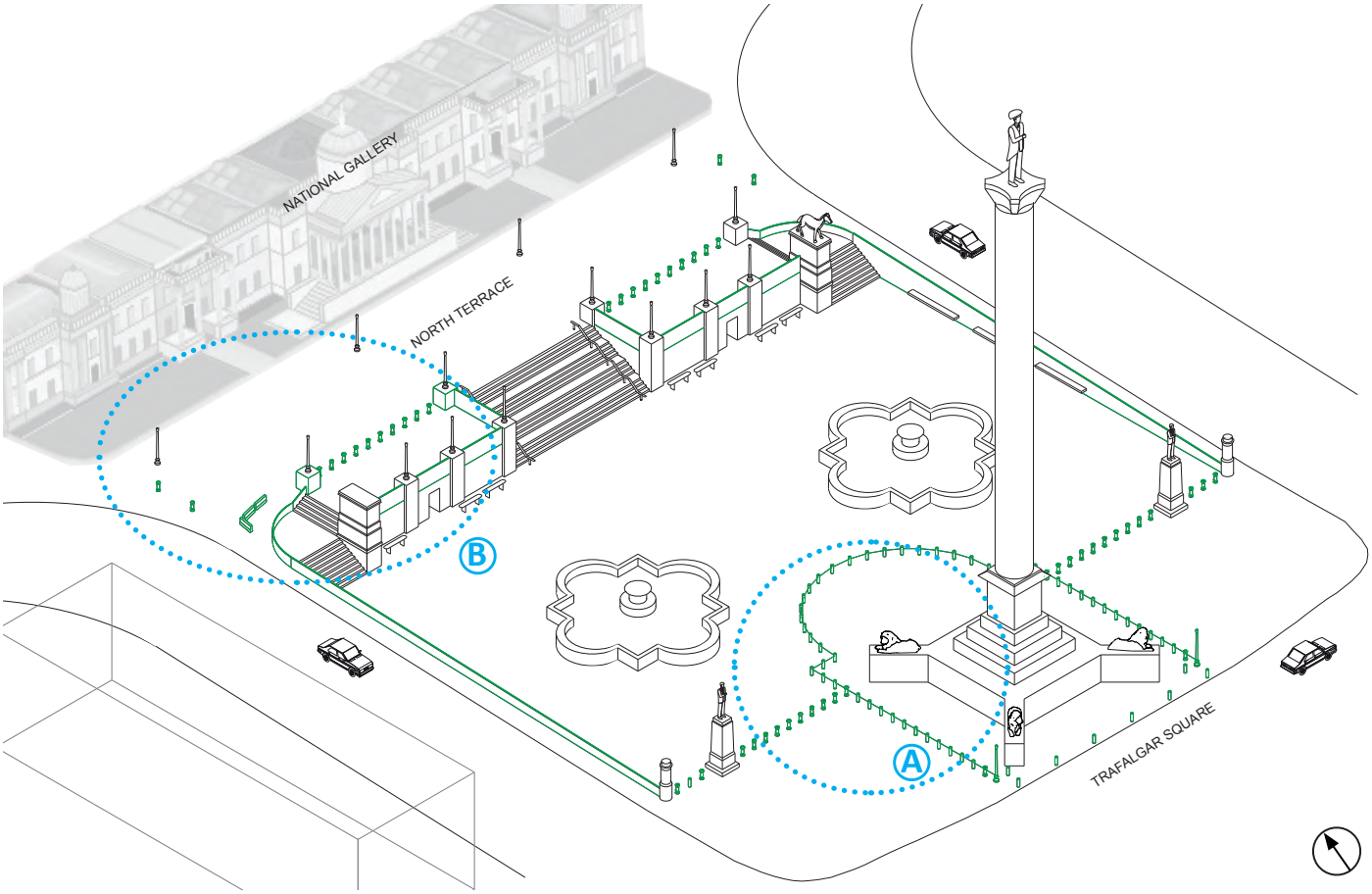
4: Heritage Warden (indicated) patrolling the Square.

5.4.3 Fortress Measures

The overall perimeter of the site has changed since its original construction with the extension of the space northwards to encompass the former street between the Square and the National Gallery, which now forms the North Terrace. Perimeters are controlled through bollards at the south and north, solid wall barriers at the east and west, and through surveillance (CCTV, police and passive). The walls at the east and west, and the bollards at the south, as original features of the site dating from the 1840s clearly were installed for reasons other than hostile vehicle mitigation and other contemporary concerns. Perimeters divide the space and indicate a change in the meaning or preferred use of pieces of space.

The space is visually very open, the whole site can be seen and understood in a single glance. The perimeter controls create a situation where pedestrian traffic in and out is funnelled through the north and south ends of the site. It does not appear inaccessible and is permeable. The physical perimeter controls do not restrict open access to the space for pedestrians. However, pedestrian control increases further into the space, particularly at the north where the site rises up to the North Terrace with three sets of stairs. The curved stairs at the east and west are part of the original design while the central staircase was added as part of the pedestrianisation of the North Terrace. Those works produced two rectangular areas of space that are almost entirely enclosed with balustrade walls across two sides, bollards along the north and a staircase. These areas of the site become gathering points and provide a stage to observe the activity in the Square below.

The following section examines fortress measures, particularly as they form perimeters, at several small areas within the wider site.



FORTRESS MEASURES AT TRAFALGAR SQUARE

- Cast iron bollards - 58, at one area of the site
- Large cast iron bollards - 4, at one area of the site
- Stone bollards - 47, at six areas of the site
- Temporary concrete barriers - 3, at one area of the site
- Stone wall - 2 walls, at two areas
- Stone retaining wall and balustrade - 2, in two areas

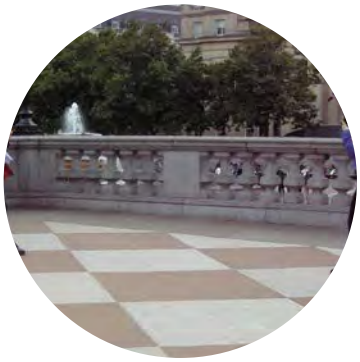








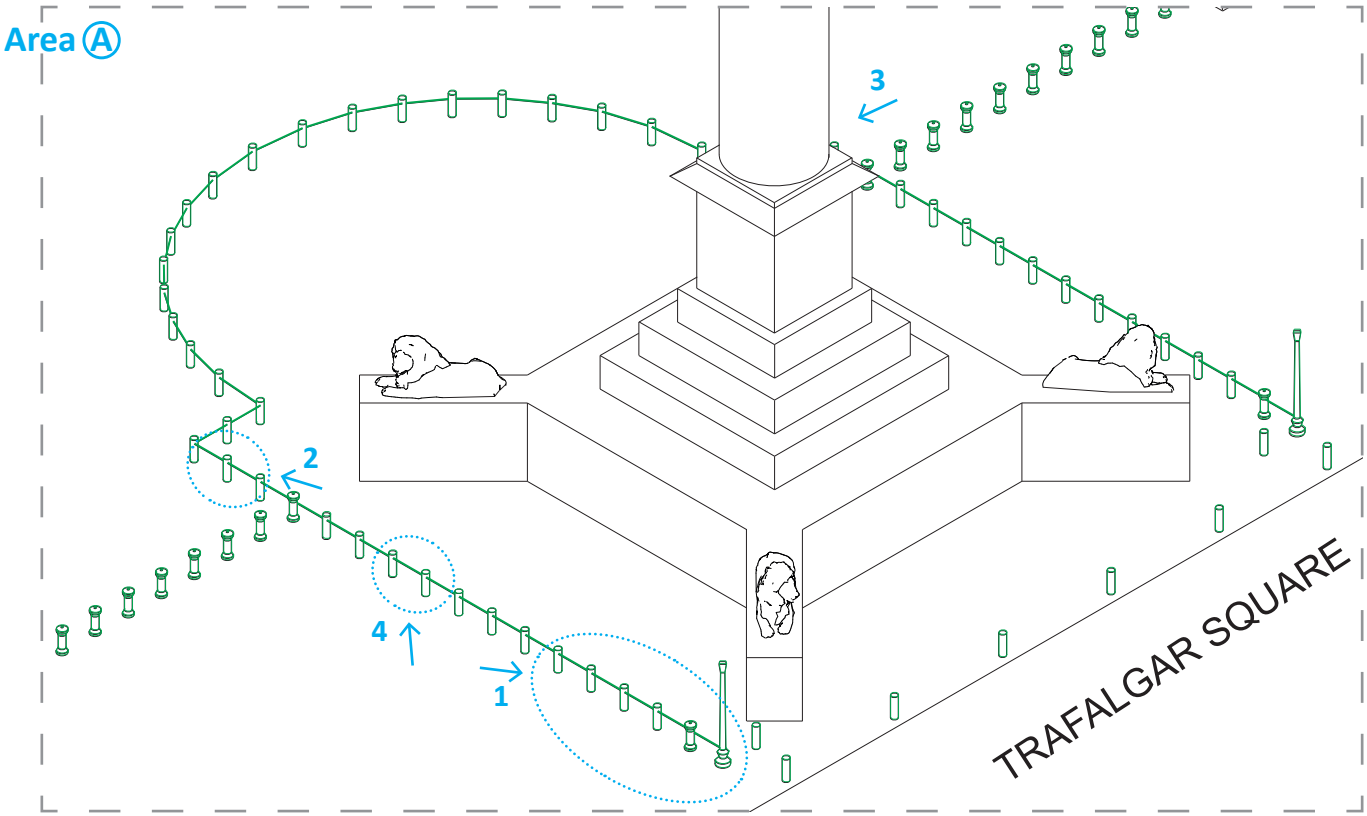




Area A:

Nelson's Column and its immediate surroundings is the most symbolically significant part of the site. Bollards here are an original feature of the site, the metal bollards are of a type seen throughout the City of Westminster and adjacent parts of London. Bollards are arranged to create a sub-space, a sectioned off area of the wider site that delineates this area as being of a different quality than elsewhere. The area is defined as a square with one side opening out as a half circle that creates a forecourt for the Column. There are lines of stone bollards extending out from the Colum outwards the side boundaries of the site. The expansion of space here defines a gathering area with a directional focus towards the Column. The lines of stone columns define an inside and outside relationship between the Column sub space and the rest of the site. This area has historically been used for performance, demonstration, rallies and speeches – a function it maintains today. Metal bars between the bollards mean that this area is fenced in, the boundary is not permeable compared with arrangements of bollards elsewhere at the site. Some of the metal crossbars can be removed which controls and limits ease of access into this space. The combination of a controlled, semi-permeable perimeter and the shape of the defined space affects the social meaning and symbolism of this area of the site. From a security perspective, the social, historical and symbolic meaning of this section of the site increases the risk of its being a target for attack. The fortress measures at Nelson's Column are an original feature designed by Charles Barry, they are not a response to recent threats. Fortification here controls the hierarchy of spatial use and the symbolism of the area.

The bollards surrounding the base of Nelson's Column are linked with metal bars creating a solid fence. This indicates that an important spatial division that highlights the additional symbolic value of Nelson's Column and the lion statues at the base. The security function in this case is controlling behaviour by indicating spatial meaning and funnelling pedestrian access to this part of the site. There is little purpose at this point for bollards to have hostile vehicle mitigation function as the large stone column base would serve that function. Nevertheless, the bollards and metal bar fence at this area prevents clear and direct movement of traffic (people or otherwise). They have a control function, but they control against a known danger – vehicles and unfiltered pedestrian flow. The bollards today serve a purpose that was not conceived of when they were originally installed – namely hostile vehicle mitigation. This is not a retrofitted controlling security feature, it is an example of the existing characteristics of the space serving a new and unexpected purpose. This function would not exist if the threat of hostile vehicles had not emerged. This is an example of unintended controlling security functions of existing site features. As opposed to the retrofitting of security measures in response to a new threat that has emerged after the construction of the site.



DETAIL VIEW: FORTRESS MEASURES



1: Combination of small and large cast iron bollards. Note metal bar connecting bollards to form a fence.



2: Covered hole in ground indicating where a removable bollard has been taken out temporarily.



3: Temporary perimeter barriers set up to create a stage area separate from audience at Sikh Genocide memorial rally.

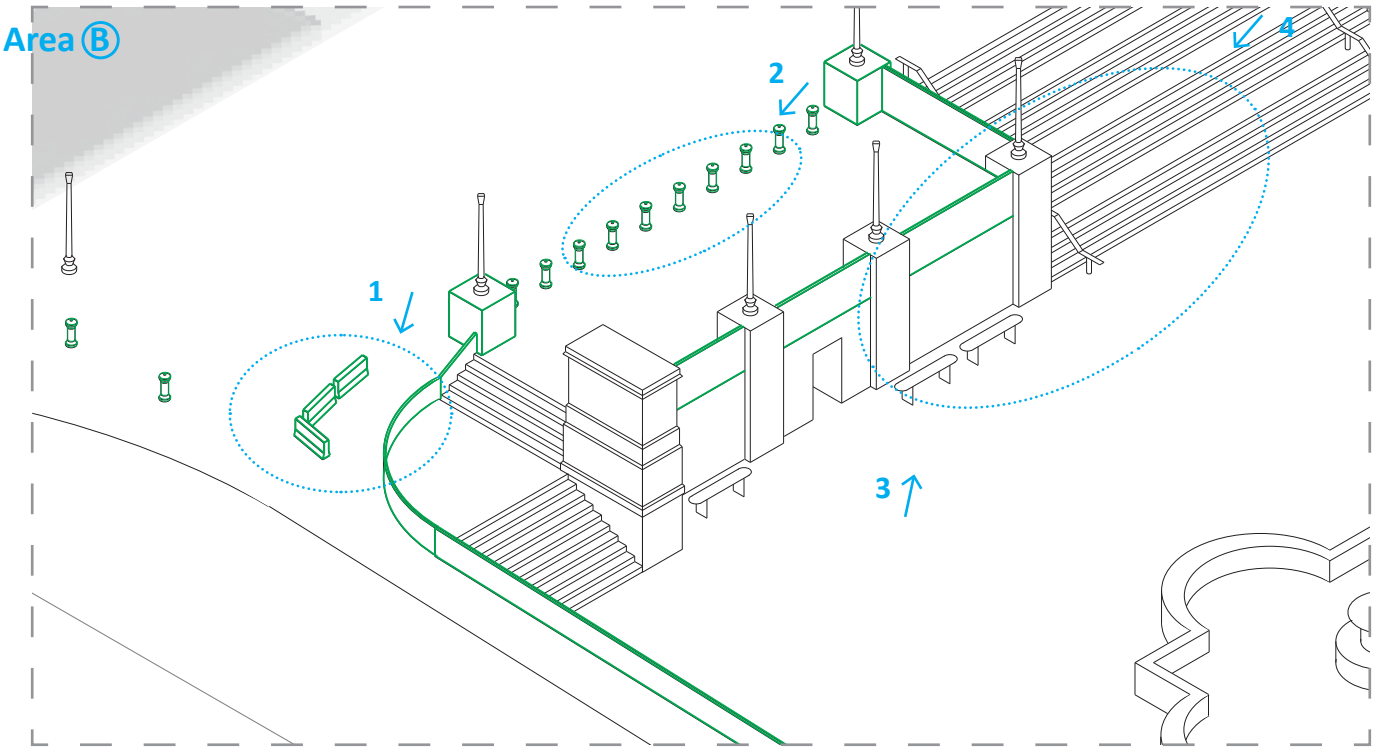


4: The bar between bollards can be removed at certain points.

Area B

This part of the site includes the original north boundary of the site, overlapped with the new boundaries created by the recent pedestrianisation of the North Terrace. Perimeters are delineated by fortress measures and ground material/level changes between the footpath and the roadway. The layering of perimeters in this area reflects the historical development of the site over time and is only partially the result of the implementation of controlling security measures.

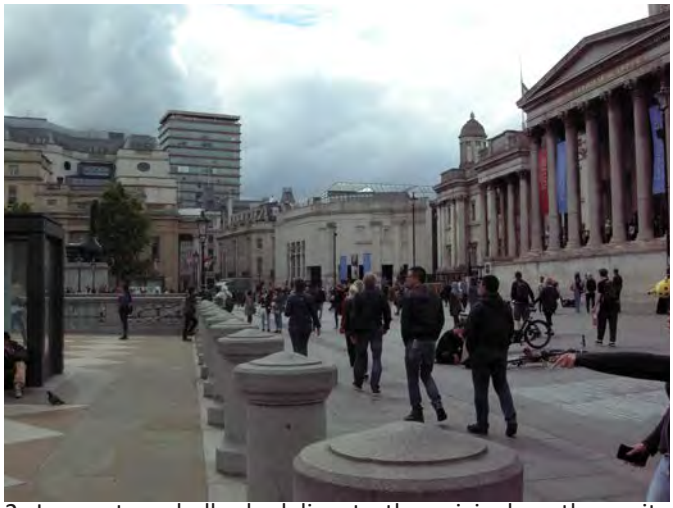
There are three concrete Jersey barriers at the west of this area, forming a curve parallel to the original stone barrier fence where pall mall East curves south around the Canadian Embassy building. It is not clear why these have been installed – the do not prevent hostile vehicles from entering the North Terrace, nor do they provide additional protection for pedestrians against vehicles on Pall Mall East. While the barriers are a fortress measure they do not seem to be performing a security function. The barriers create a pathway and indicate preferred direction of movement (south and parallel to the roadway), as well as forming an additional place to dwell. I observed people sitting on these barriers several times during site visits.



DETAIL VIEW: FORTRESS MEASURES



1: Temporary concrete jersey barriers at the west end of the North Terrace parallel to the existing stone fence/barrier. This fence curves to form the side boundary of the site.



2: Large stone bollards delineate the original northern site boundary and form a perimeter between the pedestrianised North Terrace and the upper balcony area.



3: A new staircase cuts through the original balustrade forming northern boundary prior to the creation of the North Terrace.



4: The new central stair is a popular place to sit.

6 Case Study: Hashemite Plaza, Amman, Jordan

6.1 Description, Background & History

Hashemite Plaza in downtown Amman (Figure 6.1) is a large public square that features several civic and tourist functions and programme. It was revamped to its current design in 2014. The site is bounded to the north by Al-Hashemi Street, the major east-west thoroughfare in downtown Amman. To the south, Al Muddaraj Street curves past half of the site while the Roman-era theatre forms a dramatic boundary. To the east, off Algeria Street, is a car park; and to the west is the Greater Amman Municipality Library. Many local bus routes travel past the plaza connecting it to the rest of the city. Hashemite Plaza is a complex PMG containing flows of traffic, habitation, history, tourism, culture and politics. It is centrally sited in downtown (Al Balad) the oldest part of the city, an area that unites all elements of Ammanian society. Amman, the capital of Jordan, is uniquely positioned in the centre of current tensions and terrorist fears in the Middle East. Located between Israel and Iraq, Jordan acts as a buffer against the regional spread of terror group ISIS.[349] The United States maintains military bases in Jordan and the strong alliance between the two countries suggests tactical and strategic overlaps in security and CT strategies.[350]

The meaning of public space needs to be considered in its socio-cultural and historical context. 'Public space' has a different meaning in Amman than it does in London or Melbourne, and there is a different historical development of the idea of public space and place. The meaning and role of public space in Amman today has been shaped by its history and the various different cultures that have ruled the area. Different attitudes and motivations to public space have left physical traces in the city, and reveal how space was organised and people controlled.

[349] Nikita Malik and Abdullah Shami, "Jordan: The Jewel in the ISIS Crown", *Carnegie Middle East Centre* June 24, 2014, http://carnegie-mec.org/diwan/55995?lang=en

[350] US Department of State, *Country Reports on Terrorism 2015: Chapter 2. Country Reports: Middle East and North Africa Overview* http://www.state.gov/j/ct/rls/crt/2015/257517.htm



Figure 6.1: Aerial view of downtown Amman showing the location of Hashemite Plaza (in red). Source: Google Maps, 2019.

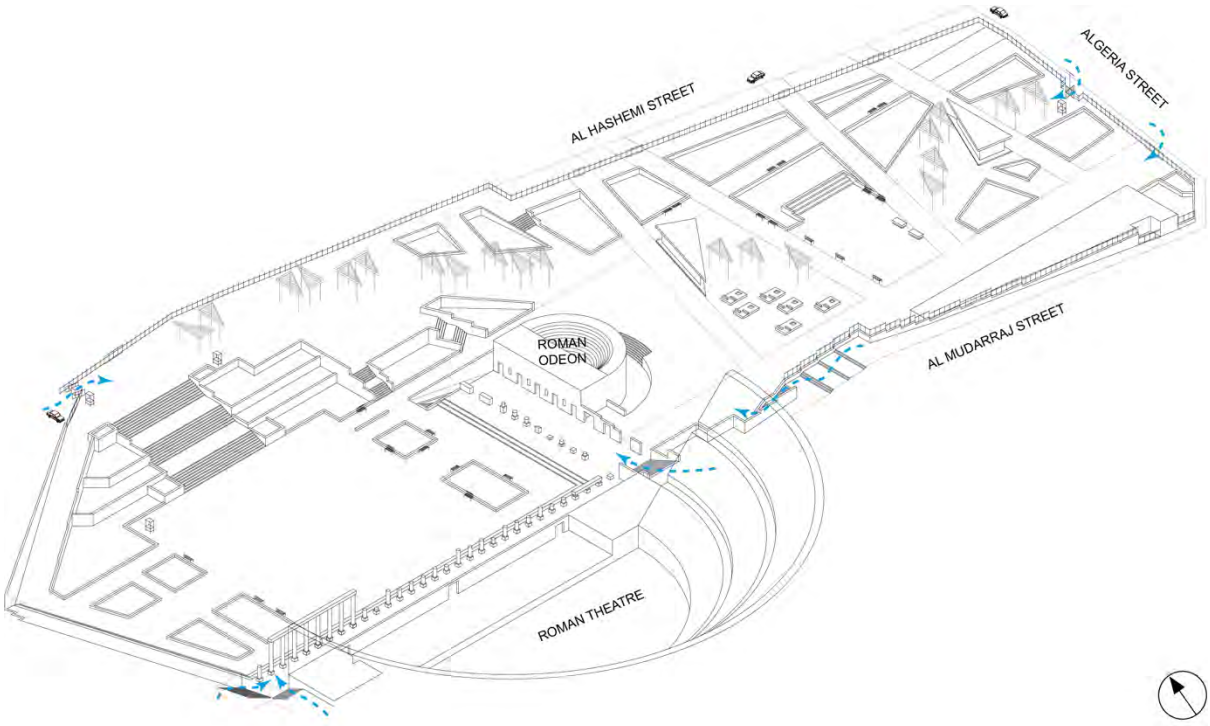


Figure 6.2: Diagram of the study area at Hashemite Plaza. The blue arrows indicate access into the site.

There is archaeological evidence of human occupation in Jordan from at least the Palaeolithic period.[351] The history of human occupation and early civilisation in Jordan is extensive and interesting,

[351] Maysoun al-Nahar, "The First Traces of Man: The Paleolithic Period," in *Atlas of Jordan: History, Territories and Society*, ed. Myriam Ababsa (Beyrouth: Presses de l'ipfo, 2013). 94.

but well beyond the scope of this research. Nevertheless, an overview understanding of historical patterns of spatial use can inform contemporary cultural conceptions of public space. Amman's historical background is legible in the contemporary urban landscape and contextualises its present-day place identity.

In the thirteenth-century BCE Amman was known as Rabbath Ammon and was the major city of the Ammonite civilisation. Rabbath Ammon was strategically located along the Kings Highway trade route between Egypt, Syria and Mesopotamia which contributed to the area's economic success. The Amman Citadel (Jabal al-Qal'a), sited on a hill overlooking Hashemite Plaza, contains Ammonite ruins. The Ammonite civilisation was conquered by the Assyrians who were, in turn, conquered by the Persian Empire.



Figure 6.3: Information signs at Jabal al-Qal'a explaining the different periods of the site's occupation and the different names used for Amman between 5500BCE and today.

Alexander the Great's conquest of the Middle East, between 333 and 323 BCE, brought Greek rule and culture to Jordan and surrounding regions. Amman was renamed Philadelphia after Ptolemy II who occupied the city. The Romans conquered Philadelphia, and the wider Levant, from 63 BC bringing an end to the Hellenistic era. In the first-century BC, the Romans established the 'Decapolis', an administrative district of 10 cities between the Nabataean and Hasmonean kingdoms. Not a great deal is known of the Decapolis' administrative system but at least six of the 10 cities were in modern Jordan and Philadelphia / Amman was the southernmost city of the 10. The Decapolis cities were mostly founded by the Greeks and thus, while they were administered by Rome they maintained a Greek character.[352] The Decapolis faded into history after the Emperor Trajan brought Philadelphia (and the northern city of Jerash) into the Province of Arabia from 106 AD.[353] The Roman period was one of

[352] Christian Auge, "The Territory of the Ten Cities: The Decapolis," ibid. 158.
[353] Ibid. 158.

relative stability and economic and urban growth, as military protection and 'pax romana' extended throughout the area. Amman felt the effects of the Empire's economic decline from the third-century but experienced a cultural revival in the Byzantine period ensuring the Greco-Roman cultural influence continued.[354] The Greco-Roman city of Philadelphia is still visible in modern Amman. The present-day downtown area was the centre of Philadelphia and the street pattern was established during this time. The *cardo maximus* and the *decamanus maximus* of the Roman city are still evident today as K. Faisal Sq (which becomes Ar-Reda Street) and Al-Hashemi Street. The site of Hashemite plaza today was the area forming the Roman Forum, adjacent to the *groma* via the arcaded *decamanus maximus*.[355] The Forum included the Roman Theatre and Odeon which were built around 161 AD during Emperor Antoninus Pius' reign. Other extant Roman-era ruins include the Nymphaeum, south-west of Hashemite Plaza; and the Temple of Hercules on Jabal al-Qal'a, the citadel hill (which was the *acropolis* in the Greco-Roman times. Hashemite Plaza maintains the historical use of this area as an open public gathering space at the centre of the city.

The Byzantine Romans were conquered in the seventh-century AD by the Umayyad civilisation, beginning Islamic rule of the area. During the Umayyad period most people remained Christian, although the gradual conversion to Islam brought mosques and Islamic art and changing practices of daily life.[356] The Umayyads were itinerant rulers who built castles throughout their territory, many of which survive in Jordan today, including the city built on Jabal al-Qal'a next to the Roman acropolis (Figures 6.4 and 6.5). The Jabal al-Qal'a hill, and the valley area directly below it that forms Hashemite Plaza today, have formed the centre of each civilisation that occupied Amman, with each group building onto the fabric of the previous. The introduction of mosques brought new conceptions of public gathering and spaces for communal activities. Amman, between Damascus and Aqaba, was part of the important pilgrimage route to Mecca and became contested as opposing groups sought control of the route; and was further disrupted by the Crusaders.[357] The population of Amman declined significantly due to the Black Plague in 1340. By the sixteenth-century Jordan was occupied by around 35,000 inhabitants.[358]

[354] Ibid. 158.
[355] Alastair Northedge, *Studies on Roman and Islamic Amman: The Excavations of Mrs C.M. Bennett and Other Investigations*, vol. 1 (New York: Oxford University Press, 1992).
[356] Myriam Ababsa, ed. *Atlas of Jordan: History, Territories and Society*, New edition [online] ed. (Beyrouth: Presses de l'ipfo, 2013).
[357] Ibid. 167.
[358] Ibid. 167.



Figure 6.4: Umayyad Palace, partially reconstructed in the 20th Century, at the Citadel Hill, Jabal al-Qal'a



Figure 6.5: Remains of the Roman-era Temple of Hercules at Jabal al-Qal'a

Between the sixteenth and nineteenth centuries, the Ottoman empire ruled Jordan, but it was a marginal province and Amman fell into significant economic and population decline. Located on the pilgrimage route between Damascus and Mecca, the Ottomans main concern with Amman was the safety of the Hajj caravan. This was ensured by paying off the Bedouin tribes occupying the areas thorough which the pilgrims passed.[359] The Ottoman conception of public space and security focused on physical safety and freedom of movement through space. Certainly, in Amman, the Ottoman Empire left no physical traces of spaces intended as a public amenity. But their conception of roads as spaces where public use should be protected is notable. By the nineteenth-century, the Ottomans began to invest in transport and communication infrastructure, introducing the land code of Transjordan in 1900. In 1908 Amman was linked to the Hijaz railway which was built to support the pilgrimage route into Saudi Arabia and would later help re-establish Amman's importance in the region.[360] At the time, however, Amman was described as an underdeveloped Circassian village.[361]

[359] Ibid. 198.
[360] Jawad Dukhgan, "Amman, Jordan: The Case of Open Space," The Funambulist, https://thefunambulist.net/articles/amman-jordan-case-open-space-jawad-dukhgan.
[361] Ibid.



Figure 6.6: Panorama photo of the Roman Theatre and Odeon (indicated) dated 1875. Amman at this time was largely undeveloped and both historical sites were ruins. Note the open area in front of the Theatre which remains today as the main gathering space of Hashemite Plaza.[362]

Circassian refugees began arriving into Jordan in the 1870s in two waves. The first wave in 1878 saw the establishment of Amman as a refugee settlement, within and surrounding the Roman Theatre.[363] The Circassian Muslims (they referred to themselves as Adyghe) are a Caucasian ethnic group who were displaced from Circassia in the North Caucasus by the Russian Empire in the late 19th Century.[364] Most Circassians fled to the Ottoman Empire and settled into modern day Turkey and the Levant. Today, one cabinet minister in every Jordanian government is required to represent the Circassians, and they form the Hashemite Honour Guard at Royal Palaces.[365] While Circassians make up only 1-2% of the population, their settlement was important in the development of Amman. Circassians were the first of multiple waves of refugees to have boosted Amman's population and economy, restoring

[362] Northedge, *Studies on Roman and Islamic Amman: The Excavations of Mrs C.M. Bennett and Other Investigations*, 1.
[363] Ababsa, *Atlas of Jordan: History, Territories and Society*. 199.
[364] Vladimir Hamed-Troyansky, "Circassian Refugees and the Making of Amman, 1878–1914," *International Journal of Middle East Studies* 49, no. 4 (2017).
[365] Ababsa, *Atlas of Jordan: History, Territories and Society*.

its importance in the region but also causing significant development pressures on urban space and infrastructure.

In 1916, the Great Arab Revolt fomented a sense of a united, independent Arab identity and precipitated the fall of the Ottoman Empire in 1918. The end of World War One and the withdrawal of the Ottomans led to the partitioning of the Middle East by France and England. Transjordan was included in the British mandate, and in 1921 the British created the Emirate of Transjordan, under Emir Abdullah, paving the way for a self-governed colonial state.[366] The Mandate period was one of rapid urban growth for Amman, British understandings of public space based on liberal western ideals were overlaid onto the map of the city. These ideals imagine civil institutions and public space as democratic sites for the shared expression of community and political life.[367] These ideals were applied, however, on a population with little experience of these cultural ideals. Pressures of a rapidly growing population saw the growth and development of urban form and key institutional structures.[368]

The Mandate period ended in 1946 with the establishment of independent Kingdom of Jordan. At that time Amman was the largest city in the kingdom by population and economy.[369] The Arab-Israeli War of 1948 directly led to a huge growth in Amman's population, as Palestinian refugees fled into the city. Amman's population in 1947 was 33,100 but by 1952 it had risen to 108,304; a large proportion of the population was living in caves and tents.[370] The population today is over 2 million. Rapid population growth due to influxes of refugees has been a consistent theme in Amman's development since the Circassians arrived in the 1870s and continuing to the present day with Syrian refugees. According to the UNHCR there were 740,160 refugees in Jordan in 2018, mostly living in urban areas; 657,628 of these are Syrian.[371]

Development pressures related to waves of massive population growth have inspired several large-scale urban plans for Amman, although these have not all gone ahead. Five large-scale masterplans were prepared for Amman in the second half of the twentieth-century, and the beginning of the twenty-first; in 1955, 1968, 1978, 1988 and 2008.[372] Masterplans are generally based on current and predicted population and economic growth; available resources; and expected limitations.

[366] Dukhgan, "Amman, Jordan: The Case of Open Space".
[367] Nabil I. Abu-Dayyeh, "Persisting Vision: Plans for a Modern Arab Capital, Amman, 1955-2002," *Planning Perspectives* 19, no. 1 (2004).
[368] Ababsa, *Atlas of Jordan: History, Territories and Society*.
[369] Dukhgan, "Amman, Jordan: The Case of Open Space".
[370] Ibid.
[371] Juliette Stevenson, "Jordan: Fact Sheet," (UNHCR, 2018). And Marwa Hashem, "Zaatari Refugee Camp: February Factsheet," (UNHCR, 2018).
[372] Andrew David Pilder, "Urbanization and Identity: The Building of Amman in the Twentieth Century," (Miami University / OhioLINK, 2011). P30.

Unexpected waves of migration tend to throw off predictions and put extra pressure on resources; disrupting the implementation of large scale urban development plans. The proposed masterplans are an example of the layering of culture and civilization onto Amman, particularly the downtown area surrounding Hashemite Plaza, that has been going on since ancient times. Urban visions for Amman in the post-war era are based in power structures and cultural dominance of the colonial period and recent globalization.[373] The first masterplan in 1955, the *Development Plan for Amman,* was developed by Gerald King and Max Lock (both British town planners working for the United Nations) in response to urban pressures of rapid population growth and link urban space with social and economic development.[374] King and Lock were articulating a new capital for a newly independent nation, and were inspired by British planning innovations of the 1940s.[375] The plan proposed a central, downtown area that included key civil and cultural functions as well as a 'central park' in the location of Hashemite Plaza. The plan also proposed elevated roads built on the roofs of apartment buildings in valleys as a way to span hilltops and overcome the city's formidable topography.[376] The plan was not implemented, but some of the ideas remained influential in future plans. Indeed, the layout of the downtown today reflects this to a degree with the central park of Hashemite plaza flanked by the Greater Amman Municipality building and the municipal library. The 1968 *Civic Center Development Plan* was devised by Czech planner Victor Lorenz, again working under the auspices of the United Nations, who developed an administrative and technical framework for the whole of Jordan.[377] Lorenz's plan followed the natural development patterns of the city, sought to better manage vehicle traffic, and was responsible for the covering of the rivulet that ran in front of the Roman Theatre in the area that is now Hashemite Plaza.[378]

Modernisation efforts increased through the 1970s and 80s as the monarchy sought to establish new, centralised bureaucratic systems and dismantle the traditional tribal systems.[379] These efforts included the establishment of the Greater Amman Municipality as the governing body for development and planning of Amman.[380] In 1988 the government proposed the Greater Amman Comprehensive Development Plan (GACDP) that was developed by a group of experts, the Joint Technical Team, led by British planner John Calder and in association with the Greater Amman

[373] Rama Al Rabady and Shatha Abu-Khafajah, "'Send in the Clown': Re-Inventing Jordan's Downtowns in Space and Time, Case of Amman," *URBAN DESIGN International* 20, no. 1 (2015).
[374] Pilder, "Urbanization and Identity: The Building of Amman in the Twentieth Century." P31.
[375] Abu-Dayyeh, "Persisting Vision: Plans for a Modern Arab Capital, Amman, 1955-2002." P87. And Nabil Abu-Dayyeh, *Amman: Past and Future of a Modern Arab Capital* (2018).
[376] Abu-Dayyeh, "Persisting Vision: Plans for a Modern Arab Capital, Amman, 1955-2002." PP87-88.
[377] Ibid. pp91-92.
[378] Ibid.pp91-92.
[379] Eliana Abu-Hamdi, "Bureaucratizing the City: Moderated Tribalism, Regime Security, and Urban Transformation in Amman, Jordan," *Traditional dwellings & settlements review* 27, no. 11 (2016).
[380] Ibid. pp23-24.

Municipality. Calder admitted that Greater London was an influential model for the development plan at Amman.[381] The 1988 GACDP proposed social, infrastructural, transport and economic interventions; the scope of the plan reveals that the project was political as well as urban.[382] The political aspect was the centralisation of power in bureaucratic systems, diminishing tribalism, and securing the monarchical regime. The GACDP was ultimately derailed by the financial crisis of 1989. After this, the GAM reverted to an unregulated approach to planning and, while maintaining regulating authority, it was undermined by tribal systems that were not quashed by bureaucratic modernisation efforts.[383] In 2006 the GAM sought to finally replace the GACDP and devised a new masterplan *Amman 2025.* This plan was similar to the GACDP in that it pushed the boundaries of strategic urban planning to incorporate national development, place branding, and government structure.[384] However, the plan again faces the challenge of negotiating a holistic urban vision and the development pressures of a rapidly growing city.[385]

Amman today is a densely populated city that has outgrown its original seven hills. It is roughly divided into East Amman and West Amman with downtown in the centre. This division is unofficial but exists very firmly in the minds of Ammanians with the west being the more affluent area while the east (and south), including the downtown, being home to the poorer residents particularly new migrants and refugees. The division between east and west is one of the defining features of the city; downtown acts as a theoretical barrier between the two parts of the city and Hashemite Plaza, located in the centre of downtown along the major road artery, is a key site linking the two parts of the city. The key to understanding the urban morphology of Amman is to understand it in terms of its neighbourhoods or landmarks. Addresses are given in reference to major intersections, not the specific building number in the street. Neighbourhoods are also defined by the major hills and the series of traffic roundabouts extending westward from downtown. Once the city is conceptualised in terms of its neighbourhoods, the importance of a central downtown area is better understood. Amman's development and urban design outcomes need to be considered in the context of disruptive national and regional events, particularly conflict and the movement of refugees. Public open spaces were not enough of a priority to survive the urban pressures of rapid population growth and refugee influxes. After independence in 1946, British influence waned as the effects of the Mandate period were broken down and challenged, allowing an influx of aid and influence from the United States, beginning in the

[381] Abu-Dayyeh, "Persisting Vision: Plans for a Modern Arab Capital, Amman, 1955-2002." P 99.
[382] Abu-Hamdi, "Bureaucratizing the City: Moderated Tribalism, Regime Security, and Urban Transformation in Amman, Jordan."
[383] Ibid.
[384] Robert A. Beauregard and Andrea Marpillero-Colomina, "More Than a Master Plan: *Amman 2025*," *Cities* 28, no. 1 (2011).
[385] Ibid.

1960s.[386] Planning and development in Amman are characterised by contesting approaches and ideas. The city's ancient identity and the impact of western colonialism result in a complex framework of motivations and desires that is not paralleled in either of the other case study locations. Contested identities in Amman are evident in the development and shaping of Amman's urban space.[387]

[386] Abu-Dayyeh, "Persisting Vision: Plans for a Modern Arab Capital, Amman, 1955-2002." 90

[387] Rama Al Rabady and Shatha Abu-Khafajah, "'Send in the Clown': Re-Inventing Jordan's Downtowns in Space and Time, Case of Amman," *Urban Design International* 20, no. 1 (2015).



Figure 6.7: Stages of development of Hashemite Plaza.[388]

[388] Saba Innab, "Reading the Modern Narrative of Amman: Between the Nation and the National," in *The Arab City: Architecture and Representation*, ed. Amale Andraos and Nora Akawi (New York: Columbia University Press, 2016).

6.1.1 Legislation

The Hashemite Kingdom of Jordan's government is a parliamentary monarchy led by a Prime Minister; the head of state, since 1999, is King Abdullah II who is a hereditary monarch. While the government is a multi-party democracy, the king retains ultimate executive authority signing (or vetoing) all laws. Jordan is split into administrative divisions, or governorates, under the Ministry of the Interior.[389] The Amman Governorate covers a large area of over 7000 square kilometres, with Amman as the capital city.

The primary security legislation that acts over Hashemite Plaza is Jordan's Anti-Terrorism Law No. 55 of 2006,[390] that was enacted in response to hotel bombings in 2005 in Amman. The law was amended in 2014 in the face of a new threat environment resulting from the Syrian conflict. The amended law provides a rather broad definition of terrorism, and includes some non-violent acts: "harming relations with a foreign state, exposing Jordan to hostile acts, using the internet to facilitate terrorist acts or promote terrorist ideas, forming a group with the intention of committing terrorist acts, and attacks on the life or liberty of members of the royal family."[391] Jordan's counterterror efforts date back to the 1960s, at which time it took a militaristic approach. Jordan transitioned in the 1990s from a military approach to one based on policing and conciliation.[392] The primary legal authority for prosecuting terrorism and national security offences in Jordan is the State Security Court (SSC). The court's jurisdiction is limited by the 2014 amendments to the Anti-Terrorism Law to five types of crime: treason, espionage, terrorism, drug offences and currency forgery.[393] There is provision to prosecute acts that disturb public order, which has led to some controversy and concern among human rights groups. The laws have been criticised as being vague, opening the scope of their application to abuses. Critics have argued that the laws can be, and are, used to prosecute peaceful protestors, journalists and political opposition. Prosecution of acts that 'disturb public order' as terror offences is of particular relevance to this study as it would tend to curtail possible use of Hashemite Plaza as a site for protest activities. Jordan did experience political unrest during the Arab Spring, prompting the King to promise change, however it also precipitated crackdowns on dissent, freedom of speech and public gathering.[394] [395]

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[389] Ababsa, *Atlas of Jordan: History, Territories and Society*. P 226.
[390] "Anti-Terrorism Law No. 55 of Year 2006," ed. Hashemite Kingdom of Jordan (Amman2006).
[391] Extremism, "Country Reports on Terrorism 2015." P191.
[392] Gabriel Leigh Cash, "A Comparative Analysis of Jordanian and United States Counterterrorism" (Appalachian State University, 2018). P17.
[393] Extremism, "Country Reports on Terrorism 2015." P191.
[394] Alkarama Foundation, "Jordan Shadow Report," (Geneva: Alkarama Foundation, 2017).
[395] Wafa Ben-Hassine, "Jordan Is Arresting People for Criticizing the Government on Social Media," Access Now, https://www.accessnow.org/jordan-arresting-people-criticizing-government-social-media/.

Prosecution of the Anti-Terrorism Law has included the use of torture against terror suspects, enabled by a narrow legal definition of torture in Jordanian law.[396] In support of the counterterrorism laws, Jordan reinstated its death penalty for people convicted of terror offences, and abrogated rights to fair trial for those accused of terror acts.[397] Terrorism offences fall within the jurisdiction of the SSC; prosecutions can include politically motivated offences, facilitated by the broad definition of terrorism and the offence of 'insult to the monarchy' (*lèse-majesté*).[398] It has been claimed that counterterrorism is used to justify human rights violations in Jordan and that acts of torture, while illegal, are not adequately punished.[399] Jordan's counterterrorism laws are rigorous but broadly defined and applied, with the possibility that such laws can be used to silence political opposition and citizen dissent.

6.1.2 Threat Environment

The terrorism threat in Amman is complex and is difficult to isolate from the broader Middle Eastern situation. The extent and complexity of the regional terror threat and counterterrorism operations (involving multiple global actors) is beyond that at the other two case study sites. By virtue of its location in the Middle East region, Jordan is vulnerable to threats but it is also ideally positioned to take a regional leadership position countering such threats.[400] Jordan is an important ally to the United States in its efforts to counter extremism and terrorist ideology. Jordan is an attractive terrorist target due to its proximity to regional conflict, its involvement in the US-led coalition against ISIS, and its official rejection of extremist interpretations of Islam.[401] With high levels of youth unemployment, however, extremist recruiters increasingly target disaffected young Jordanians.[402] Despite its location in a volatile region, Jordan is generally politically and economically stable.

Serious terror attacks have occurred in recent years, despite Jordan's extensive counterterrorism effort. The most serious recent terror attack occurred on November 9, 2005; a triple suicide bombing carried out by al-Qaeda in Iraq targeting the Radisson, Grand Hyatt and Days Inn hotels in Amman that killed 57 people. The attack killed many local people and inspired hundreds of Jordanians to protest against the extremists. On February 3, 2015, ISIS released a video of the torture and murder of a Jordanian air force pilot who had crashed in Syria. This event enraged Jordanian leadership and

[396] "Treaties on Extradition and Mutual Assistance between Australia and Jordan," (Canberra: Law Council of Australia: Joint Standing Committee on Treaties, 2017). P5.
[397] Ibid. P5.
[398] Ibid.
[399] Foundation, "Jordan Shadow Report." P5.
[400] Extremism, "Country Reports on Terrorism 2015." P191.
[401] "Country Reports on Terrorism 2017," ed. US Department of State (Washington2017). P13.
[402] Cash, "A Comparative Analysis of Jordanian and United States Counterterrorism."

strengthened its efforts in the fight against ISIS in Syria.[403] In November 2015 a local police captain killed five people and wounded seven others in an attack at the Jordan International Police Training Centre near Amman. The attack occurred on the 10th anniversary of the 2005 hotel bombing carried out by al-Qaeda.[404] In December 2016 ISIS affiliated perpetrators took tourists hostage at the crusader-era castle in Karak, located around 100km south of Amman. The attack targeted tourists and police who responded; 14 people were killed and a further 29 injured.[405] Beyond the casualties, the attack caused damage to Jordan's reputation as a safe Middle East tourist destination, threatening the tourism industry that is a critical part of the country's economy.

6.2 Fieldwork Results

Site visit results are presented and discussed in the same manner as for Federation and Trafalgar Squares at sections 3.3 and 4.3, above. The site visits and researcher experience are described and results are presented in the measurement tool table. Security measures at each place are then discussed and analysed as objective elements in the space operating on a time scale.



Figure 6.8: View of Hashemite Plaza in the evening, looking towards the Roman Theatre.

Hashemite Plaza in Amman, Jordan is the largest of the three case study sites at approximately 5 hectares. It is the outcome of the idea of a 'Ceremonial Plaza' first proposed in the city's 1968 masterplan by Victor Lorenz, working through a United Nations Technical Assistance Program[406].

[403] "Jordan: Extremism & Counter-Extremism," Counter Extremism Project, https://www.counterextremism.com/countries/jordan#major_extremist_and_terrorist_incidents.
[404] Ibid.
[405] National Consortium for the Study of Terrorism and Responses to Terrorism (START), "Global Terrorsim Database," https://www.start.umd.edu/gtd.
[406] Abu-Dayyeh, "Persisting Vision: Plans for a Modern Arab Capital, Amman, 1955-2002." 90.

However, the Plaza was not implemented for another 17 years and in a slightly different location to the original site.[407] The Plaza was upgraded and renovated in 2014 to the form that we see it in today.

Hashemite Plaza is essentially rectangular, narrowing slightly at each end. The space can be divided into two distinct areas divided by the Odeon ruin – the open Plaza facing the Roman Theatre at the west; and the rectangular, park area to the east. The site is mostly flat with some slight rises to the north and west; while the Odeon is sunk at a lower level. This flatness is significant considering the relatively aggressive topography of the city and downtown area. Within the Park section is a small pavilion type building along the south boundary which houses toilets and occasionally a market and café. This building has a 'media wall,' a large LED screen on its north façade facing into the Park. Across from the Media Wall an area of concrete seating is arranged in such a way as to form an amphitheatre focused on the screen and the open space in front of it. Historical documents demonstrate that there was, until quite recently, a small river running in front of the Roman Amphitheatre and parallel with King Hussein Street. The memory of the river is inscribed in the place through colourful ground tiles and the gently curved arrangement of triangular shading structures in the east portion of the site. The triangle theme is continued in the form of two small, glass pavilion buildings that appear to be offices but are labelled as 'Children's Library.' There is also a long, pavilion building along the south boundary which houses toilets and, according to a sign, a market and café – although these functions were not observed.



Figure 6.9: Plan of Hashemite Plaza and surrounding streets (as it is today), the Municipal Library and garden are at the left. Source: Hashemite Plaza Project, Yaghmour Architecture & Sanabel Landscape Design & Services.

[407] Ibid. 103.

6.2.1 Site Visits

Six site visits were made to Hashemite Plaza in July 2017. The site visits attempted to experience the place under a variety of conditions – specifically, day time, evening, weekend, and during religious celebrations. The site presented a wide range of conditions across the visits, demonstrating varying levels and types of control and security. There were, however, some difficulties. Not every site condition was able to be observed – the visits occurred during a very hot part of the year which was inhospitable for daytime outdoor activities, and it is not clear how the site may have functioned differently in colder months. The heat meant that it was physically difficult to spend long periods of time in the space; this was true for me as a researcher just as much as it would be for tourists and locals.

Fieldwork in Amman coincided with part of the Muslim holy month of Ramadan. The city functions quite differently during this time; tending to shut down almost entirely during the day while people are fasting – most shops are closed, no food or drink may be consumed outside during daylight hours. The public realm comes alive as a place of mass celebration and family gathering after sundown, the evening prayers and the iftar meal. Fieldwork was physically difficult due to the heat and the ban on publicly drinking water, and for this reason the bulk of the visits occurred after the festival of Eid marking the end of Ramadan. The weather conditions and the lack of shade and shelter at the site meant that site visits were necessarily shorter than at the other sites. Eid provided an opportunity to observe the site at close to its maximum capacity as the nature of the celebration leads families to come out into the space to spend time together in public. Despite these limitations and practical difficulties, the site visits did allow me to observe the site under a variety of conditions.

<u>Visit 1: Tuesday June 27. 18:40</u>

Site visit coincided with the end of Ramadan and the Eid al-Fitr festival. About an hour prior to sundown and evening prayers, the site was very busy; occupied mostly by groups – families or young males in friend groups. I did not observe solitary females, groups of young women or mixed gender groups of young people. There were also several street traders within the space selling items such as water, corn, toys, balls, shisha and fairy floss. Street traders were either lined up in an orderly fashion along the edges of the main open Plaza square or they were walking through the space. Most of the people in the space occupied seating at the edges of the garden beds or in any available shade. It was clear that seating (even steps and garden bed edges served this purpose) and shade were the in-demand amenities at the site. Overall, while the site was incredibly busy it was very orderly and not activated through program or event. It appeared the space filled a social purpose for families to

participate in community life. Police were observed at the site but remained within booths and did not move through the Plaza or otherwise actively patrol or monitor the space.

Visit 2: Wednesday June 28. 15:30

The site was fairly quiet, in contrast to the previous day. There was police presence once again at the dedicated Tourist Police booths. At this site visit I paid 2JOD ($4 AUD) to gain access to the Roman Theatre. The ticket booth for the theatre is located on the far side of the Plaza. Once the ticket had been purchased, I walked to the gate to access the Theatre. Three uniformed guards were checking tickets at the entrance of the theatre. The same ticket allowed access to the Odeon and the two small museums housed in the Theatre's stone foundations.

Visit 3: Saturday July 1. 19:10

Unsurprisingly, the site was busier on this weekend day than it had been earlier during the week but still quieter than Eid. Street traders are once again in the site. There is no obvious regulation controlling street traders although they are orderly. There were multiple types of police in different uniforms – the blue of the tourist police, one in blue with red trim, and three officers in black defensive clothing. The Roman Theatre is closed; the gate is locked and the ticket booth is unmanned. While there are still some people within the Theatre they are being allowed out of the space individually by one of the guards located at the gate. Clearly, the Theatre part of the site operates according to opening hours. This was the first site visit where I observed cleaning staff, who wear a brown uniform and are employed by 'Greater Amman Municipality.'

Visit 4: Sunday July 2. 16:10

In Jordan, the weekend is Friday and Saturday, so this was the first day of the working week. The site was very quiet, there were approximately 20 people in the whole site (again, families or single men), and people walking through the space as a shortcut to surrounding streets but not dwelling in it. A sliding gate at the southeast corner is slightly open, providing additional site access. The western side of the site is busier and more occupied than the east side. This is possibly due to its having better pedestrian access and the fact that there is more shade.

Visit 5: Tuesday July 4. 10:00

As observed at previous visits, the site is occupied by family groups or individual men. The entrance to the Theatre is again guarded (by more than one guard), this is the only part of the site that has been guarded with controlled access throughout all my visits. I observed a single police officer – dressed in

black armoured/defensive clothing rather than the light blue of the Tourist Police – circulating through the space.

Visit 6: Wednesday July 5. 13:25

Users of the space are either walking through it as a shortcut to get to another place or are resting (simply *being*) in the space. There are no events or activities so people are being in the space not doing in the space. I observed several temporary barriers being stored in the space in preparation for a future event. During this visit, I once again observed that most occupiers of the space were single men or groups of young men. However, at this time I did observe a group of mixed gender young people and some small groups of women.

6.2.2 Security Measures

Measurement Tool

Feature	*Level*	*Criteria*
Panoptic Devices		
CCTV	L	None present
	M	One camera
	H	**Two or more cameras**
Private security personnel	**L**	**None present**
	M	One guard
	H	Two or more guards and/or vehicle
Police presence	L	None present
	M	Two officers
	H	**Three or more officers and/or vehicle and/or station**
Ease of passive surveillance	L	No provision for dwelling and observing space
	M	Part of the space is easily observable from some vantage points
	H	**The whole space is easily visible**
Regulatory Procedures		
Visible rules	L	None present
	M	**One visible sign / posting of local or special rules**
	H	Two or more visible signs/postings of local or special rules
Enforced rules	L	Local regulations, enforced by police
	M	Local regulations, visibly enforced by police and private security
	H	**Special regulation, visibly enforced by police and private security**
Behaviour rules implied by design	L	None present
	M	**One or two examples**
	H	Several obvious examples throughout space
Site branding	L	Site has no naming or representational branding
	M	Site has naming or representational branding but not both
	H	**Branding through naming and representational measures**
Fortress Measures		

Physical access	L	No barriers or gates and access is visible and easy
	M	No barriers or gates but access not highly visible and/or easy. Or, highly visible access but with gates or barriers
	H	**Barriers and gates, access not visible and/or easy**
Segregation	L	No areas of conditional use
	M	One area restricted to certain people or uses
	H	**Two or more (or one large) area of restricted access and use**
Hours of operation	L	Open 24 hours, 7 days including holidays
	M	**Partly open past business hours and/or on weekends**
	H	Open only during business hours
Privatisation	**L**	**Publicly owned, publicly managed**
	M	Publicly owned, privately managed
	H	Privately owned, privately managed

6.2.3 Panoptic Devices

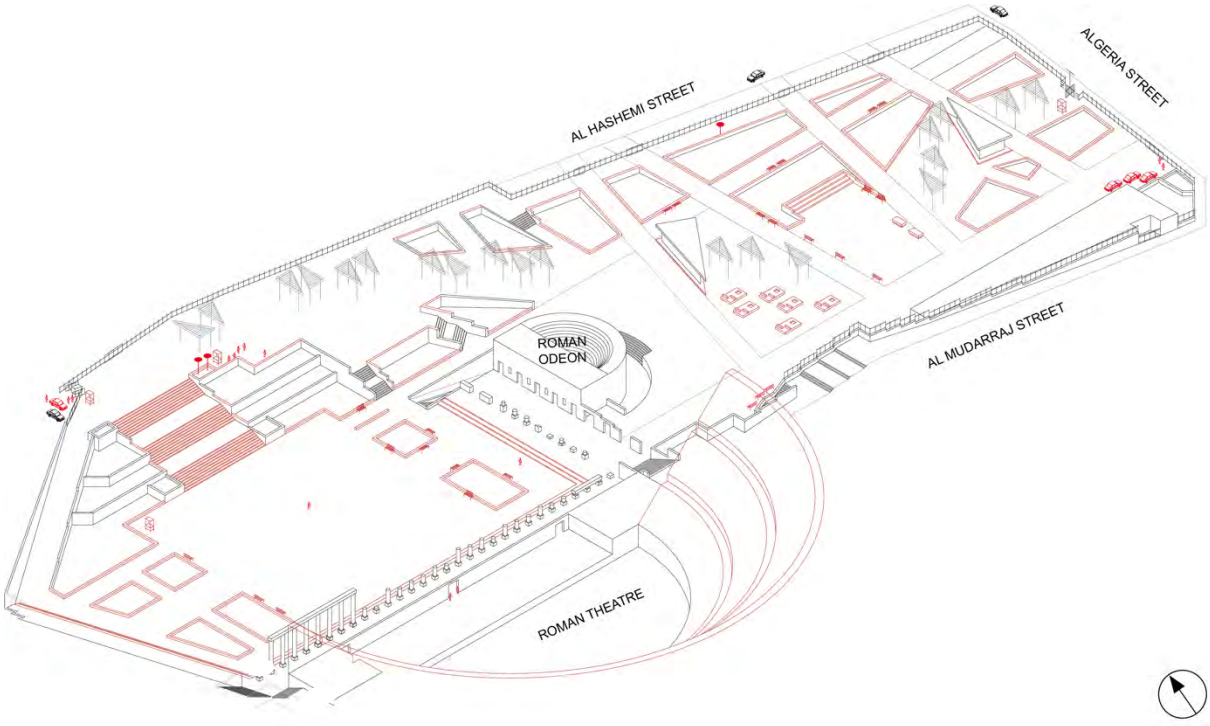


Figure 6.10: Diagram of panoptic devices, in red.

Presence of CCTV

CCTV was evident but was not extensive. Three cameras were observed within the site, with five more outside the site with possible views into the Plaza. Anecdotal discussions with local urban planning academics suggest that CCTV isn't widely used as a security device in Amman and is mostly used as a traffic control device.



Figure 6.11: Two of the three CCTV cameras within the site.

Private security personnel

No private security personnel were observed at the site at any time. In fact, private security was not observed in the wider city of Amman either which is an interesting contrast against the other two case study sites. There are different divisions of police who perform a dedicated security role at certain sites such as at embassies. Tourist groups with a guide were, in a sense, accompanied by private security as the tour guide tends to serve in that function to a degree as well. However, that is security of a particular group and is not applied to the site.

Police presence

There was an extensive police presence at the site, evident during all the site visits. The police force in Amman is broken into different divisions such as traffic and tourist police. It is the tourist police who are most relevant to the site. These police members seem to be there to provide reassurance to tourists. The site is furnished with several police booths which were frequently occupied by officers observing the site. Outside the boundary of the site, along Al Hashemi Street at the north-west turnstile entrance, is a single vehicle parking space delineated by low spherical bollards which was exclusively used by police vehicles. This space was not always occupied, however, and no patterns of occupation could be determined that would explain when or why a vehicle (and its officers) might be located there.

Passive Surveillance

Passive surveillance is encouraged throughout the site. The Roman Theatre provides an obvious and effective site for passive surveillance of the site by the public. It holds 6,000 people on raised seating with panoramic views across the entire Plaza and surrounding area. The smaller Odeon theatre in the centre of the Plaza also affords extensive views from the raised seating. However, both buildings require a ticket to enter. So, while the Theatre and Odeon provide exceptional passive surveillance opportunities this function is limited. In front of the media wall pavilion is a small set of stepped, amphitheatre style seating which encourages an audience within the south east of the site. Similarly, the topography of the site which is generally lower than the surrounding streets means that the space is easily observed from outside. Amman's extremely steep topography means that the site can be observed from nearby hills. Certainly, the site has much higher visibility (from outside to in) than both Trafalgar and Federation Squares.



Figure 6.12: Excellent views of the entire site are afforded from the top of the Roman Theatre

6.2.4 Regulatory Procedures

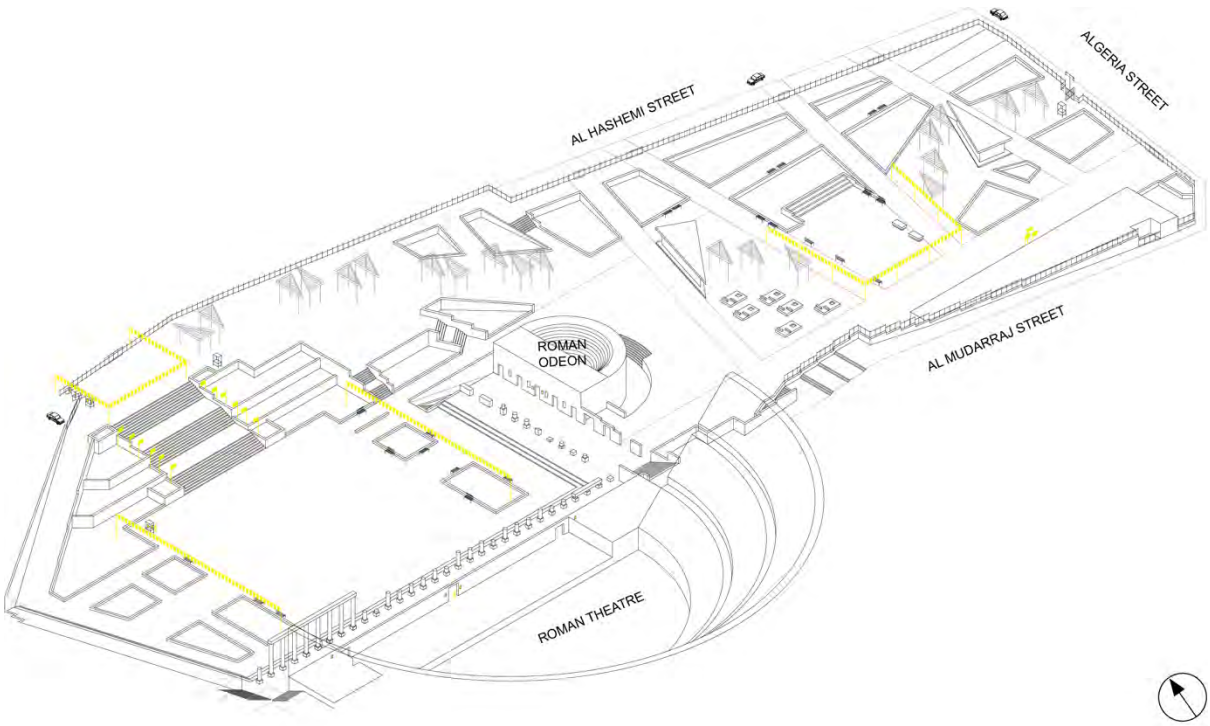


Figure 6.13: Diagram of regulatory procedures, in yellow.

Visible behaviour rules

There was limited advertising of spatial rules and it is not clear from my research if there is site-specific municipal legislation that governs the way the space may be used. At the two defined turnstile entrances to the site access was visibly delineated into 'entry' and 'exit' written in both English and Arabic. There was a sign at the Roman Theatre entry fence pointing back to the ticket booth. Behaviour in the site was not visibly constrained in terms of the types of activities that occur in the space or whereabouts they could occur. Throughout the site, wayfinding signage directs visitors to the key places within the Plaza Park and the surrounding area (such as the Roman Nymphaeum). Most signage is written in both Arabic and English, indicating that the intended audience is both locals and foreign tourists. Some signage was written only in Arabic, indicating that the intended audience of that information was only local people. Wayfinding signs, however, are not necessarily rules about what behaviour is permitted in the site.



Figure 6.14: Wayfinding signage in English and Arabic.

Behaviour rules actively enforced

The only active enforcement of spatial rules I observed was the selling and checking of tickets giving access to the Roman Theatre, Odeon and museums.

Behaviour implied by design

Spatial design did little to indicate preferred behaviours. Where this did occur it tended to be through other control mechanisms, such as fences and turnstile gates indicating how and where to access the site. Turnstile entrances (at the east and west) suggested an 'entry' and an 'exit' to the site; fences throughout indicate which areas are accessible – but these are fortification measures added to the space and are not intrinsic elements of the spatial design. The spatial design uses ground material, shading devices and edges to suggest places to sit and paths to walk, as well as where to look (as

discussed above under Passive Surveillance). The overall design is not highly suggestive of preferred behaviours.

Site Branding

The site is highly branded through its naming, signage and extensive use of national and municipal flags. Users are constantly reminded of who is responsible for the site and what it represents. Clearly the naming of the place – Hashemite Plaza and Park – for the Royal family, immediately brands the place as a site that valorises the royal family and marks it as a permanent remembrance of the family's contribution to Amman and the nation. The location is also significant, along one of the city's most important thoroughfares, Al Hashemi Street, in downtown and nearby to the Grand Husseini Mosque which is the spiritual and social centre of the city. Hashemite Plaza's siting in the social and historical centre of the city links the Hashemite Family to a historical line of urban development that runs back to the Roman era, the Nabateans and earlier. These past ruling cultures are important, and they provide democratic and religious legitimacy. Within the site, the government's role is further emphasised by the extensive use of flags for both the nation and the Greater Amman Municipality. The 'Media Wall' is also used to project government logos and messages. In this case, the branding of the site is not a direct form of behaviour regulation, but it does act as a reminder to users of who is responsible for the site and which authorities are involved with monitoring and securing the place and providing planned events. This knowledge tends to make users self-censor their behaviour and moderate their activities according to an inferred code of conduct. Site branding is a subtle form of spatial control that acts similarly to privatisation in that it gives the place an identity and it is not a blank space on which the public may craft meaning. By limiting people's ability to ascribe their own meaning on to the place in an extensive way branding ensures that the place is represented as somewhere that people may use rather than somewhere they may own.

Prior to the current design of Hashemite Plaza, the site was used for public executions both by the British Mandate and the Hashemite Monarchy. Executions are now carried out within prison grounds. In this case, the site represents the ultimate form of political power used for control in the name of security. Symbolically carried out in front of the Roman Theatre, the site was a literal stage on which power was presented to the community. As with all forms of site branding, the intended audience is critical in understanding how the space displays power as a control mechanism.



Figure 6.15: National and municipal flags within the site.

6.2.5 Fortress Measures

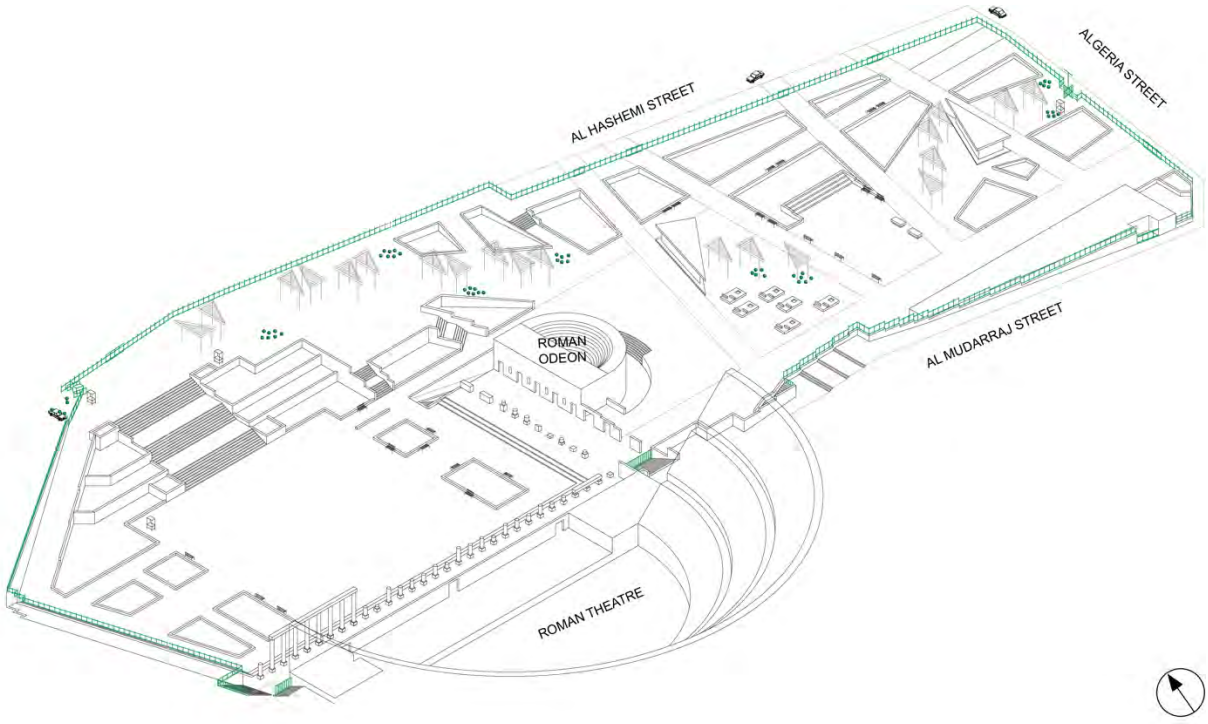


Figure 6.16: Diagram of fortress measures in green.

Physical access

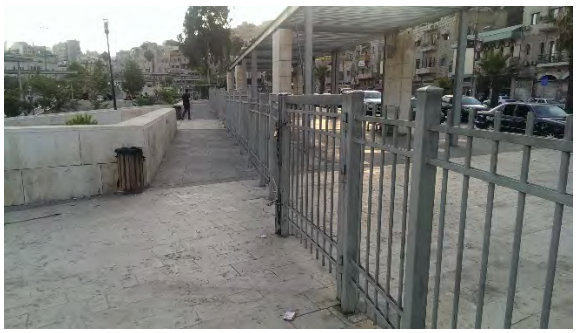
Access to the site is limited and highly controlled, with the possibility of its being closed entirely. The site is encircled by a fence on all sides and running in front of the Roman Theatre (which otherwise acts as a physical boundary enclosing the site to the south) with seven gates located around the perimeter. There are two main entrances from Al Hashemi Street, at the northeast and northwest,

both via turnstiles. At the southeast, there is a vehicle entrance point with a sliding gate that allows access to pedestrians or vehicles monitored by a manned police booth. There are three gates south of the media wall pavilion and a staircase leading down into the site. The staircase is gated but always observed to be open during fieldwork. The other gates along the south boundary at the pavilion were locked. There are staircases with gated entrances at either side of the Roman Theatre. To the west of the Roman Theatre gate and municipal staircase lead out and up to the Municipal Library. While only a limited number of entrances were open during fieldwork visits more gates could be opened and utilised as required. Along the north boundary of the Plaza there were two large gates that aligned with vehicle crossovers to Al Hashemi Street and wide, ramped spaces between the garden bed areas inside the Plaza. While these gates remained locked closed at each site visit, they were clearly designed to allow vehicle access deep into the site. Vehicle access was also made possible at the southeast corner (Algeria and Al Mudarraj Streets) via a large sliding gate.

Within the Plaza, there are several clusters of small, concrete spheres which do not appear to prevent access or limit vehicle movement in any way. They are located within the bounds of the site and beneath the shade structures, thus serving little function other than decorative. Garden beds and steps are of concrete and could serve a hostile vehicle management function. However, as the positioning of gates, and ramps from the perimeter into the depth of the space suggests that vehicle access is required, any hostile vehicle could easily follow paths designed for authorised vehicles. Control of physical access is highly concentrated at the site perimeter rather than through the centre of the space.



Figure 6.17: Left – fence and gate along the south boundary. Right – turnstile at the east boundary.



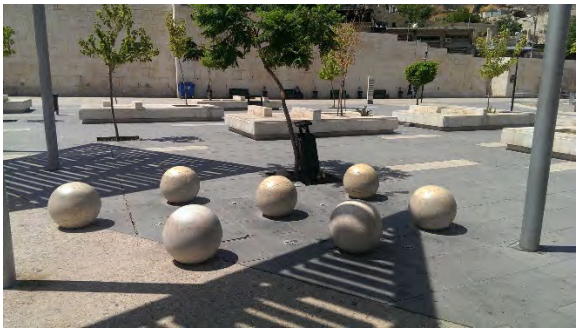


Figure 6.18: Vehicle accessible gate in the north boundary fence. Right – small, spherical bollards and concrete planters that appear somewhat random.

Segregation

The site is delineated into distinct areas – the east and west portions, and the Roman ruins. These spaces are not defined as belonging to a certain group of people, however, the Roman buildings – the Theatre and the Odeon, as well as the small museums within the Theatre's foundations – were segregated. Segregation is via the sale of tickets and is, therefore, optional and not enforced on the users of the space. The Theatre is sometimes used for ticketed public concert events such as the annual al-Balad Music Festival or Eid festival concerts. Similarly, the ticketed access to the Theatre and Odeon during the day segregates the space into those who can, and are willing to, pay and those who cannot.



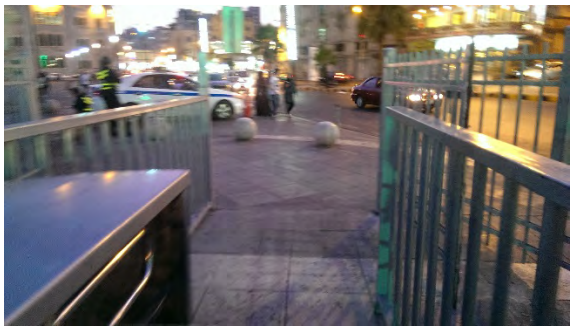


Figure 6.19: Designated police vehicle area just outside the boundary of the site. Left – unoccupied but marked by bollards. Right – at night with police vehicle and officers.

Hours of operation

During site visits I did not observe Hashemite Plaza to be closed at any time. However, the site's enclosing fence means it is possible for this to be affected. The possibility of closure (or indeed, the closure of the site in response to specific events in the site, planned or otherwise) is not the same controlling function as restrictive hours of operation at the site. Limiting the hours of operation and having them clearly defined regulates the site as a daytime place or a weekend place, rather than an open place that sometimes closes if there is a specific reason to do so. The Roman Theatre is closed

to public access at night, as is the Odeon and the museums, however the remainder of the site is open day and night.

Privatisation

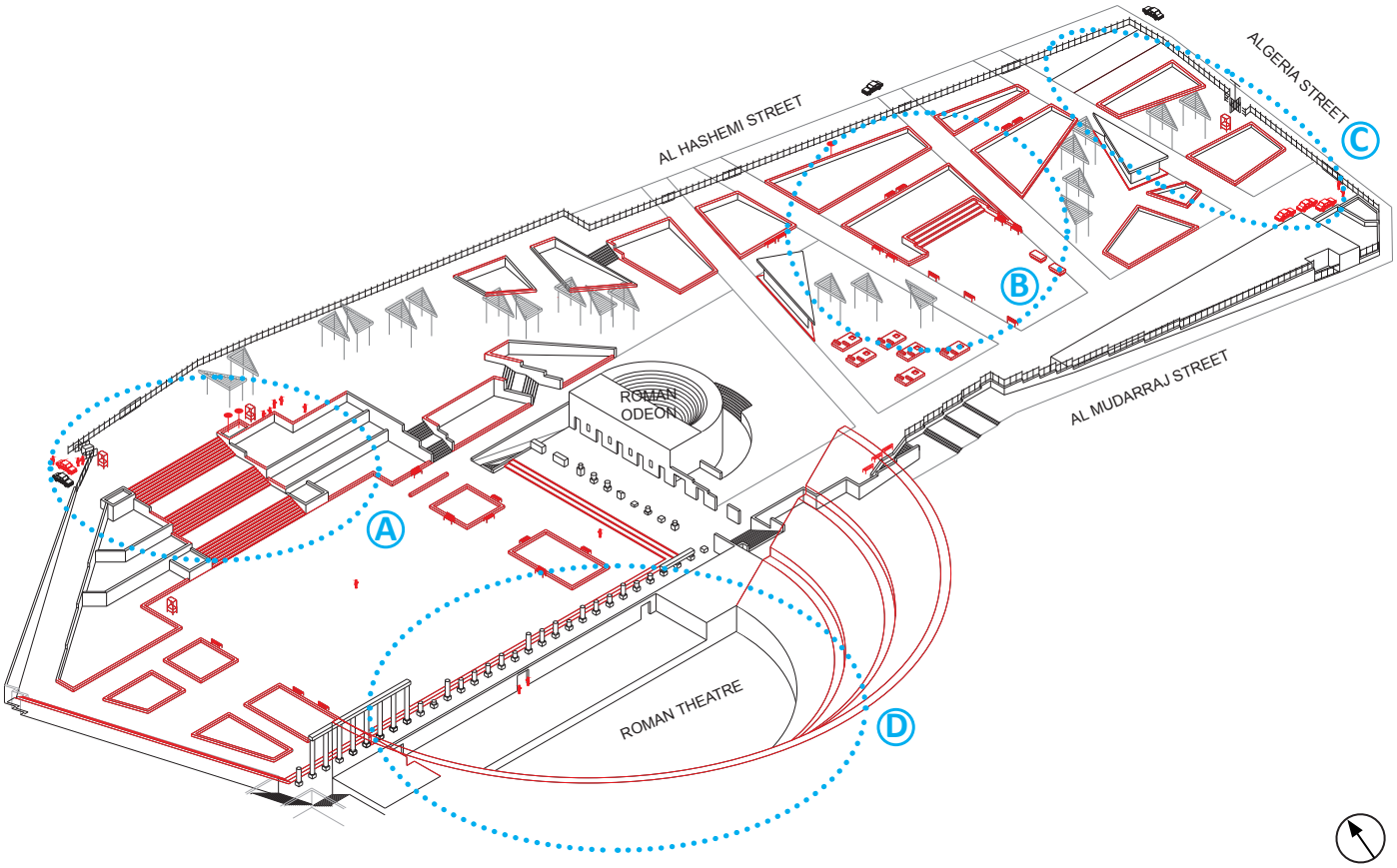
The site is publicly owned and managed by the Greater Amman Municipality Privatisation is not likely to be a relevant controlling strategy at this site. However, it is worth considering what controlling advantages are afforded by maintaining centralised authority over the space. By not outsourcing security to external providers, the Greater Amman Municipality and the Jordanian Police retain all control authority over the space.

6.3 Analysis of Control Measures

The following section reviews the operation, and effect on the site, of each category of security measure in turn. It follows the method established at the previous chapters of using isometric maps of sub-areas to generate new knowledge and understanding.

6.3.1 Panoptic Devices

CCTV is not widely used at the site (nor in Amman generally in fact) most of the active site surveillance is carried out by police and military officers. In casual conversation with locals it was suggested to me that CCTV is mainly used in Amman for traffic control rather than monitoring public spaces. This is in contrast with both Trafalgar and Federation Squares that rely heavily on CCTV surveillance. There are, however, substantial passive surveillance opportunities built into the site, and a police and military presence observed during all visits. Views into the site from outside are possible from most points around the perimeter, made easier by the metal paling fence and topography. Passive surveillance of activity in the Plaza extends out beyond the site boundary, the surrounding streets are generally higher than the low-lying Plaza. The site is located south of the Amman Citadel hill, and there is a very steep incline down towards the Plaza. Almost the entire site can be observed form the Citadel Hill, and parts of it are easily viewed from other surrounding hills. Amman's topography is such that the Hashemite Plaza is located in a valley and views into the Plaza and opportunities for passive surveillance from outside the site are possible from a substantial distance. This extensive visibility into the Plaza is not found at the other sites, however it is not exactly a unique condition as surveillance operates as a networked system extending well beyond site boundaries. While surveillance operates as a wider system, this analysis is interested in the impacts of surveillance on a particular area or part of the system.



PANOPTIC DEVICES AT HASHEMITE PLAZA

- CCTV
- Police presence including vehicles
- Military presence
- Private security
- Provision of passive surveillance





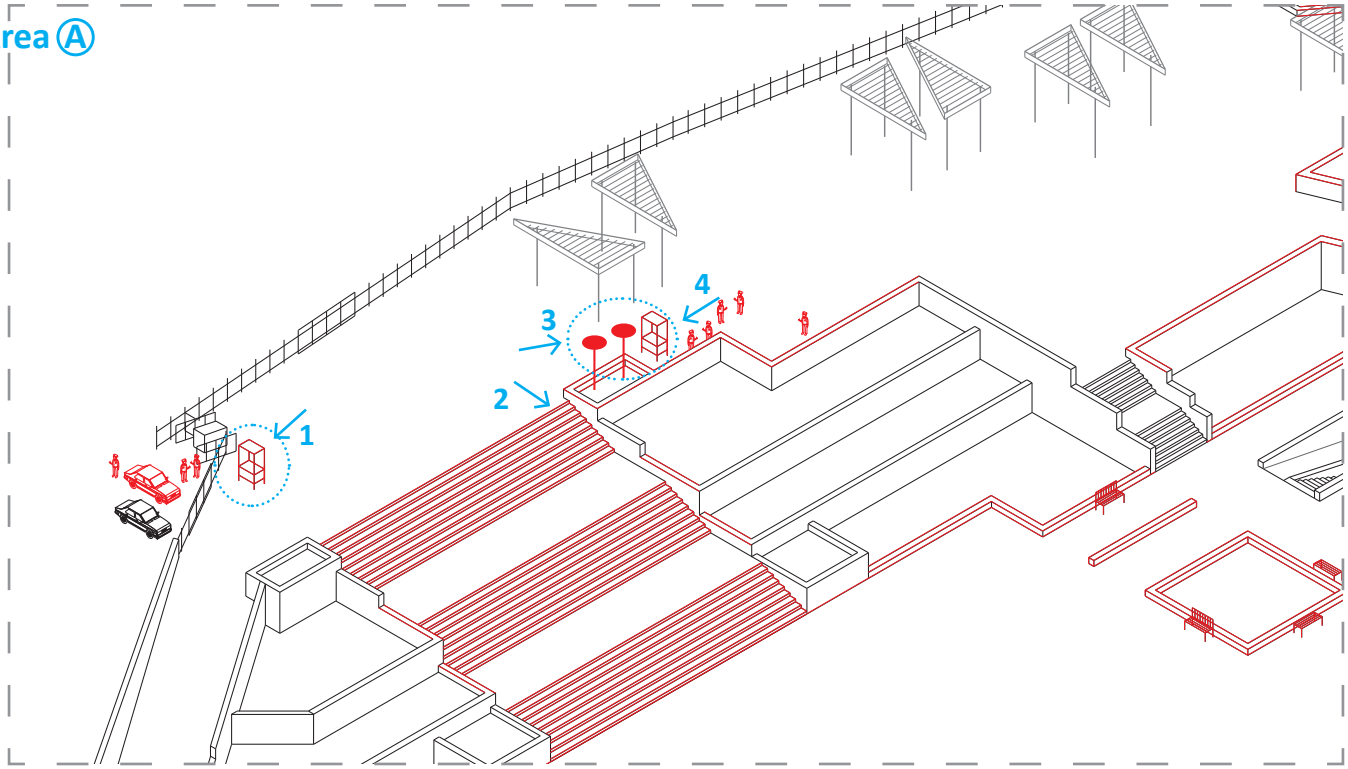



Area A

Area A is at the north-west of the site and was observed to be the most heavily occupied area during site visits. This area has two CCTV cameras, a near constant police presence and generous provision of passive surveillance opportunities. Police officers and vehicles were observed just outside the site boundary next to the turnstile entry and stationed at the two small booths in this area. Police presence acts as a preventative and a responsive measure. Police officers patrolling the space, observing behaviour and events signals to users that they are being monitored and any regulations at the site may be easily enforced. Constant presence of active surveillance both inside and outside the space speaks to state authority and the possibility of force. As Dovey has explained, authority is the most stable and pervasive form of 'power over' and it is indicated by uniforms, police cars and the like. [408] Police and military in Hashemite Plaza are symbols of state power whose authority is not questioned. In this way compliance is achieved, and power enforced, simply through the presence of recognised authority and the knowledge of their supervision.

This area is distinctive for the long, open viewlines that are possible across the site, supporting passive surveillance. Views are enhanced by the site's natural topography. This area is above the large open square, the raised position provides excellent views across the space. This is a similar condition to Trafalgar Square, where the North Terrace allows open views into the main square below. Both sites also feature grand stairs and retaining walls that are used as places for visitors to dwell and watch the activity in the site below. This condition is mirrored at the south of the site where the Roman Theatre provides exceptional views and opportunities to observe the site. Long views across the site are also made possible by the lack of visual obstacles such as trees and structures in the open space. All the landscaping is located at the sides of the space, and the trees are not very large or full so do not block views. The provision of places to dwell and clear sightlines in this area provide a security benefit as it supports passive, active and electronic surveillance of the largest area of the site. As with the other case study sites, surveillance is a coercive form of power that works by implying authority (that is internalised in the subject) and the potential for force. The spatial effect of this high level of visual access is to expand the space, make it feel larger and more open than it is. This upper terrace area visually connects to all other parts of the site and so the effective space is increased well beyond the defined boundary of this area. Visual connections between spaces assist in expanding the comprehended area of the site and reducing spatial isolation.

[408] Dovey, *Framing Places: Mediating Power in Built Form*. P14.



DETAIL VIEW: PANOPTIC DEVICES



1: Police booth and officer presence at western turnstile entrance



2: The large steps leading down to the open gathering space, and the side retaining walls, provide good opportunities to dwell and observe the site.



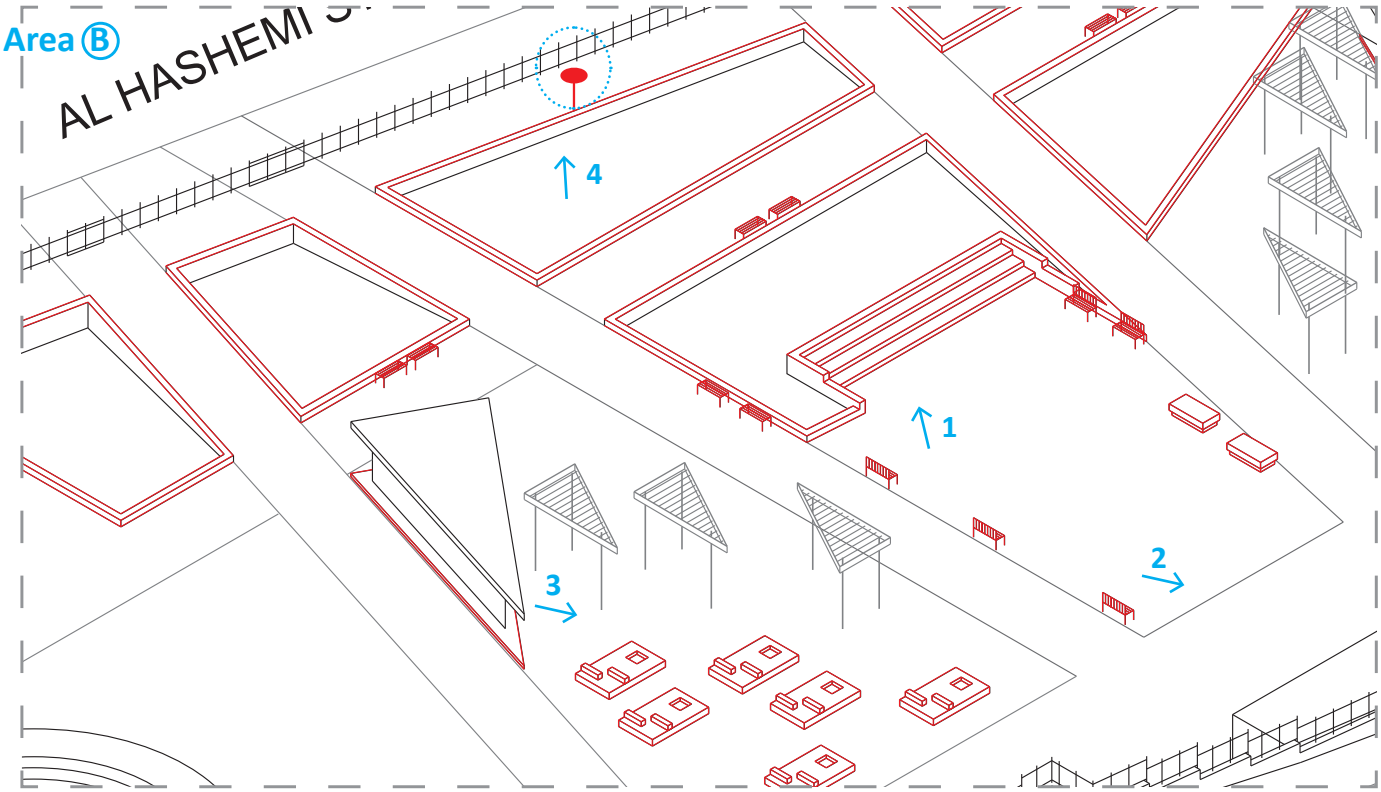
3: CCTV cameras atop a pole at the north of the site. Note also the viewlines across the site from this location.



4: Police booth at the top of the large steps. Usually seen with one officer inside the booth and a small group stationed outside the booth.

Area B

The east half of the site does not enjoy the same long, open vistas that are found at Area A and the western half of the site. Views are closer and there are various structures and trees blocking long views. Nevertheless, both active and passive surveillance occur in this area, even though it is a much quieter space with fewer people observed using it. There is a gentle slope down from the north and a series of retaining walls around garden beds that provide opportunities to dwell and observe activity in the site below. There are timber seats and benches built into the garden bed retaining wall areas at the north. While retaining walls provide opportunities to dwell that is a secondary function. The timber seats, on the other hand, are intended specifically to provide a place for people to dwell in the space. Passive surveillance is built into the site in this area and is a deliberate move that has security benefits of both increasing the occupation of the site (well occupied sites improve the perception of safety and security – they look and feel safer) as well as increasing passive surveillance and opportunities for the site to be monitored. Further examples of this include a cluster of six low masonry seat structures that incorporate trees, metal bench seats and amphitheatre-style concrete bench seating in the centre of the space. While Area A is open and supports long distance views, this area goes further in encouraging people to dwell and remain in the space. As seen at the other case study sites, passive surveillance works because it enlists users of the space into acting on the state authority they have internalised. It seems voluntary, but it is the effect of coercive power of authority that is embedded into both space and social structure.



DETAIL VIEW: PANOPTIC DEVICES



1: Small amphitheatre type seating facing towards a small open square and big screen. The square is also framed by bench seats on two sides.



2: The big screen facing the amphitheatre seating is used for advertising and information about events in the Plaza. In this photo the image on the screen is scrambled.



3: Low masonry structures that serve as planters and as seats. These encourage people to dwell in the space and observe goings on.

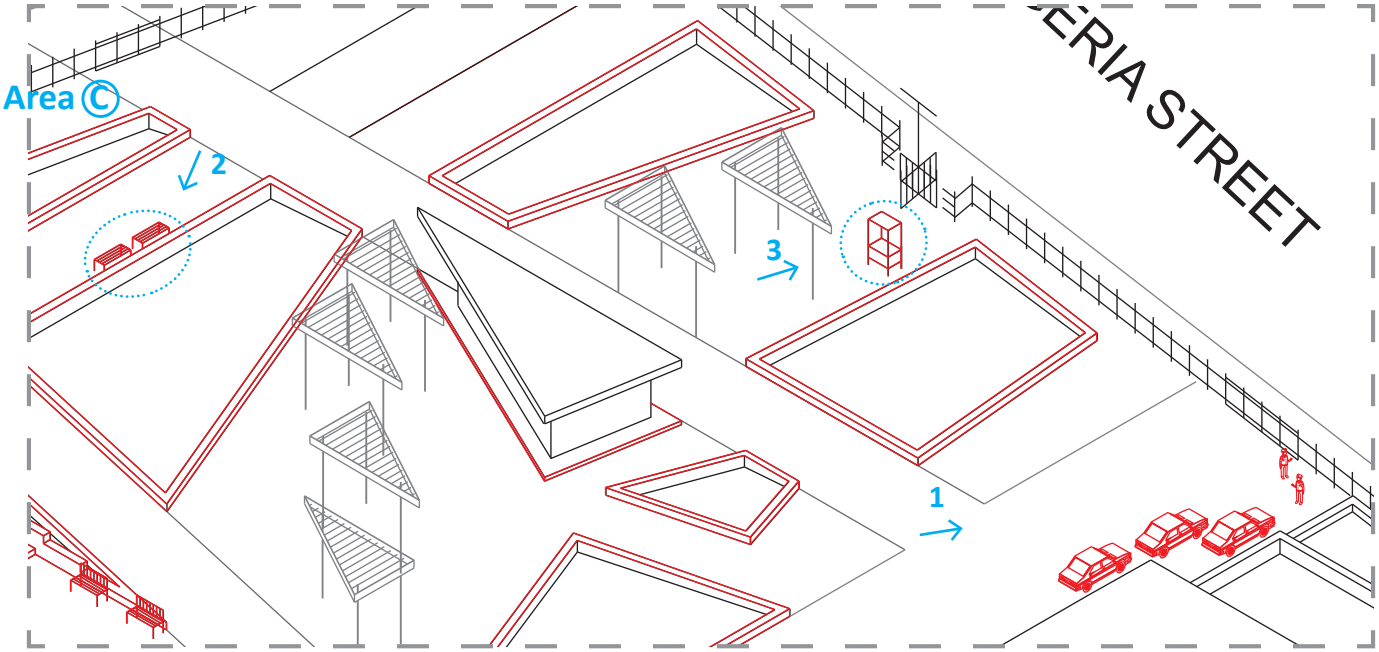


4: High level CCTV camera along the north boundary of the site.

Area C

While the main open square and its relationship with the Roman Theatre has been discussed, it is worth considering the impact of this space more specifically. It is a unique situation across all three sites; the Roman Theatre turns the public square into a stage. The curved and tiered theatre seating focuses all eyes into the centre of the open space within the west half of the site. While the other two case study locations support passive surveillance, it is not to the degree that is seen here with the intentional spatial arrangement of open stage/square in front of a theatre. This relationship of stage/performer to theatre/audience is mostly a symbolic arrangement as the theatre is rarely filled and does not provide a consistent 'audience' presence. The arrangement of the open space in front of the theatre is suggestive of its historical importance, and its former use as a place for political gathering, parade and public executions. There is a historic lineage of public performance, shared experience, and displays of power and authority that is unique within the wider city. The memories inherent in the Roman Theatre suggest past power, and that memory is utilised by authorities to suggest potential future power.[409] This condition is supported by, but not replicated at, the Odeon. Despite the smaller Odeon theatre having the same historic function as the Roman Theatre, it lacks the spatial presence and does not afford the same long views over the site. Because it is smaller, the Odeon does not provide a comparable backdrop for political and public activities. While the theatre may not be filled with an audience, it is a visual reminder to users of the space that they are observed. When in public, a person's behaviour can be watched as if they were on a stage. Visitors to the space internalise this, censoring and modifying their behaviour to suit social norms.

[409] Ibid. P12.



DETAIL VIEW: PANOPTIC DEVICES



1: Police booth and vehicles at the south-east corner of the site adjacent to an open gate.



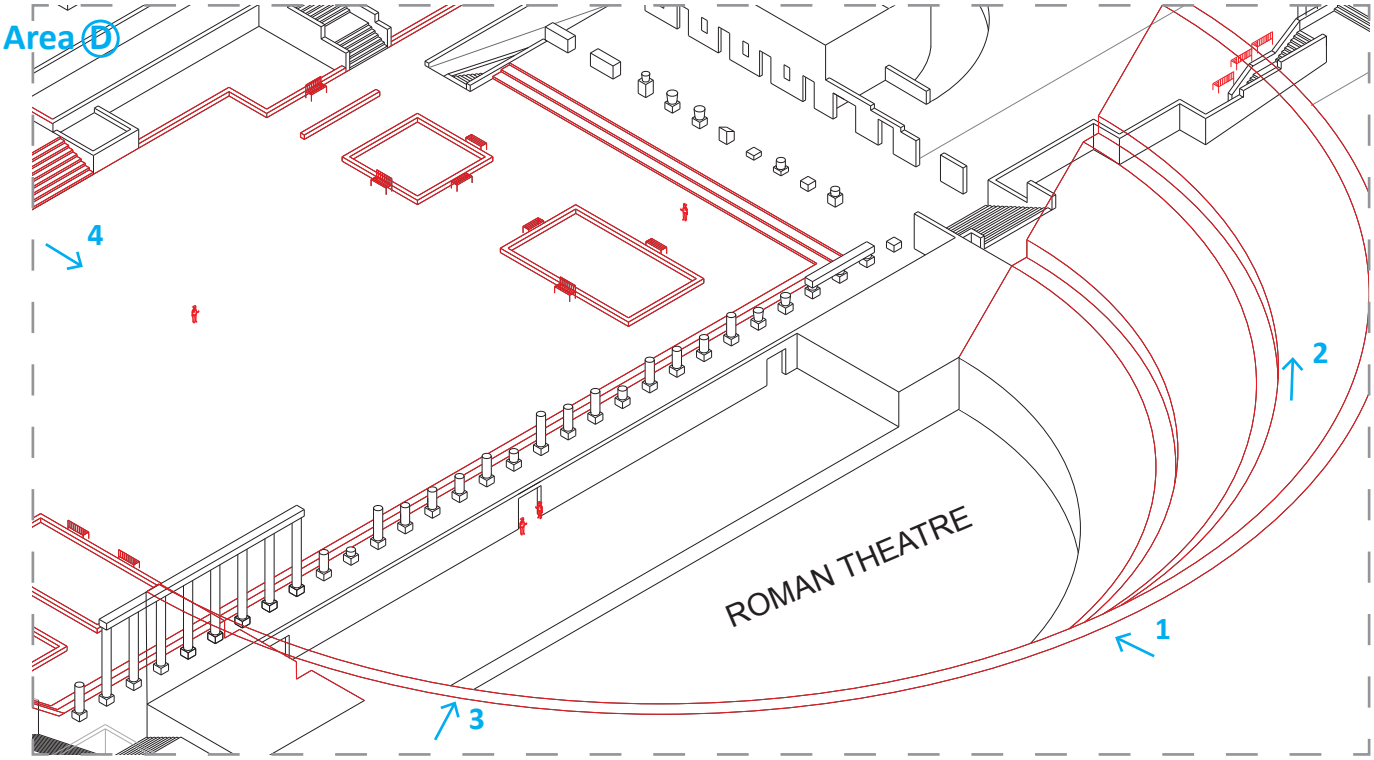
2: Seating provided at various locations along the north of the site provides opportunities for dwelling and observing the space.



3: Police booth located at the turnstile entrance. Not always manned, when in use it supports survaillance of who is entering and exiting the space.

Area D

Hashemite Plaza was constructed around, and with regard to, the Roman Theatre. It is intimately connected with the meaning, form and purpose of Hashemite Plaza creating a relationship between built forms that is not seen at the other case study sites. There is a vital and close dialogue between the Plaza and the Theatre. This relationship is stronger than that which exists between the Odeon and the Plaza, and possibly more so than that which exists between the Odeon and the Roman Theatre. They give meaning to each other. As this relates to the methods and elements of control and security at Hashemite Plaza, it is most evident in regulation and surveillance. The Roman Theatre is a unique spatial condition that is not found at the other sites. Amman's topography, and the enormity of the Theatre, means that the entire site can be observed an understood from above. While Hashemite Plaza is, by far, the largest of the three case study sites, it is very easily comprehended and can be taken in in a single glance – if viewed from the right place. The views of the site afforded by the Roman Theatre are quite incredible provide an ideal opportunity for surveillance activity. Passive surveillance opportunities are extensive but the potential for active surveillance is similarly extensive but seems to be an unexplored opportunity.



DETAIL VIEW: PANOPTIC DEVICES



1: The Roman Theatre provides exceptional views across the west half of the site. The theatre seating encourages dwelling and passive observation of the Plaza.



2: Views to the east half of the site are very good, if somewhat obscured. The shole site can be seen in one glance ffrom the Roman Theatre.



3: Tiered amphitheatre seating provides a range of viewing locations and angles to different parts of the site.



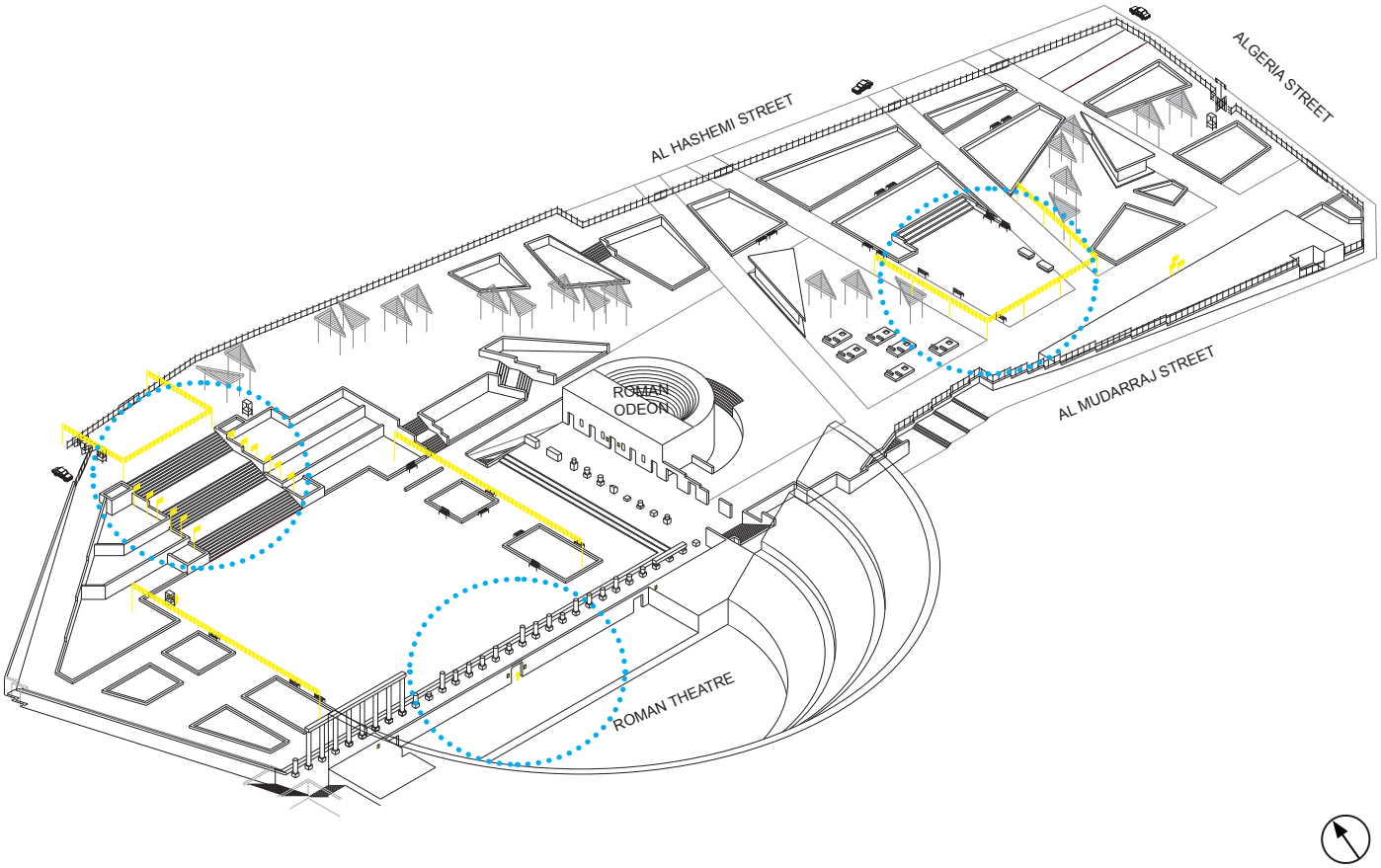
4: View of the Roman Theatre from the main gathering part of the site, showing the scale of the Theatre.

6.3.2 Regulatory Procedures

Visible regulation measures include branding, site programming and spatial segregation. These site-specific measures work alongside national and local laws which are not visibly expressed, although armed police and military officers (with the power to enforce national and local laws) were observed patrolling the site. Spatial segregation was seen operating in several distinct ways. Firstly, as ticketed access to the two ancient Roman buildings within the site, and the two small museums located underneath the Roman Theatre. Secondly, segregation is used to restrict access to the whole site when concerts and events are held at the Roman Theatre. Ticketed access to the Roman sites and the museums is mostly used by tourists, while concerts and events at the Roman Theatre were observed to be events targeted / advertised towards local people. Police presence at the site consisted of officers walking around the area and patrolling, vehicles parked at the north-west and the east, and small police booths where several officers were stationed observing the area.

Preferred site identity is formed at Hashemite Plaza through demonstrations of the city and the nation as kingdom through site naming and flags. As Janset Shawash explains in his PhD thesis, Amman's downtown area (al-balad) is a symbol of the wider nation.[410] Al-balad, is a physical representation of State. This condition extends to Hashemite Plaza, located in al-balad, and its physical landmarks particularly the Roman Theatre. The inherent symbolic capacity of these spaces to link to a shared understanding of the nation can be used by the State for legitimacy and identity.[411] Hashemite Plaza, therefore, spatialises a relationship with existing conceptions of past, place and national identity. This condition is specific to Hashemite Plaza and demonstrates the type of relationship between place and identity that branding seeks to fix at both Trafalgar and Federations Squares.

[410] Shawash, "Al-Balad as a Place of Heritage: Problematising the Conceptualisation of Heritage in the Context of Arab Muslim Middle East." P178.
[411] Ibid. P208.



REGULATORY PROCEDURES AT HASHEMITE PLAZA

- Flags
- Restricted access signs
- Ticketed areas - spatial segregation
- Site programming
- Local, national and site specific laws and regulations operate across the site and are not visibly expressed









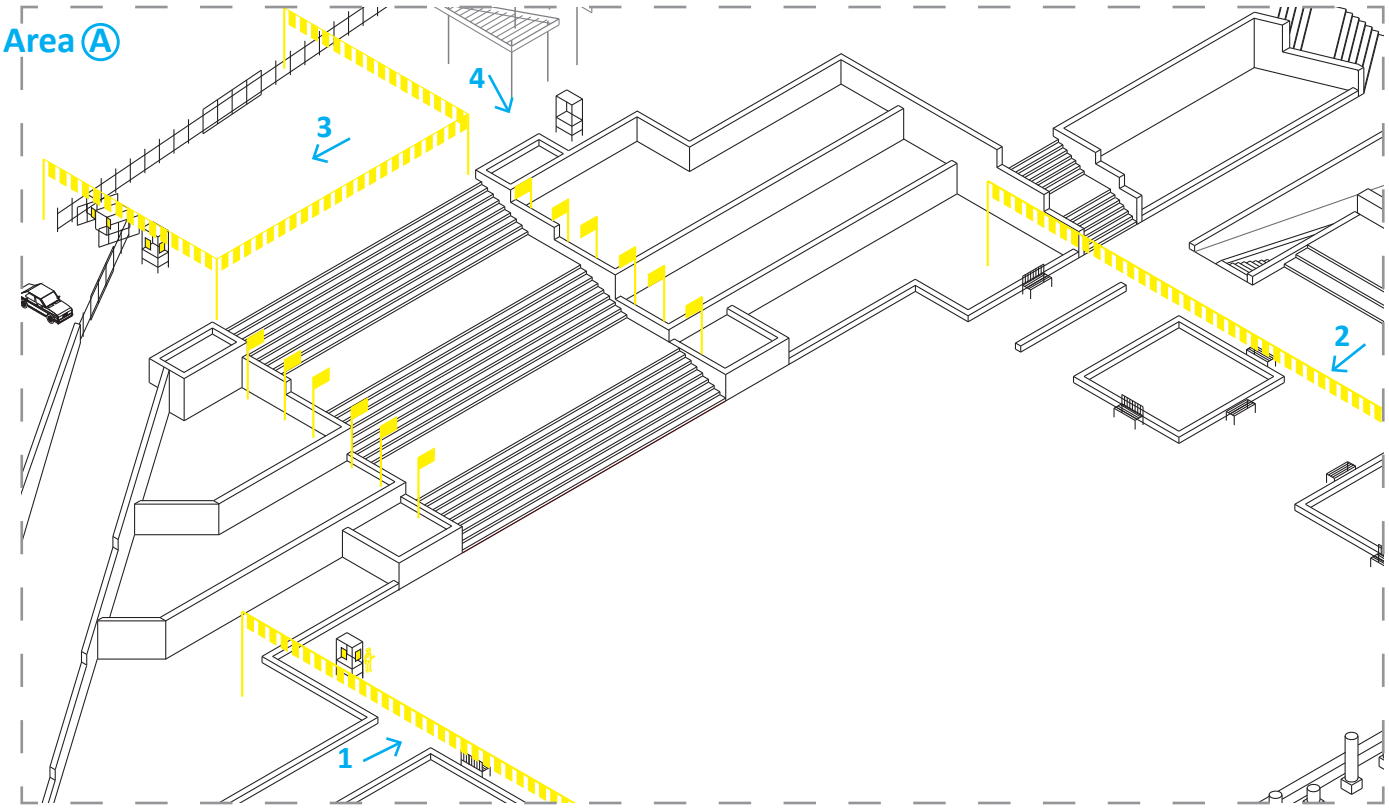




Area A

This part of the site is visually open and comprises a large staircase from the street level down to the main open square space of the site, which forms a plaza in front of the Roman Theatre. This space forms a respectful approach and space around the historic site and, to a lesser degree, the Roman Odeon on the east side. The space here is symbolic of history, former powers, and the longevity of the city through centuries. The installation of national and municipal flags in this space is branding, visually marking this space as belonging to / controlled by Greater Amman Municipality and the Jordanian Royal Family. Locating the flags to frame the symbolic space in front of the ancient Roman sites visually connects the present-day authorities with the city's Roman past. In this case, the flags legitimise current authority by linking it to an Ancient Roman lineage and branding the site with a defined authority and identity precludes the emergence of competing identities for the site. The security benefit of branding is that it is a visual reminder of authority that then suggests appropriate behaviour to those in the space. Branding is a preemptive strategy because it aims to stop the emergence of unwanted behaviours and actions within the space. Branding is a subtle control strategy that works because users monitor their own behaviour. Branding, in this case, is an example of a ritual of State legitimisation. Symbols of authority, such as flags and uniformed military personnel, are crucial to the legitimation and exercise of power and are embedded into the space.[412] This is enhanced by the historical connection to the Roman-era, giving the current regime historical legitimacy through association.

[412] Dovey, *Framing Places: Mediating Power in Built Form*. PP14-15.



DETAIL VIEW: REGULATORY PROCEDURES



1: Bunting flags at high level between the staircase and the Roman Theatre, framing the main open part of the site and the Roman Odeon at the east (in the background).



2: View looking west across the main open square, showing flags across the site.



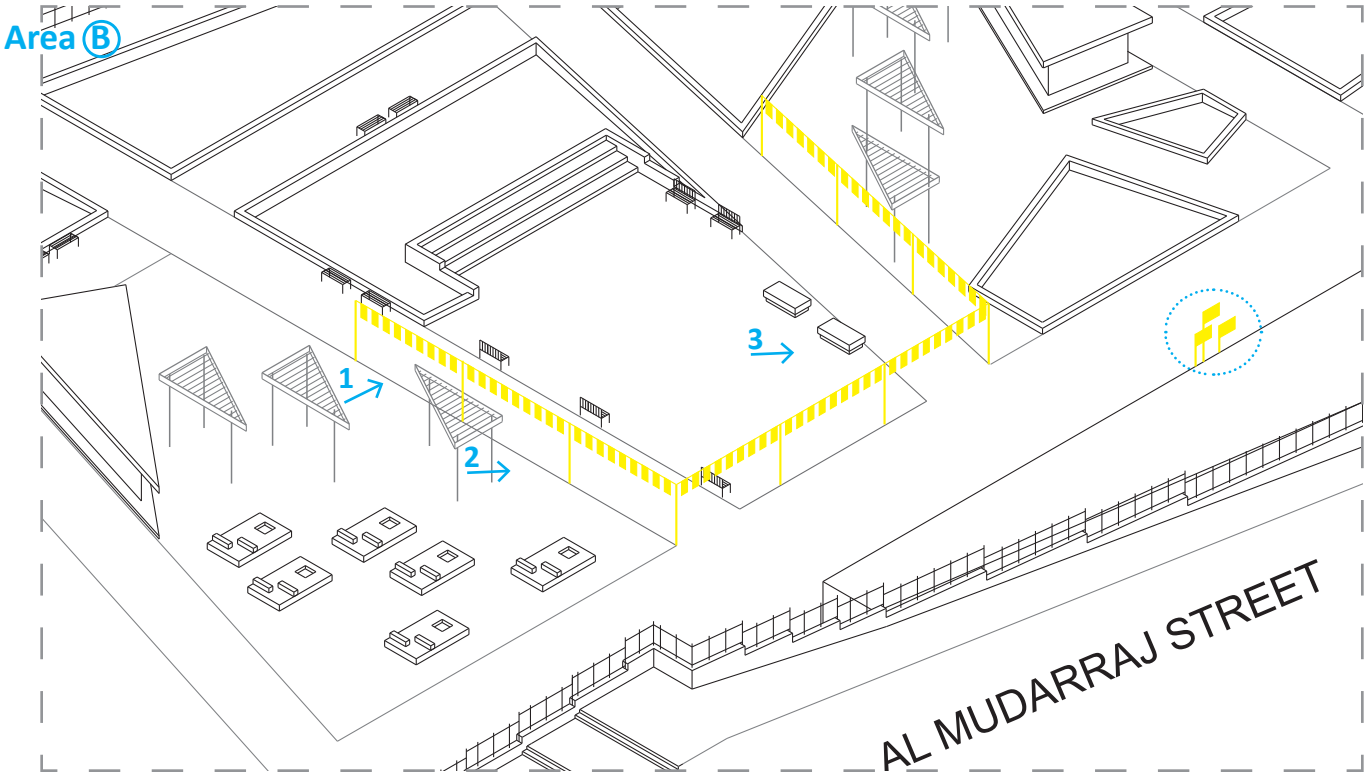
3: National and municipal flags at the top of the large staircase, framing the turnstile entrance.



4: Large flags and small bunting strung up around the north-west of the site.

Area B

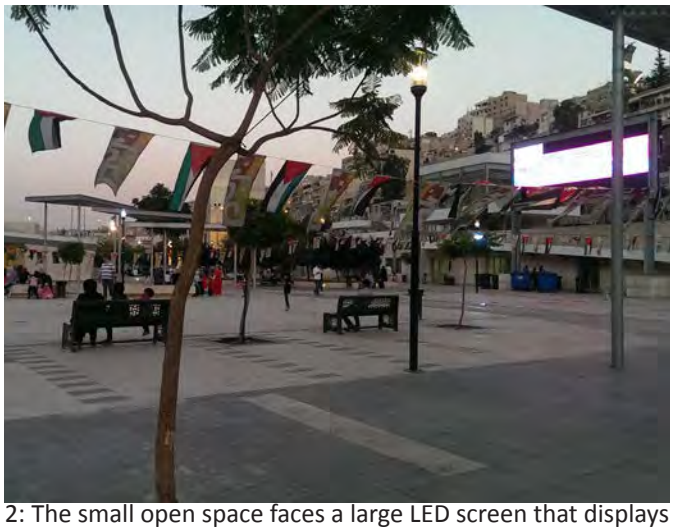
This area is comparable to Area A in the use of flags as branding and identity for the site. The difference at this location is that eastern part of the site has a slightly different identity because it does not have the same relationship with the ancient Roman buildings. This area has a contemporary identity and is bound to the south by a modern building with a large advertising screen facing into the site. This is a similar condition to Federation Square, where the main open gathering area is focused on a big screen. It also echoes the condition at the west part of the site where the open area focuses on the Roman Theatre along the south boundary. In both cases, there is a visual focus at the south side of the open gathering space. The gathering area in front of the big screen is framed by seats on the east and west and a small area of terraced seating at the north edge; and on three sides by flags at high level. Flags are branding in this space, just as they are at Area A, however in this case they a visual reminder that the government provided, and manages, this contemporary space. It is not a link to historical legitimation but a reminder of current capabilities and services for the community. Despite the variation of identity, the function of branding here is the same as at Area A. It implies authority and acceptable behaviours, working to pre-emptively manage users' behaviour.



DETAIL VIEW: REGULATORY PROCEDURES



1: Flag bunting frames the small open space in the eastern half of the site. A visual reminder of who provided the site.



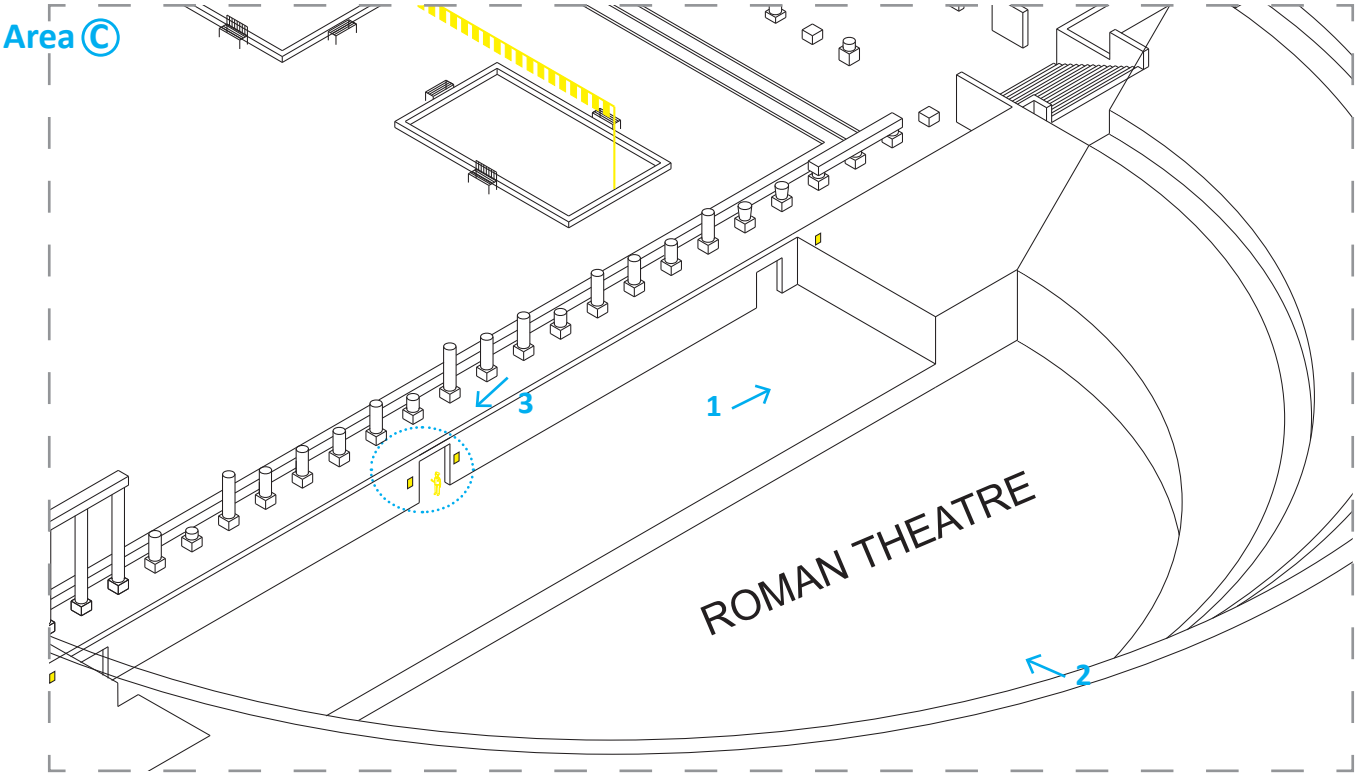
2: The small open space faces a large LED screen that displays advertising and information about events at the site.



3: Three large flagpoles along the south boundary (indicated).

Area C

Both the Roman Theatre and the Odeon are ticketed spaces – a single ticket provides access to both. Tickets are purchased at the north-east corner of the main gathering space, near the turnstile entry at Al Hashemi Street. The Roman Theatre is accessed via a small doorway in the centre of its boundary wall that was always guarded. I observed a mix of uniformed police and guards in civilian clothes working at this entry; usually in pairs or groups of three or four. The Roman Theatre operates under different rules than the rest of the site, it acts as segregated enclaves within the wider, more freely accessible site. Ticketing means that most of the people who enter the Theatre are tourists – local and international. Spatial segregation through ticketing means that these spaces can be controlled differently than the rest of the site. The overall spatial effect of segregation is division and separation of people depending on if they are able to /if they do access the different spaces.



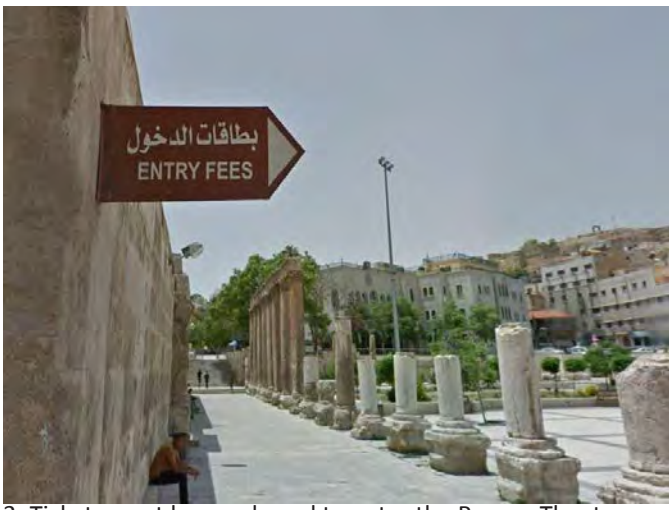
DETAIL VIEW: REGULATORY PROCEDURES



1: Gated entry to the small 'Jordan Museum of Popular Traditions' in the base of the Theatre.



2: A police officer guarding the entry to the Roman Theatre.

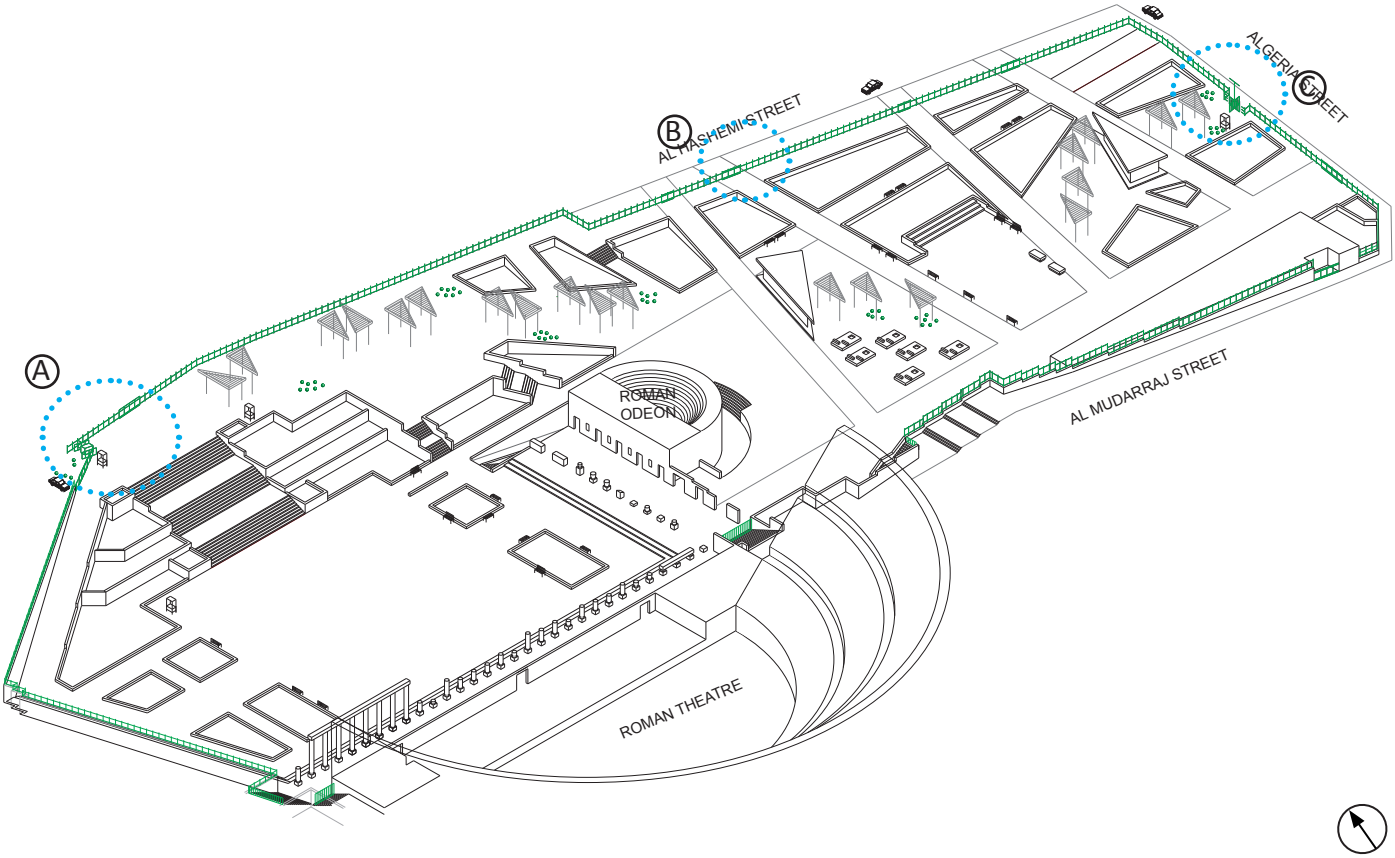


3: Tickets must be purchased to enter the Roman Theatre and Odeon. The tickets are sold at the entrance to the Plaza.

6.3.3 Fortress Measures

Fortification is the most visible and extensive control measure at the site; it is achieved with fencing, gates, restricted hours of operation, barriers and bollards. Fencing is the dominant measure, working in tandem with managed gates that limit points on ingress/egress for both pedestrians and vehicles. Fortification is concentrated at the site perimeters – the examples of bollards and barriers within the site are limited and, in the case of barriers, serve other functions as planters and seating. Fencing augments the natural barriers created by the site's topography. Fencing has been designed around the ancient Roman Amphitheatre, which forms a solid boundary at the south-west. The Theatre is built into the natural hill, with roads and buildings surrounding its southern edge adding an additional layer of physical barriers between the site and the public realm. Fortress measures indicate a closed space with limited accessibility. The use of visually permeable steel paling fences open up the space so that it does not look closed and inaccessible. It is a more inviting space. However, while the space looks inviting, the boundary fence has limited physical permeability and gives a sense of enclosure. However, fences, both permanent and temporary, at Hashemite Plaza are unlikely to be able to physically stop a vehicle, person or crowd who was intent on passing through. However, they indicate rules about where and how the site may be accessed and rely on shared social understandings of rules about what a fence and a gate are for. While fences do operate as physical barriers, they are more potent as visual, spatial cues.[413]

[413] Lawson, *The Language of Space*. P8.



FORTRESS MEASURES AT HASHEMITE PLAZA

- Fences
- Operable gates
- Retaining walls
- Spherical bollards
- Benches and barriers



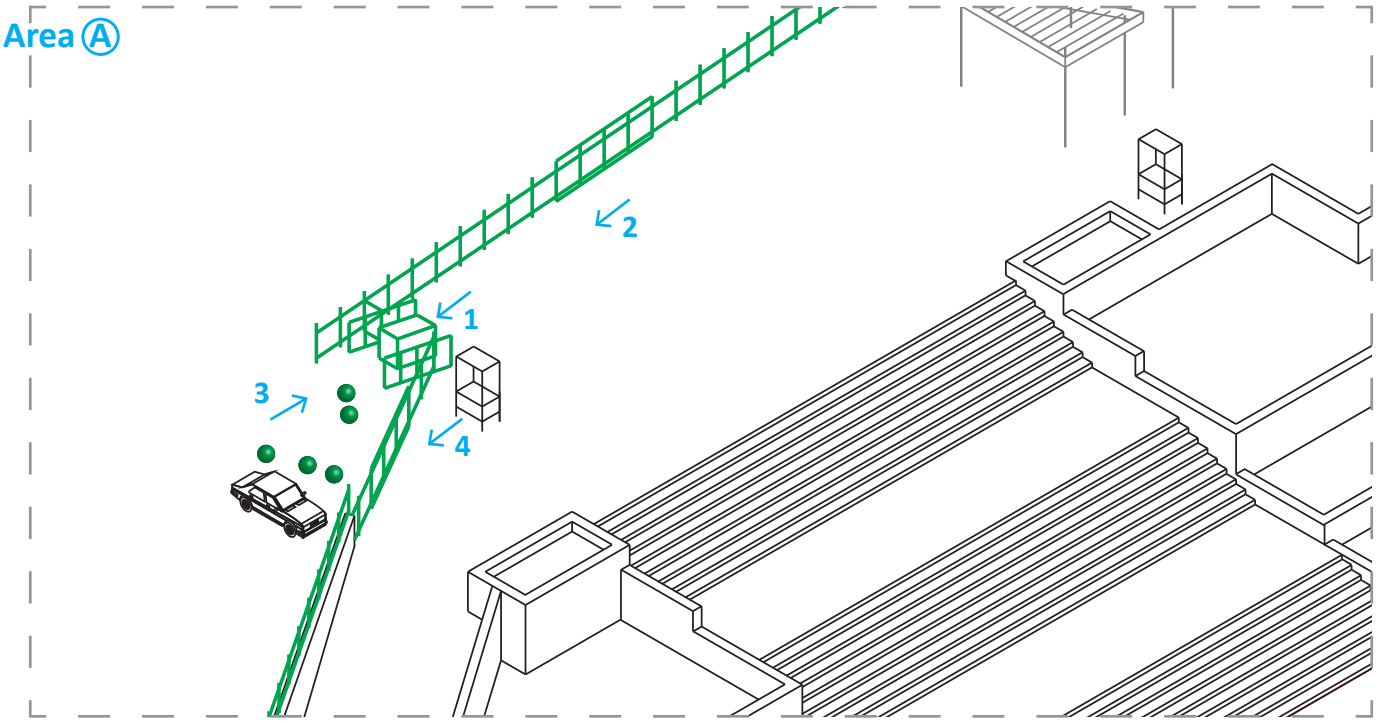





Area A

This area is a key access point for the site, providing the only pedestrian access from Al Hashemi Street which is the major thoroughfare between the eastern suburbs and the Downtown. The pedestrian access is, however, highly controlled – more so than at any other point in this site or at the other case study sites. Pedestrian access is via a turnstile – allowing one person through at a time. The turnstile can also be locked to prevent access entirely. Adjacent to the turnstile is a ticket booth – I did not observe this in use during my site visits. I have inferred that the booth is for selling or checking tickets when the Roman Amphitheatre is used for concerts and events. West of the pedestrian turnstile is a large sliding gate. This provides vehicle access to the site and is matched with a crossover from the road to the footpath adjacent. Within the footpath area there is a cluster of stone spherical bollards that mark out a square shape. I frequently observed police vehicles parked in this area with officers standing in the vicinity.

Images from Google streetview, dated February 2017 (prior to my site visits in July 2017) show that the pedestrian turnstile was installed in the first half of 2017, just prior to my visit. In the Google images, there is no break in the metal paling fence at this point, no turnstile, and access is via an open sliding gate at the north side. This sliding gate was never open during my site visits. It would appear that access to the site has been reduced and further controlled recently. The introduction of the turnstile in place of the open sliding gate slows down pedestrian access, prevents vehicle access, and makes it easier to observe who is entering and exiting the space. The spatial impact / effect of the turnstile entry is a condensing of the space. While the space remains physically open and expanded, the funnelling of all occupants one at a time through a narrow opening means that the effective size of this part of the site is reduced. Police officers and vehicles, frequently observed in this area (both inside the site and just outside it) create a regulatory repression of space, parallel with the physical condensing caused by the funnelling of traffic. Either side of the turnstile entry, and out of the immediate presence of police, the space opens up enormously, there is an immediate dissipation of spatial pressure.



DETAIL VIEW: FORTRESS MEASURES



1: West gate turnstiles at night.



2: West gate turnstiles (viewed from inside the site) with ticket booth at left and encircling high fence at right.



3: Spherical bollards outside the west entrance turnstile. The vehicle gate is located to the right.



4: Vehicle access gate in fence adjacent to the turnstile.

Area B

The north boundary of the site runs parallel with Al Hashemi Street. Part way along the north boundary of the site, the perimeter fence steps back, providing a wider pedestrian footpath area between the site and the street. A modern colonnade with canopy over the expanded footpath provides some shade and defines a pedestrian path adjacent to the site boundary. While the colonnade is outside the site boundary (and not assessed as part of this study), it provides some additional fortification in the form of masonry block pillars and steel posts. A metal paling fence defines the site boundary and along the north there is a defined pedestrian path inside the fence that is parallel to the path outside the site. This path is defined on its southern edge by landscaped areas defined by low-height masonry walls that extend deep into the site. As a result, the layering of fortification along the north between the road and the interior of the site consists of masonry pillars and steel posts (outside the site), metal paling fence, low masonry wall, landscaped area, and another low masonry wall. These layers are visually permeable but form a physically closed condition. The gates provide controlled vehicle access. The evidence for this is that there are gaps in the colonnade outside the site in front of the gates, and that the gates align with wide, sloped pathways between the landscaped areas leading to the centre of the site. Elsewhere, the site's level changes are accommodated with stairs, sloped paths are only found in alignment with gates.

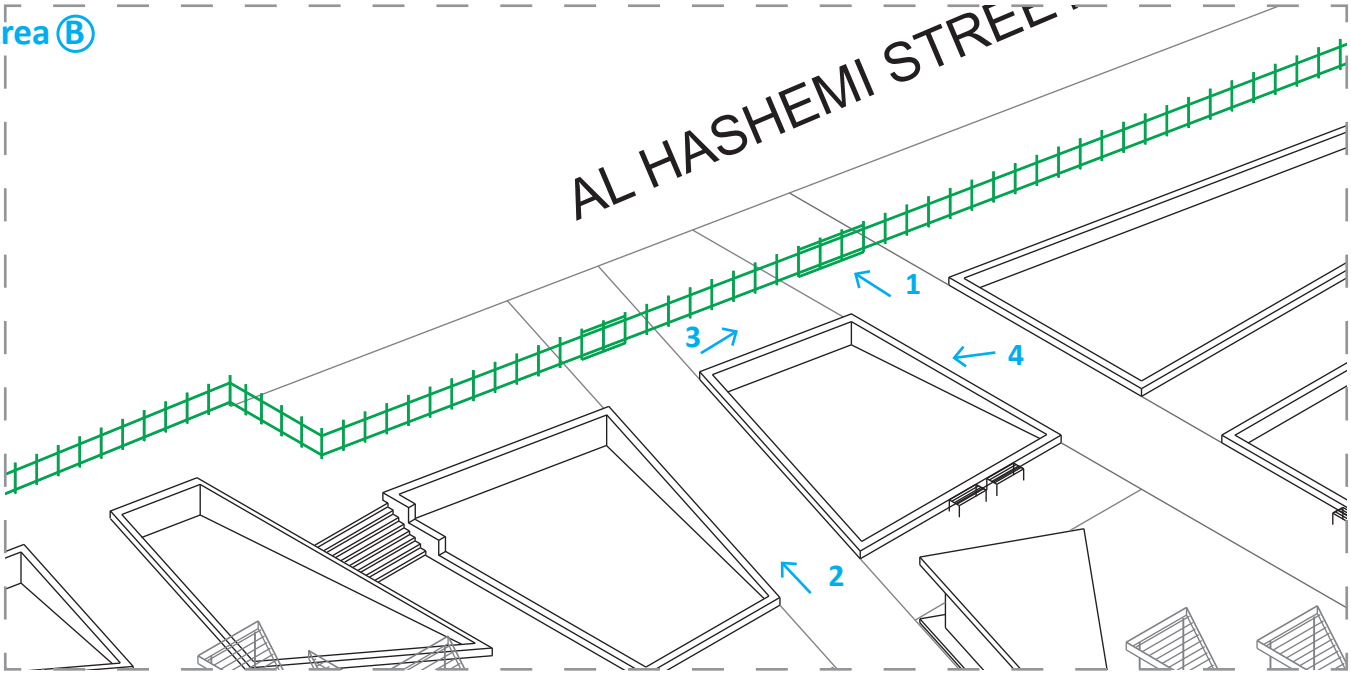
The spatial impact of fortification along the north boundary is a sense of depth and separation. The separation is felt profoundly as, while the fence is visually permeable, it is physically impermeable for a distance of several hundred metres. The adjacent roadway is characterised by constant movement and activity that contrasts with the quiet and stillness inside the Plaza. The parallel layering of roadway, colonnade footpath, fence, and pedestrian route within the Plaza creates a sense of gradually decreasing movement and activity – and a corresponding decrease in area. The fortified boundary delineates a clear separation but there remains a dialogue between inside and outside. The control and security benefit of this is that is allows observation / surveillance but is does not allow access. Decisions can be made inside the space in response to event/threat/activity outside the space and vice versa. Limited permeability through the boundary fence (via gates) separates those with power (both power to and power over in this case) from those who are powerless and cannot get through the fence. Power structures are therefore embedded into the physical form of the place.

Controlled vehicle access via the north boundary means that the site can be open to maintenance or emergency services but closed to non-authorised vehicles that may be considered a danger. If a threat event were to occur, emergency services can quickly enter and access the main part of the site in response. Ambulance and police vehicles can equally exit the site quickly as required. While the gates

and paths are arranged for ease of vehicle access, they may be similarly used by pedestrians in an emergency to evacuate the site. There are very few gates in the perimeter fence of the entire site – a potentially dangerous situation if there is an ongoing threat event within the space and people cannot adequately evacuate. It is not clear who is responsible for the operation of the gates and under what circumstances they may be opened. I did not witness these gates open and have only been able to make inferences about their function.

The north boundary fortress measures are preventative – they stop vehicles and pedestrians accessing the site at this location. They are also responsive as they could be opened/closed to provide vehicle access, as well as pedestrian evacuation. The presence of a controlled opening in a perimeter indicates preemptive thinking. Access can be denied to anyone deemed to be a potential threat; and in my experience access was denied to everyone at this part of the site. Limited points of access that are monitored and controlled is a control technique intended to pre-empt threats by exclusion.

Area Ⓑ



DETAIL VIEW: FORTIRESS MEASURES



1: Vehicle access gate within the north boundary fence. Note the shade structure outside the site stops here.



2: View looking north along the vehicle-accessible path towards a gate in the north boundary fence.



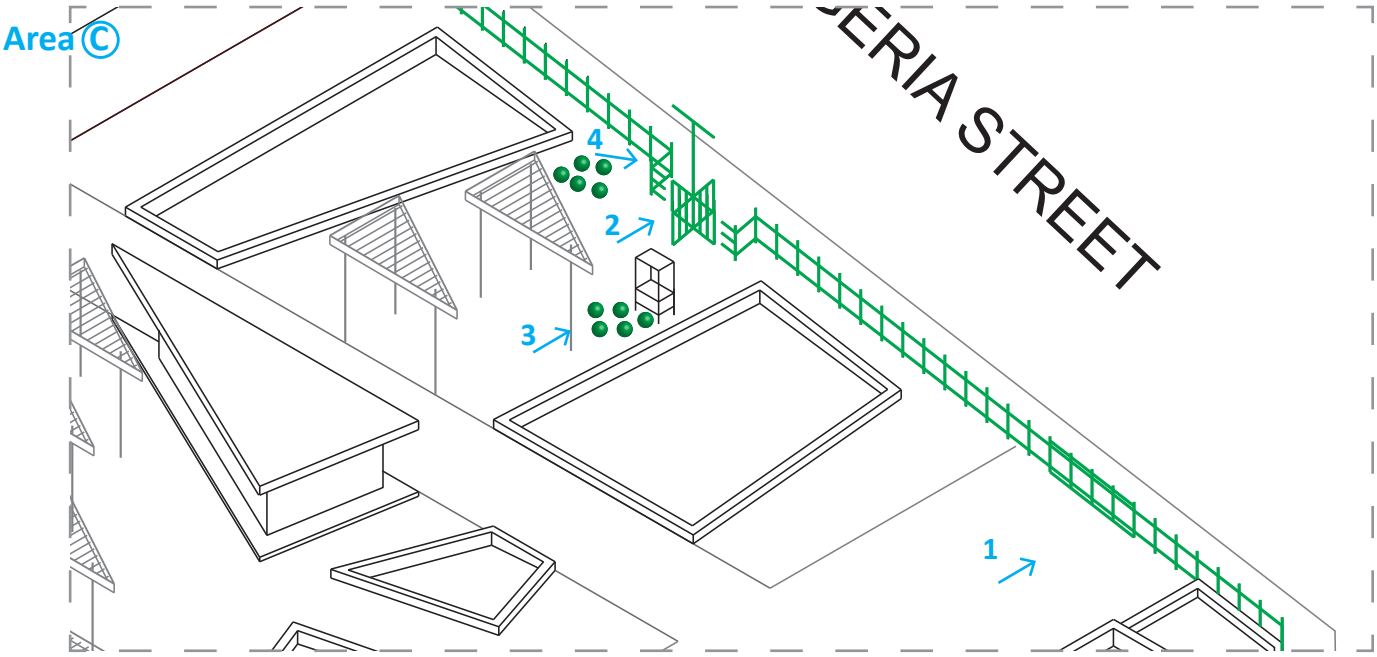
3: View looking east across the north boundary fence. Note the layers of fortification both inside and outside the site boundary.



4: View of low-height masonry walls surrounding landscaped areas.

Area C

The condition at the east of the site is similar to that at Area A in the north west. There is controlled pedestrian access via a turnstile at Algeria Street. As per the turnstile at the north west, this one at the east is not evident in Google streetview images from February 2017. There was, however, a hinged gate where the turnstile now is. This is not a new access point, but the method and control of access has changed. The turnstile is set inwards from the boundary, the perimeter fence turns in at this point. As per the turnstile at the northwest, there is a nearby sliding gate in the fence. In contrast to the one at the north west, I did observe this gate open and used by both pedestrians and vehicles during my site visits. Spatial impacts of controlled and restricted access are less severe at this site boundary because there is a greater ratio of open to closed. The turnstiles symbolically embed segregation and access rules into the built form. There is nothing actually forcing people to use the turnstiles as they are intended except their own internalised understanding of the meaning of the object. The turnstile and fences control behaviour by suggesting authority.



DETAIL VIEW: FORTRESS MEASURES



1: Open vehicle access gate in the south-east corner of the site. Police booth is adjacent.



2: Turnstile at east boundary. Note the separate 'entry' and 'exit' arrangement.



3: Spherical bollards inside the eastern turnstile entrance



4: Hinged part of the fence as it turns inwards at the turnstile. This indicates flexibility in the fencing arrangement.

7. Case Study Sites: Discussion

The preceding chapters have introduced the case study sites and analysed small sub-areas of each site to determine how control manifests in, and impacts on, the spaces. The application of control measures is an instrument of power operating across a time scale from response through to preemption. Each area was chosen for its ability to demonstrate the identified control measures. The analysis was formed of isometric maps of fixed, physical features and discussion of the activities and lived experiences that were observed during field work. The maps on their own are inadequate to fully describe and explain the way control manifests, how power relations are mediated by the space, or the impacts this has on people's behaviour and spatial experience. Spatial observations and personal experience during site visits were critical to understand the complexity of relations and interpretations that make public space. As Kahn and Hinkel have demonstrated, sites are not discrete and empty – particularly public spaces. Rather, they are constituted by a rich complexity of systems, users, desires and infrastructure. Power attempts to bring all of these disparate yet connected elements under control. Authority at each site is embedded in the spatial structure and becomes internalised in users. Controlling security measures evident at each site are informed both by their site-specific context and by wider security concerns locally and globally.

Each site's identity, use and form are influenced by its location, history and social context. Controlling security measures are layered onto this existing socio-spatial tapestry with a variety of effects. The three case study sites present a variety of spatial conditions, historical contexts, legislative frameworks and threat contexts. Nevertheless, there are some similarities amongst various aspects of the sites. The historical use of the area for gathering prior to the construction of the current PMG is noted at each of the case study sites. Being a central site and connected to the gathering of people is an inherent character at each of the places. This is most evident at Hashemite Plaza where the lived history and social identity developed long before its physical fabric. The Plaza that exists today is the most recent in a series of public open spaces at this site beginning, at least, in Roman times. Its role as a collector of people, events and experiences is an inherent character that would exist in spite of its built form. Trafalgar Square is the oldest of the three sites (in terms of built form), and has an identity shaped by historical experiences of social and political conflict, subversion and rigid control. Federation Square's identity is still developing, evident in the contested heritage listing process.

The following chapters build on this analysis of each site with a comparative analysis of the controlling security measures themselves.

8. Security Measures & Spatial Types: Comparative Analysis

The previous chapters considered each case study site in turn; introducing the place, its history, context and the controlling security measures observed therein. Results of the site visit fieldwork, in the form of tables and diagrammatic maps, were presented as a first stage of analysis. The diagram maps were then used as an analytical tool to further explore and reveal the workings of security measures at each place in turn. The following chapter takes an alternative approach. Rather than considering each case study site in turn, this section comparatively analyses the controlling security measures themselves. The aim of this section is to reveal generalisable patterns across each site by comparing and contrasting the operation and effects of each security measure. This cannot be achieved when looking at each site in isolation. This chapter reviews security measures in several ways. Firstly, as objective elements with a set of spatial relationships. Secondly, as concentrations of effect within the broader site. Finally, the impacts of security measure on the function of different spatial typologies within the sites.

Comparing concentrations of security helps to identify which areas of the sites are most and least controlled. This is achieved with a 'heat map' gradient diagrams produced by drawing a grid over each of the sites and using a colour gradient to identify where security measures are most heavily located. Individual security measures within each category are plotted on the grid point locations corresponding with their position. The colour gradient then describes how many security measures are located at each point. For example, if there is one panoptic measure at a point the lightest colour is applied, if there are two measures a darker colour is applied and so on. All of the panoptic measures are shown in shades of red, regulatory procedures in yellow, and fortress measures in green. This technique works well to describe the location of physical objects in space; it does not work so well for conceptual overlays, such as regulations, that can operate across the entire site. In those cases, I have applied the lightest shade across the map, and used the darker shades to describe physical manifestations of rules such as signs or active enforcement.

The final section looks more closely at the effect of security measures on different spatial typologies at each site. The discussion looks at how security measures impact on the expected operation of perimeters, thresholds, open gathering spaces, corridors, and topographical formations. The aim is to explore if these typologies are impacted by controlling security measures in a generalisable manner. While the locations of security and control are identified and discussed in the previous chapters, this section aims to understand the range of influence of these measures and their combined impact on subjective experience at the site.

8.1 Panoptic Devices: Properties & Operation

In this study cities, and places within them, are understood subjectively as places of human experience and meaning, and objectively as assemblages of physical elements in space.[414] This chapter analyses controlling security measures as objective spatial elements. The close reading approach considers the context and lived experience of the place. The closer scale of spatial analysis engages with concepts of power, social impacts, perceptions and human relationships with place. Subjective human experience, history and competing desires within cities are considered. This will provide context behind the objective assemblages that form the case study sites. Controlling security measures are analysed as objects in space, that have relationships with each other and the wider space. I have drawn on descriptions of mathematical space, which define geometric entities as points, lines and regions; and the relationships between these entities as operations, connections, orientation and distance.[415] I have adapted these categories in response to my own observations of the sites to describe the operation of controlling security measures as points, borders, vectors, regions and/or overlays (Figure 8.1). Points are security measures that operate at a distinct node or fixed location. Borders create a separation within space, either between different parts of the site, between people or times of day. Vectors are measures that operate in a line that has direction and / or movement. They may be unfixed, or fixed (like points) but have a defined range of operation. Regions are small subspaces where security measures create a field of operations around themselves. Finally, overlays are measures which operate across the site, at all times. Overlays can be implied. These operations are not always discrete, and some measures operate in more than one manner. The following analysis describes each type of controlling security measure in turn.

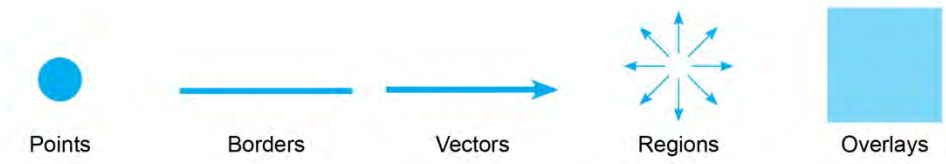


Figure 8.1: Diagrammatic representations of the operation of different security measures.

Panoptic devices describe surveillance activities include CCTV, private security, police and military presence, and opportunities for passive surveillance. Panoptic devices perform across all time scales of response, prevention and preemption. Surveillance overlaps with, and supports the appropriate functioning of, regulation and fortress measures. The strategic categories used in this study are not

[414] Somaiyeh Falahat, "Context-Based Conceptions in Urban Morphology: Hezar-Too, an Original Urban Logic?," *Cities* 36 (2014).
[415] Aiello, Pratt-Hartmann, and Benthem, *Handbook of Spatial Logics*. 3-4

necessarily discrete and they do not tend to operate in isolation from each other. Evidence gathered from CCTV footage can be used to support regulatory processes including the investigation of threat events and the prosecution of criminals. Active surveillance can reveal vulnerabilities in fortress measures or where the installation of new measures may be required. There are panoptic devices at each of the three case study sites, but they are not employed in a universal manner. Federation Square is primarily monitored by CCTV with extensive provision for passive surveillance and a small amount of police and private security. Trafalgar Square combines CCTV with a very active police presence, a high level of passive surveillance but no private security. Hashemite Plaza has very limited CCTV and no private security, relying on police and military presence and a very high provision of passive surveillance opportunities. Each measure will be discussed in turn, to analyse their spatial relationships and operation on a time scale.

8.1.1 CCTV

While CCTV cameras are located in single, fixed positions they do not operate as points; but rather, as regions and vectors (Figure 8.2). As regions with a field of visions, CCTV cameras create a dialogue between the camera as observer and people in the space as the observed. Generally, people are aware that CCTV cameras are in use because the cameras themselves are visible and / or there are signs in the space advising that they are in use (Figure 8.3). Furthermore, the use of this type of surveillance in contemporary society is so pervasive and entrenched as to be an assumed condition, particularly in the west. The CCTV region of operation extends, theoretically, further outwards to include those monitoring, storing and analysing the vision and data from the cameras. CCTV cameras at each site are sited strategically to increase the size of their region of operation. Generally, they are either positioned at a high point or in an open space. If they are in a small, closed space they are directed at a specific point, which is a vector operation. CCTV operates as a vector because they have direction, distance and focus. Some cameras are used to focus on specific points in the space (for example, on entrances or the edge of a private business in the space), while others can rotate and change their focus and field of vision. A CCTV camera's range of vision (distance and angle) depends on its technical specifications. Details of camera specifications, and therefore precise operation, at each site is outside the scope of this research.

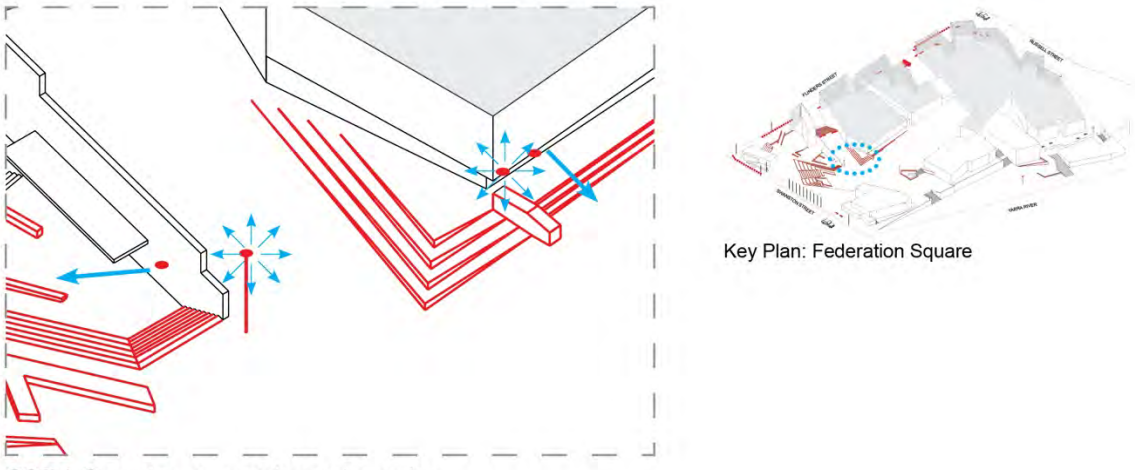


Figure 8.2: Diagram of CCTV operations at Federation Square.



Figure 8.3: Sign advising of CCTV in use at Trafalgar Square (left) and CCTV cameras located at a high point to maximise views at Federation Square (right).

CCTV is used in all three sites but to different degrees. Federation Square has CCTV cameras throughout the site with a small number of signs advising that cameras are in use. Trafalgar Square is the most overt in its use of CCTV. However, it is notable that only one camera was observed within the space itself; the majority. are located outside the site looking in, such as those on the roof of the adjacent National Gallery. There were multiple signs advising the public that CCTV was in operation. Hashemite Plaza does not rely heavily on CCTV, only three cameras were observed within the site. At all three sites cameras are concentrated at perimeters. This suggests that the focus is on who/what is entering the site rather than what happens once they are already inside. There is some variance in the way that this perimeter camera condition operates. At Trafalgar Square the cameras are located outside the site looking in. In contrast, at Federation Square the cameras are inside the site and are arranged to look both outside and inside. The reason for this variance possibly relates to the different

spatial layouts and forms. Trafalgar Square is a single open space split over two levels; it is not difficult to observe. Federation Square is a more complex space, with several sub-spaces, level changes and buildings across the site. The spatial arrangement at Federation Square physically limits the range of CCTV vision and requires the use of multiple cameras at different places to achieve thorough coverage. Hashemite Plaza has very limited CCTV use, but its spatial arrangement is similar to Trafalgar Square and would easily accommodate a similar surveillance approach. CCTV cameras are found in both the public areas and at the edges of the public/private interface at Federation Square; a situation that is not replicated at the other sites. The positioning and operation of CCTV across each of the sites indicates that it works best in open spaces that allow a wide region of vision. However, it also operates as a vector when focused on a single, specific point.

8.1.2 Private Security, Police and Military Presence

Private security, police and military personnel operate in a comparable way and can be discussed together. An important difference to note is that private security personnel indicate a level of privatisation of the space, which is a regulatory measure. While state and private security personnel are considered to perform a panoptic role as active surveillance, they also perform a regulatory role as they have the authority to enforce site rules. Police, military and private security personnel are unusual amongst the controlling security measures discussed because they are people. They are not a feature of the site itself and can move around or dwell according to operational requirements / instructions, or their own whims. Their presence and activities within the site can be anticipated to a certain degree but they are otherwise unpredictable. Similar to CCTV, there is a dialogue between users of the space and police / private security personnel.

Police, military and private security personnel symbolise power and have an authority within the space that is socially accepted and understood.[416] People in the space tend to monitor their own behaviour because they accept the authority inherent in state and private security personnel. The efficacy of security personnel as surveillance relates as much to their being seen as it does to what they can see. Because they represent and embody socio-spatial power structures, they rarely have to use force to manage behaviour. Police, military and private security personnel operate as regions and vectors. There is an immediate range of influence surrounding them related to what they can see and who can see them. This range can be limited if security or police personnel remain in a fixed location but expands when they casually patrol the space. If they move through the space with a specific focus and direction they are operating as vectors (Figure 8.4).

[416] Dovey, *Framing Places: Mediating Power in Built Form*.

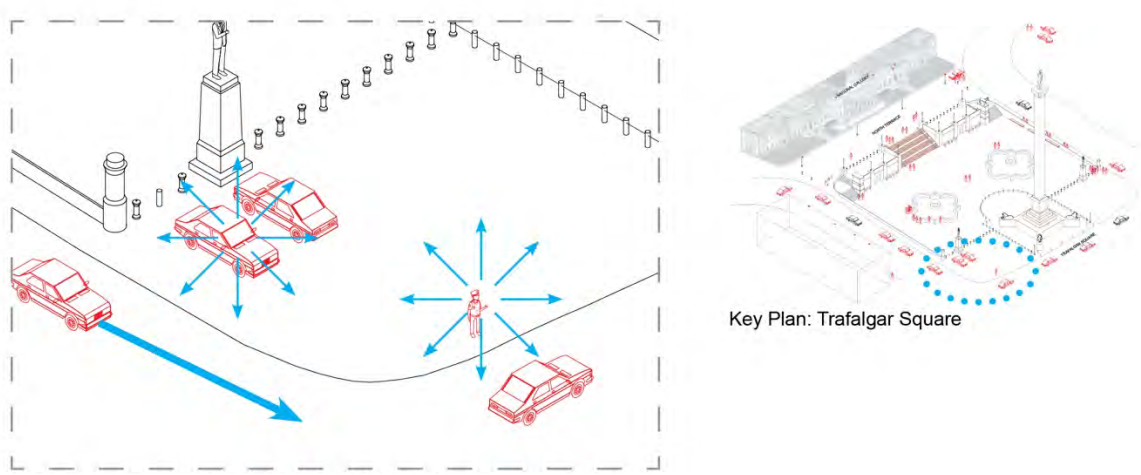


Figure 8.4: Diagram of police presence operations at Trafalgar Square.

Across all sites, there is an inverse relationship between private security and police / military presence. At Federation Square, there was a very low police presence, only observed at the site during a large public event and in tandem with existing private security personnel. On the other hand, at Hashemite Plaza and Trafalgar Square there were no private security personnel but there was a constant presence of police and / or military. Heritage Wardens at Trafalgar Square and staff selling and checking tickets at the Roman Theatre in Hashemite Plaza are state-employed officers with authority to perform a security role at a specific component of the site. They do not have wider authority for security or behaviour management across the wider site. Trafalgar Square demonstrated the most thorough police presence throughout the site. Officers were observed moving through all parts of the Square and surrounding area both on foot and with vehicles during every site visit. At Hashemite Plaza, on the other hand, the police were generally stationary, remaining at covered booths or walking small distances through the place. Police vehicles were observed at the site on occasion, located on either side of the boundary fences.

Unlike CCTV which is restrained by spatial complexity, private security and police can use the variance of spatial openness and enclosure to their advantage. When operating from a fixed position, private security and police personnel require openness to maximise the range that they can observe and, in turn, be observed. They can, however, move to smaller, enclosed spaces if they wish to maintain their own range of vision while simultaneously limiting the range at which they are visible. This ability to move freely removes the constraints of boundaries and spatial enclosure that limits CCTV. People are unpredictable but they are also flexible; they can overcome spatial constraints simply by moving to a more amenable location. There is no clear spatial condition that defines or supports their effective operation. Clear, reciprocal visibility across space is important, but it is not essential.

8.1.3 Passive Surveillance

Provision of passive surveillance creates regions of opportunity within the space (Figure 8.5). Similar to CCTV, passive surveillance operates from a fixed point to observe a region. However, unlike CCTV, passive surveillance is not active or focused and therefore this type of surveillance does not operate as a vector. Passive surveillance is not necessarily an intended outcome, it can be an effect of the spatial arrangement and its capacity to support people dwelling and observing the space. While passive surveillance also involves people, it is a different condition to that of police, military and private security personnel which are active and reflect power relations. In this case, it is a property of the space and its potential to be used in a certain way rather than the active behaviour of people. Provision of passive surveillance can be obviously deliberate, such as the inclusion of seating. It can also be an outcome of elements that serve another role being co-opted by members of the public for dwelling in and observing the place. Examples include steps, planter boxes, balustrades, raised edges around fountains or statues, or generally anything that can be sat on or leaned against.

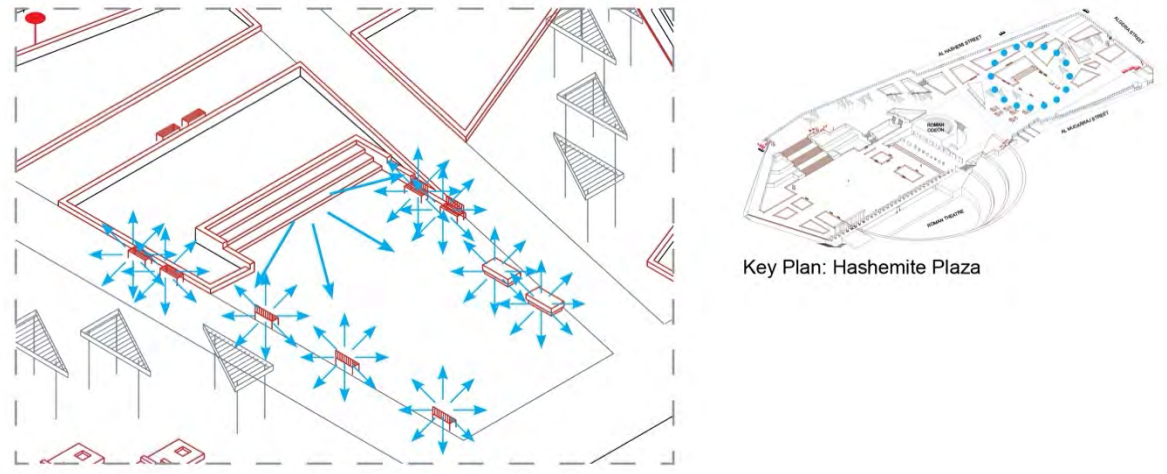


Figure 8.5: Diagram of passive surveillance operating as regions.

Passive surveillance opportunities are spread throughout each site but concentrated within the body of the space and closely aligned with the site's topography. Level changes create viewpoints; this is best demonstrated at Trafalgar Square where North Terrace overlook the body of the Square, and at Hashemite Plaza where the Roman Theatre, within a natural hill, overlooks the entire site. The impact of topography is paralleled at each site by the siting of public entertainment infrastructure such as stages and screens. People at each site were observed congregating and dwelling at seating areas, on steps and on raised edges around gardens, statuary and planters, balustrades or bollards. There is a relationship between human-scale built elements and topography that provides opportunities for passive surveillance. There is an interpersonal dialogue created through passive surveillance that

encourages the population to self-regulate behaviour, which is a similar effect to the visibility of police and private security. Passive surveillance is most effective with long, clear viewlines and large numbers of people observing the space.

The presence of other people (eyes on the street) in public places makes a place feel safer.[417] Increasing the potential for people to occupy and passively survey a place encourages more people to enter and dwell in that place. This is a self-fulfilling prophecy because an increase in the number of people inhabiting the space will result in an increase in passive surveillance which further encourages people to spend time in that space. However, a highly occupied space is potentially a more attractive target for attack because it carries a greater potential for casualty and symbolic value. There is a balance between occupation volume increasing feelings of safety but also increasing risk. Furthermore, visible security can lead to adverse emotional responses as it sends the message that the place is unsafe, therefore requiring extensive security measures.[418]

8.2 Panoptic Devices: Concentration

Panoptic devices are pervasive. It is difficult to accurately measure how much of the site is under surveillance, and from what source, at any given time. Across all the sites, surveillance is most heavily applied in two types of space: thresholds and gathering places. Threshold surveillance at Trafalgar Square is fairly uniform and consistent with levels throughout the site. At Federation Square and Hashemite Plaza, however, there is a clear increase in the concentration of surveillance measures at thresholds. The difference correlates to how open the boundaries are. Hashemite Plaza has very defined access points and is largely closed across its perimeter. Federation Square has a more open perimeter while still having defined access points and several inaccessible areas. Trafalgar Square has the most open perimeter; even where it is physically closed (east and west retaining walls) it remains visually open at least. Panoptic devices are concentrated where people are concentrated – either moving across the site boundary or dwelling in the space. Each site has defined gathering areas that also demonstrate a concentration of surveillance measures. However, in this case it is more likely to passive, rather than active, surveillance.

Panoptic devices at thresholds and perimeters tend to be active– CCTV, police and security – which then disperse loosely through the body of the space. Active surveillance performs a preemptive function at thresholds by observing and identifying threats as they enter so they can be monitored or

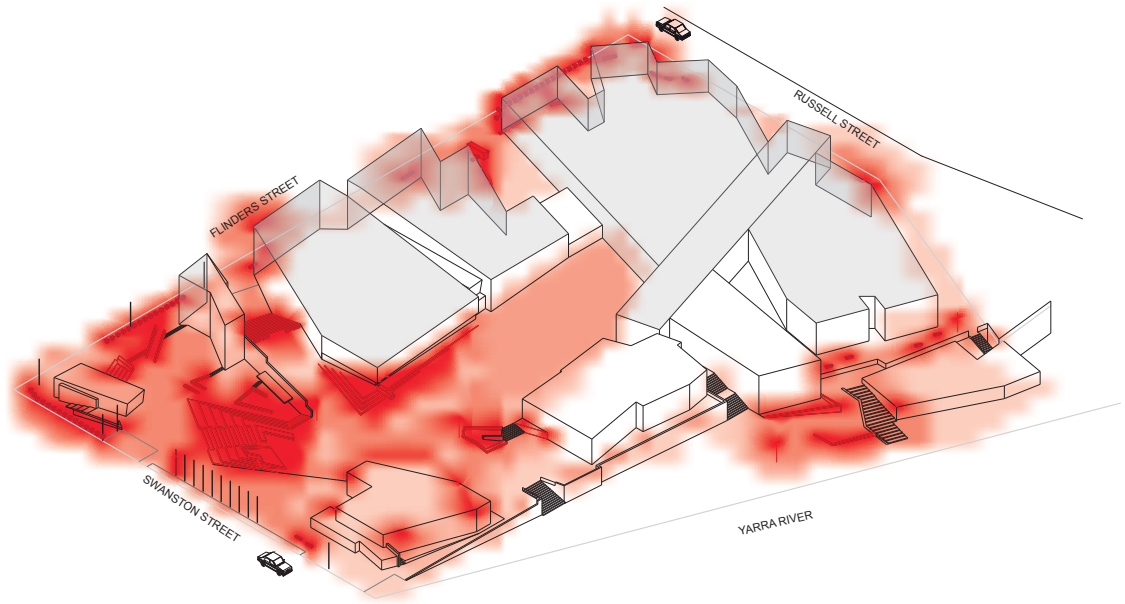
[417] Vikas Mehta, "Evaluating Public Space," *Journal of Urban Design* 19, no. 1 (2014). P60. And Jane Jacobs, *The Death and Life of Great American Cities* (Random House, 2002). And, Nan Ellin, "Fear and City Building," (Hedgehog Review, 2003).
[418] Jon Coaffee, Paul O'Hare, and Marian Hawkesworth, "The Visibility of (in)Security: The Aesthetics of Planning Urban Defences against Terrorism," *Security Dialogue* 40, no. 4-5 (2009). P489. And, Dalgaard-Nielsen, Laisen, and Wandorf, "Visible Counterterrorism Measures in Urban Spaces—Fear-Inducing or Not?."

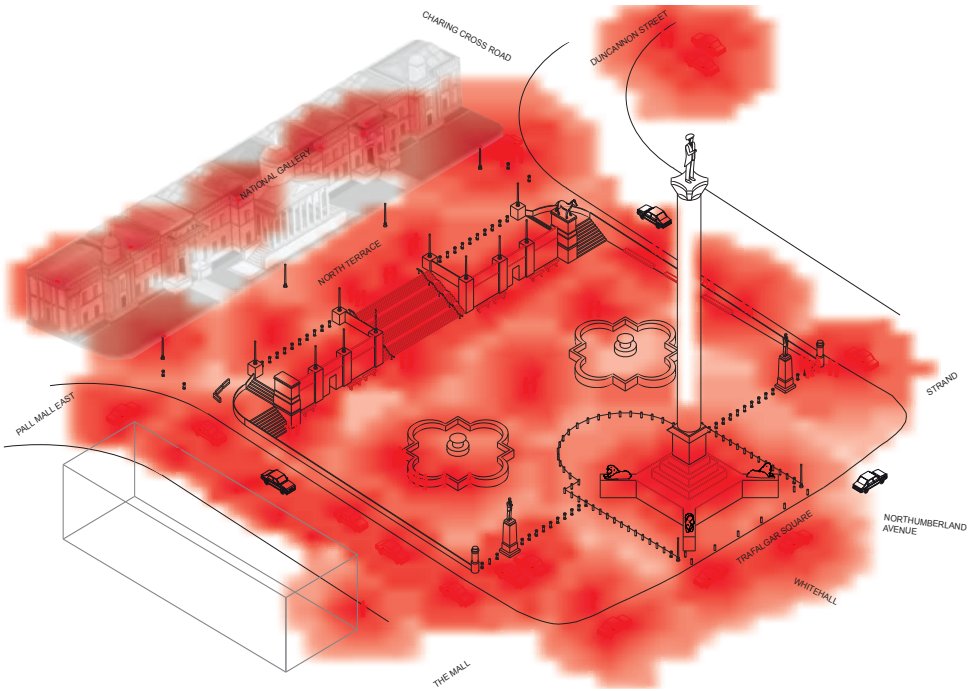
removed. Passive surveillance takes a more important role than I had anticipated at the beginning of the research. Passive surveillance is not actively performing a security role. If a person dwelling in the site is observing the place and the people in it passively it will be by chance if they observe something or someone that poses a threat. And even then, passive observers are limited in what action they can take about a threat if they see one. Passive observers do not have the authority or the power to do anything about threats in the site. In order to act on perceived threats, they must share concerns with those who do have power – such as police. This is an example of power dynamics,[419] and is the basis of public campaigns such as "if you see something, say something"[420]. These campaigns encourage the public to share their concerns with those in power, and in doing so they are empowered to be part of the site's security system. While people passively observing the site may not be empowered to act, their presence indicates that the site is being watched, which tends to cause people to be aware of their behaviour and self-censor to conform to societal expectations.[421] There is a balance of surveillance type and the quantity of it that is required to effectively control. Active surveillance is more potent because it comes with the authority and power to act, it does not rely on chance observations, and less of it is required. Passive surveillance, on the other hand, relies on the sheer volume and quantity of eyes in order to have an impact. With this in mind, it would make sense to provide a large number of opportunities for passive surveillance throughout the site, and to concentrate active surveillance at the perimeters. This is what we see happening at Federation Square and Hashemite Plaza; but Trafalgar Square does not follow the pattern with panoptic measures fairly evenly spread throughout. There are several possible reasons for this. Trafalgar Square is the smallest site and the most spatially straightforward, the whole space can be observed and understood quickly and easily. Active perimeter surveillance should be adequate to cover the entire site.

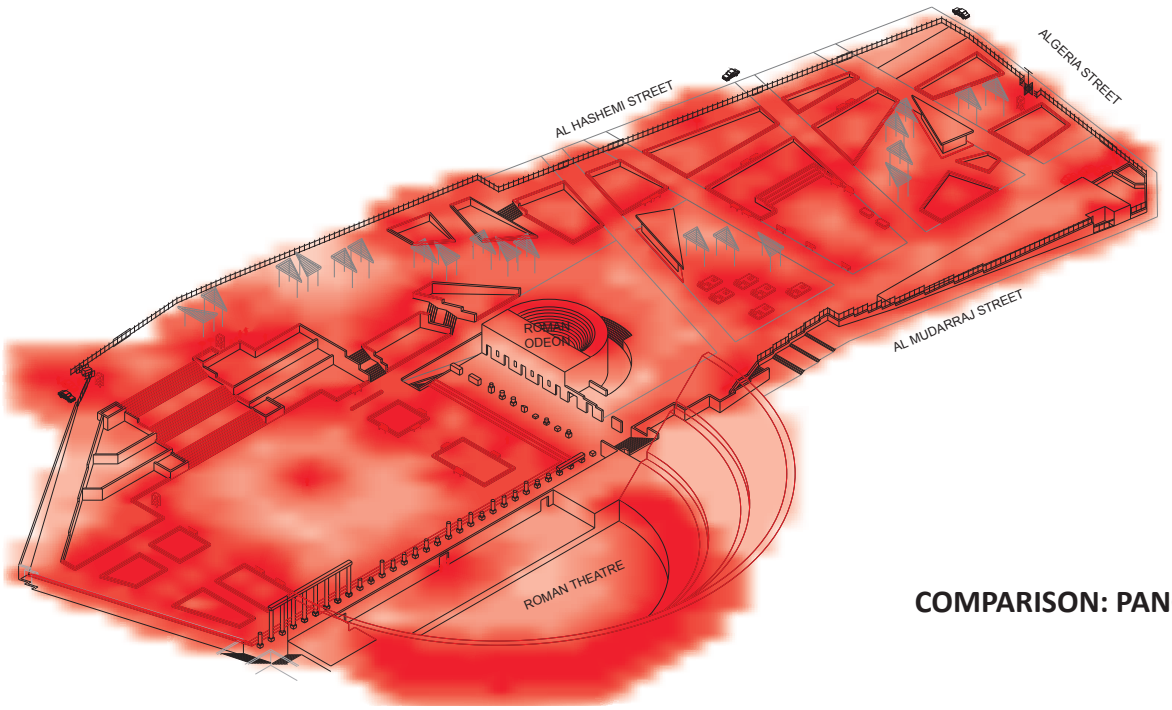
Active surveillance within the body of the space comprises police officers and, on one occasion, military. CCTV is located at the perimeter but not within the body of the space. Police move through the space, acting as roving points of surveillance ready to act if required. Police surveillance is determined by several factors including operational protocols, threat levels at the site and wider city, and how officers respond to the layout of the space and the events occurring within it.[422] Trafalgar Square has the most overall quantity of panoptic measures across all the sites. It was also the busiest of the sites with a very high symbolic value, making it a more valuable target for attack than either Federation Square or Hashemite Plaza. Active surveillance increases in quantity as the population of

[419] Dovey, *Framing Places: Mediating Power in Built Form*. m
[420] Crime-Stoppers-Victoria-Ltd., "Say Something".
[421] Jacobs, *The Death and Life of Great American Cities*.
[422] David P. Waddington, "A 'Kinder Blue' Analysing the Police Management of the Sheffield Anti-'Lib Dem' Protest of March 2011," *Policing and Society* 23, no. 1 (2013).

the space increases. At Trafalgar Square, the Sikh genocide rally increased both the population and the symbolic value of the site as it introduced a potentially politically sensitive event. There was a parallel increase not just in police presence, but in specialisation, as Police Liaison Officers were also present. Similarly, following the London Bridge attack, the threat level was heightened and the police numbers also increased – along with military members. This correlation between population levels and the amount of active surveillance was observed at all the sites. Police were only observed at Federation Square during a large public event; and at Hashemite Plaza police numbers increased during busy times in the evening. Across all the sites, the areas with the most surveillance are those areas that support the highest concentration of inhabitants.







COMPARISON: PANOPTIC DEVICES

8.3 Regulatory Procedures: Properties & Operation

At each site there are layers of regulation operating on a scale from national laws down to site-specific rules. Site-specific rules about behaviour can also be implied through the design of the space or its elements. Branding is a subtle tool that creates a preferred site identity, implying a range of acceptable behaviours.[423] Regulatory procedures overlap with panoptic and fortress measures – usually providing the legal authority and justification for their implementation. While regulation is discussed separately, it does not operate in isolation.

8.3.1 Visible Rules

Rules and regulations generally function as overlays across the entirety of each site. However, when those rules are made visible, such as on a sign, that visual element is a point in the space (Figure 8.6). This is an odd condition that decouples the rule as a concept from the physical expression of that rule as an object. For example, a sign at Trafalgar Square that says 'do not feed the pigeons' is a point in the space, but the rule of not feeding the pigeons is an overlay applied to the whole Square. This becomes a relationship of signifier / signified where the physical sign of the rule is decoupled from the location and concept of the rule. Visible rules operate in two ways – to advertise a general rule regarding the use of the site overall and to provide information about specific places within the site. This is seen across all three sites, with Trafalgar Square having the most overt and extensive use of visible rules. At Trafalgar Square, site specific byelaws are posted up, but they are not highly visible as they are printed on A4 pages. On the other hand, there are multiple signs advising of CCTV presence and not to feed the pigeons on large frames positioned in the centre of the site which are highly visible (Figure 8.7). Site-wide overlay type rules so not require any particular spatial condition to operate effectively. They exist across the space regardless of its physical properties.

[423] Miller, "Consumption as Control: Historical Relationships between Regulated and Unsanctioned Practices of Consumption in Public Squares."

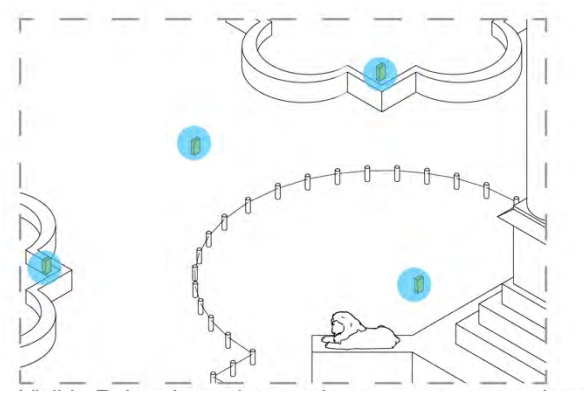


Figure 8.6: Visible rules exist as points in the space.

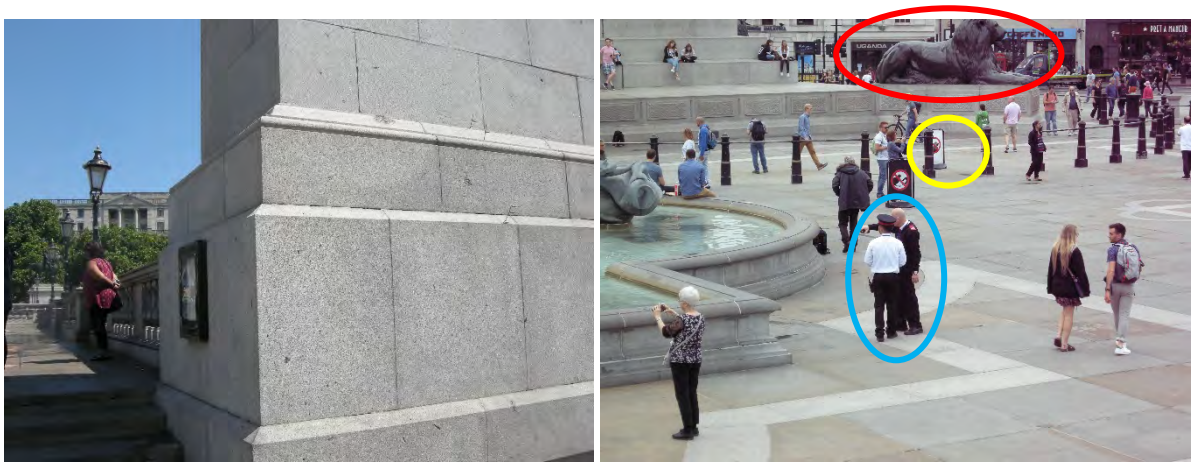


Figure 8.7: Site-specific byelaws posted up at Trafalgar Square (left). And, at right, an example of the spatial dispersion of site rules – the lion sculpture (circled in red) is not to be climbed. The sign advising this is adjacent (in yellow) and is enforced by heritage wardens (in blue). Note also the sign that symbolising no feeding the pigeons.

Some rules operate as points at specific parts of the site. At Trafalgar Square there is a point rule that prohibits climbing on the fountains and lion statues. There are special access rules related to the Roman Theatre and Odeon at Hashemite Plaza. In these examples the rule itself is a point and the physical expressions of that rule (as signs) are also points. Signs advising of specific rules were highly visible and located adjacent to the area or object they related to – for example 'no entry' signs in the fountains at Trafalgar Square (Figure 8.8). Signs at Trafalgar Square were written in English but included pictograms indicating an anticipated multilingual audience. This accords with the site's identity as both a tourist destination and important landmark for locals. The same is observed at Hashemite Plaza. Signs are positioned adjacent to the place of the rule and are written in Arabic and English. This indicates an expected audience of locals and predominantly English-speaking tourists. Federation Square has few site-specific rules but does feature signs advising not to smoke or cycle in certain places, again with signs located close the relevant area (Figure 8.8). All the rules are written in English only, although many feature pictograms. Visible rules that operate as points require proximity between the physical expression of the rule and the thing that the rule is about.



Figure 8.8: 'No entry' sign at the fountains at Trafalgar Square (left). And, a sign and rope barrier prohibiting bicycles on the ramp at Federation Square (right).

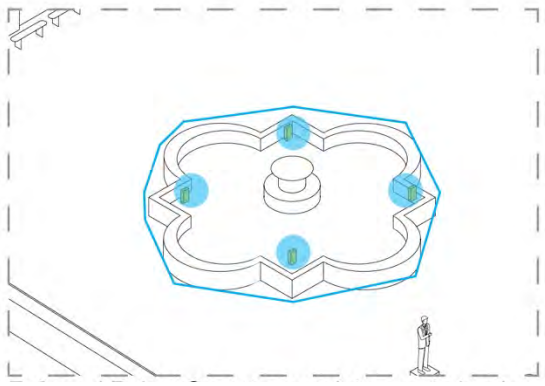
Non-site-specific rules and regulations (such as state or national laws) are overlays that operate at a conceptual level and are not physical elements in the space. As such, they do not respond to, rely on, or operate within any spatial condition. Such rules and regulations will naturally have an impact on the use and design of the space, but it is a one-way interaction not a dialogue. Rules and regulations are not a physical element in space until they are written down and visibly projected, at which point they operate as points and rely on adjacency and open visibility. However, site rules provide a basis for a network of relationships between people and physical elements across the sites. Spatial regulation justifies the physical controlling security measures used and observed.

8.3.2 Enforced Rules

The enforcement of rules and regulations can operate as a point or a border (Figure 8.9). Enforcement of rules depends firstly on the presence of rules (irrespective of their visibility in the space) and the presence of an authority (police, military or private security personnel). Enforcement is directly tied to surveillance measures. However, where police, military and private security can operate as vectors, their enforcement of rules occurs at a point in the space. Enforcement creates a border between what is considered appropriate behaviour inside the space, and what is appropriate outside the space.[424] In order for a rule to be actively enforced, those with authority to enforce it must witness it being broken. As such, the enforcement of rules requires visual access through the space. This is enabled by active surveillance measures including CCTV recordings. Interestingly, at both Trafalgar Square and Hashemite Plaza, a *high* presence of police (combined with military at Hashemite Plaza and heritage wardens at Trafalgar Square) was matched by a *high* level of observed rule enforcement. However, at Federation Square, a *high* presence of both police and private security was observed but only a *low* level of active enforcement. The relationship between active surveillance and rule enforcement is

[424] Hinkel, "Private Encounters and Public Occupations: A Methodology for the Exploration of Public Space."

inconsistent across the case study sites. It is more useful to consider this security measure in terms of its operational, rather than spatial, relationships. It is dependent on surveillance and structures of authority more than it is on any property of the space (barring visual permeability).



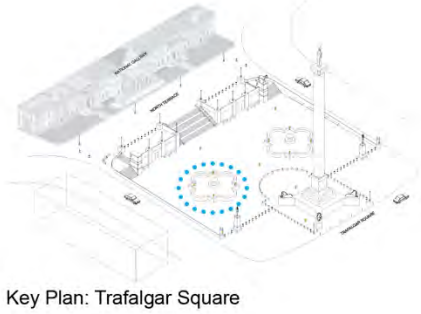


Figure 8.9: Enforced rules are points that creates borders around spaces.

8.3.3 Behaviour Implied by Design

Design features that imply appropriate behaviours operate as regions within the site (Figure 8.10). The behaviour that is implied by a particular design feature relates only to that feature and its vicinity, and not to the wider site. Few relevant examples of this control measure were observed. There were, however, many examples of irrelevant examples of functional features implying preferred behaviours such as stairs and balustrades etc. No relevant examples were observed at Trafalgar Square, and only a small number of examples were observed at Federation Square and Hashemite Plaza. For example, at Federation Square many of the concrete block elements are inlaid with projecting metal strips that prevent skateboarders using them (Figure 8.11). It might be expected that where preferred behaviour is not indicated by built form it is communicated to users of the space in other ways through visible rules or the active enforcement of rules. However, no direct relationship between these measures was observed. At Federation Square the presence of behaviour rules implied by design was measured as *medium*, with a *high* number of visible rules and a *low* measurement of enforced rules. At Trafalgar Square a *low* measurement of implied rules is compared with a *high* measurement of both visible and enforced rules. And, at Hashemite Plaza, there was a *medium* presence of both implied rules and visible rules, and a *high* presence of enforced rules. It cannot be concluded that an increase in one regulatory measure compensates for a lack of another type of regulatory measure.

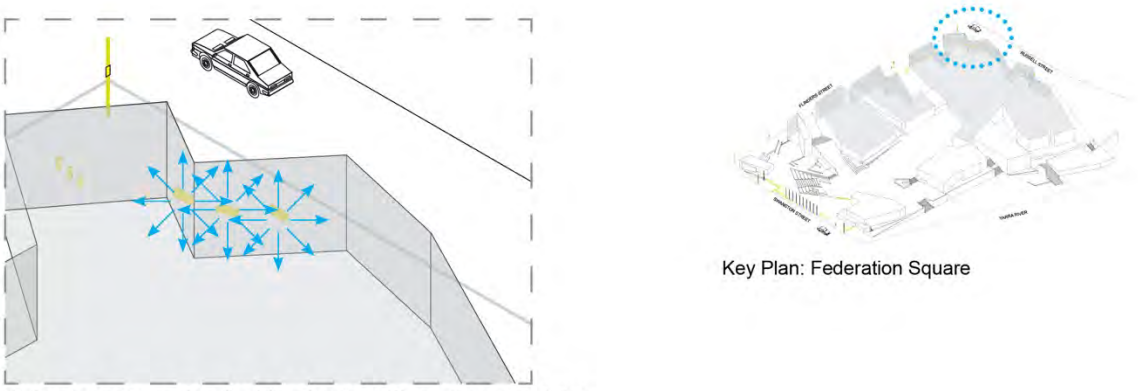


Figure 8.10: Stone barriers imply unsanctioned behaviour in the surrounding region.

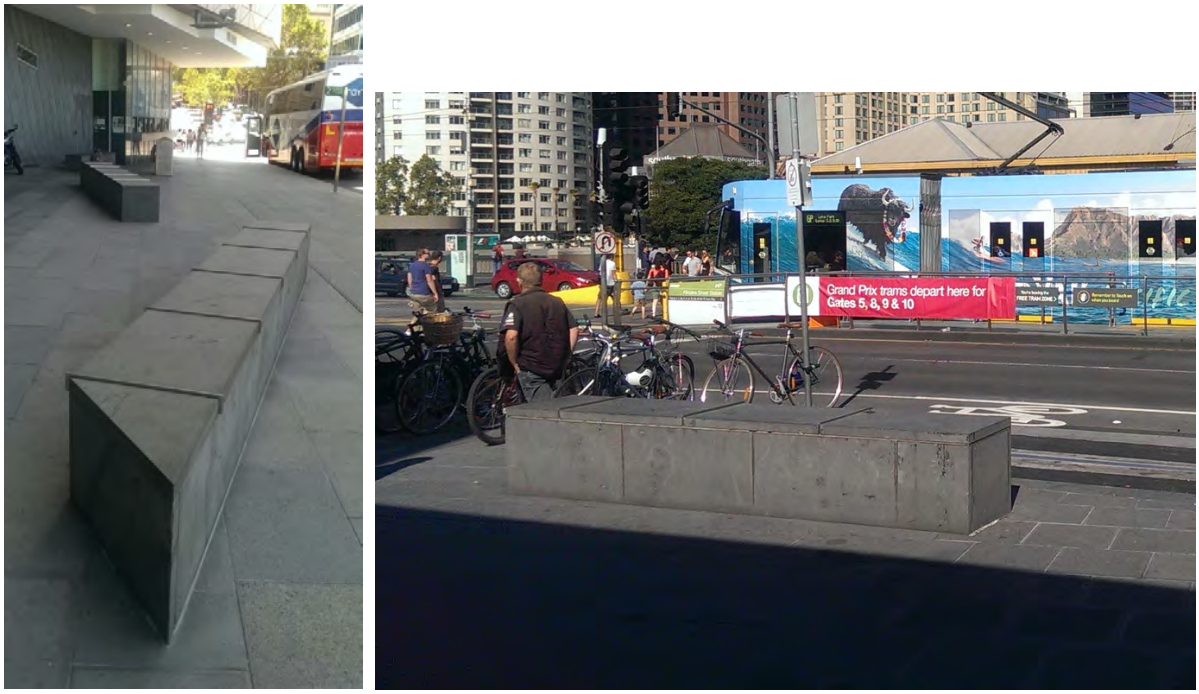


Figure 8.11: Concrete and bluestone barriers at Federation Square are inlaid with metal bars that prevent skateboarders using them to perform tricks. The barriers, and surrounding region, become undesirable to skaters.

8.3.4 Site Branding

Site branding is the most obvious and widely applied regulatory procedure that is found consistently across all three sites. It is, however, not really a rule or regulation. Rather, branding involves the communication of identity, authority, appropriate behaviour and management / power structures within the space. Site branding involves practices of spatial identity and meaning through creation, negotiation, and renegotiation. There are complex and, at times, competing layers of meaning in public spaces. Spatial identity exists in collective consciousness and survives through memory and

cultural narratives about that space.[425] Control of spatial narratives, particularly where meaning is contested, is a way to fix a site's identity and close it against renegotiation. A fixed spatial identity gradually becomes a site brand which then communicates a preferred site identity.[426] Branding signals to users the types of behaviours that are appropriate for that spatial identity; and reinforces the process of identity fixing, whereby the space itself projects the official narrative created for it, precluding the communication of competing narratives.[427] In other words, public spaces have multiple narratives and meanings that are continually renegotiated by users. It is possible for a preferred, official identity to be embedded into a place through curated narrative in an effort to fix that identity and close the space against further renegotiation of meaning. Spaces with identities fixed in this manner are branded. Site branding creates regions and forms an identity overlay across the entire site (Figure 8.12).

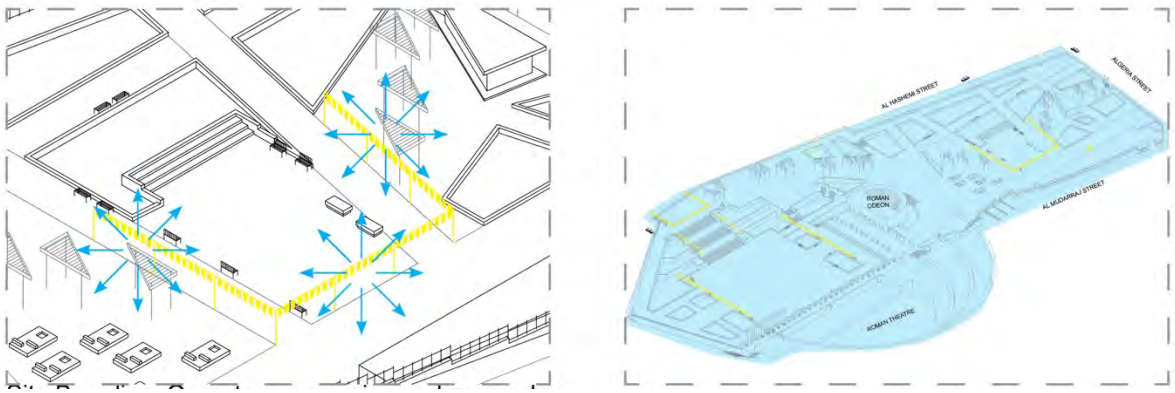


Figure 8.12: Branding operates in regions and forms an overlay across the place.

Narrative and meaning can be embedded in a space in multiple ways to create a brand. The most obvious is the name of the place and what it refers to. Each of the case study sites have names that indicate meaning about that space. Federation Square is named to commemorate the federation of Australia in 1901, indicating a narrative of national identity, commemoration, history and a sense of community coming together. Trafalgar Square is named for Britain's naval victory against France and Spain at the battle of Trafalgar in 1805. The narrative is of national identity, military pride, and of celebration. Hashemite Plaza is named for and celebrates the Jordanian royal family, the House of Hashem. This is a commemoration of the Kingdom, a celebration of the person of the monarch, and a

[425] Dovey, *Becoming Places: Urbanism/Architecture/Identity/Power*. And, Hinkel, "Private Encounters and Public Occupations: A Methodology for the Exploration of Public Space."
[426] Miller, "Consumption as Control: Historical Relationships between Regulated and Unsanctioned Practices of Consumption in Public Squares."
[427] Anita Bakshi, "Urban Form and Memory Discourses: Spatial Practices in Contested Cities," *Journal of Urban Design* 19, no. 2 (2014).

recognition of the Hashemite family's importance in Jordan and the wider Arab world.[428] In Amman more broadly, visual representations of the monarchy have been used to shore up authority in the face of internal political dissent, broadcasting an identity of authority and unity.[429]

Narrative is also embedded in place through the built form and iconography. A very obvious form of branding and marketing is Federations Square's 'F' logo (Figure 8.13). The logo is used in various places through the space on signage and bollards etc to reinforce the brand identity, and management authority, attached to the place. Trafalgar Square has a symmetrical, regimented layout that reinforces ideas of military precision and order, as well as the aesthetic design approach of the Victorian-era in which it was designed. The main feature of Trafalgar Square is Nelson's Column. At over 50 metres tall and with a bronze statue of Admiral Lord Nelson at the top, the enormous memorial column ensures that the memory of Nelson dominates the Square as well as the surrounding area. The column represents collective memory and a dominant narrative that dominates the space both conceptually and physically. At Hashemite Plaza, the national flag of Jordan, and that of the Greater Amman Municipality, are flown throughout, communicating the connection to place and history. The threads of history that run through Hashemite Plaza are significant and contribute to a complex national and place identity. Branding is an overlay that is applied across all three case study sites. It links each place to larger urban narratives and positions places within people's psychosocial maps of their city.

[428] Peter Gubser, *Jordan: Crossroads of Middle Eastern Events* (Boulder, Co.: Westview Press, 1983). And, Nigel J. Ashton, "Love's Labours Lost: Margaret Thatcher, King Hussein and Anglo–Jordanian Relations, 1979–1990," *Diplomacy & Statecraft* 22, no. 4 (2011).
[429] Elena Corbett, "Hashemite Antiquity and Modernity: Iconography in Neoliberal Jordan," *Studies In Ethnicity & Nationalism* 11, no. 2 (2011).

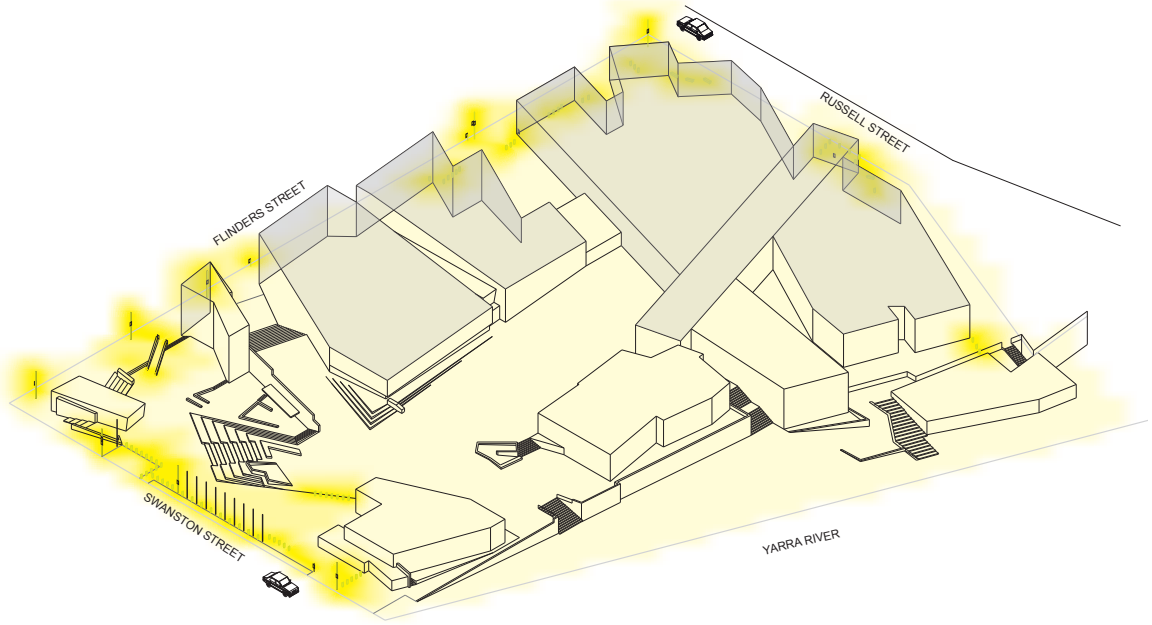


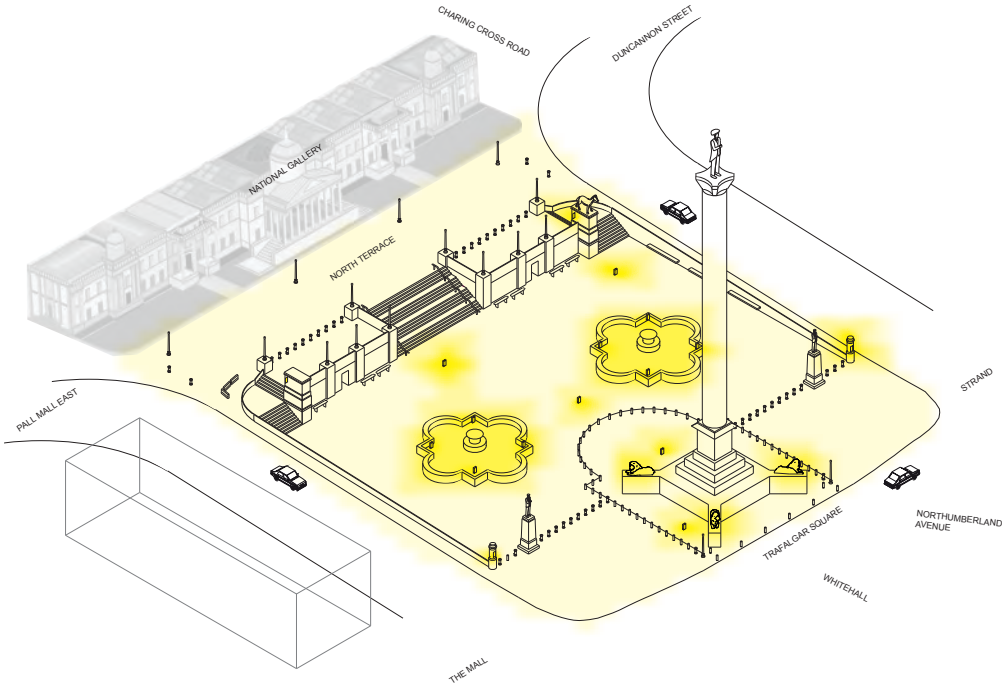
Figure 8.13: ‘F’ logo is used on bollards throughout Federation Square (this is the carpark) to brand the space.

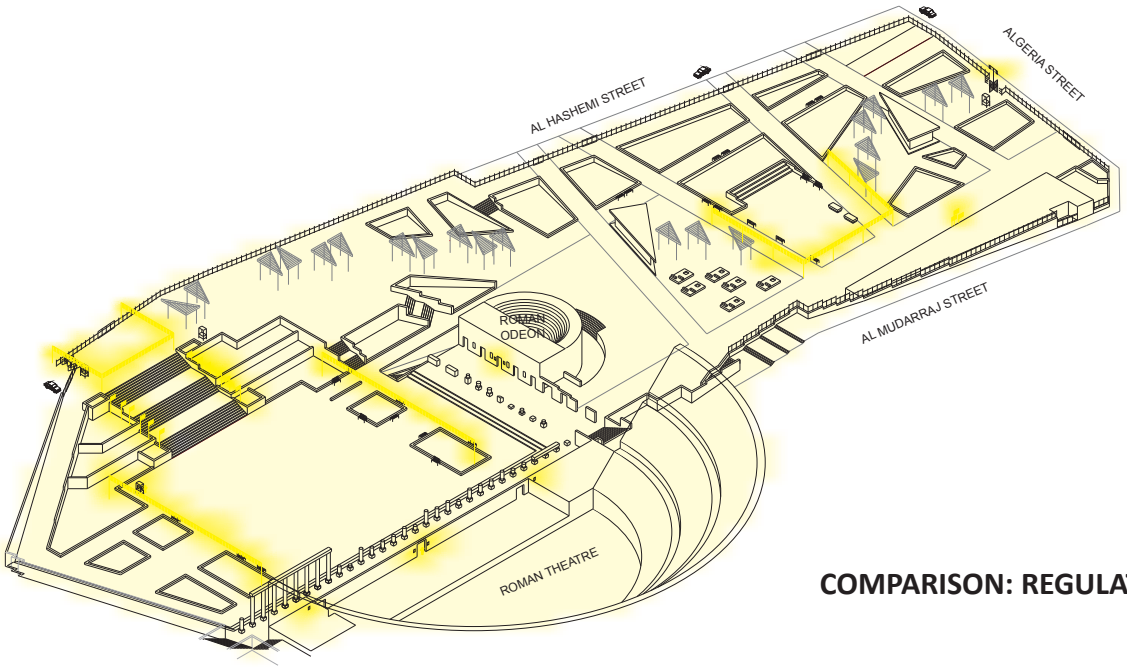
8.4 Regulatory Procedures: Concentration

Regulatory procedures perform slightly differently from the other security strategies as they form an overlay throughout the sites. When rules and regulations are physically expressed in the site, in the form of signs or branding, they can be plotted onto the gradient maps. Similarly, where specific rules apply to sub-areas in the site, these areas can be shown on the gradient map. Concentrations are evident at each site, in addition to the base level of regulations acting throughout. This is most evident at Federation and Trafalgar Squares as these sites explicitly display rules and preferred behaviours. At Federation Square explicit rules are located along the perimeters of the space only. Branding elements are distributed through the body of the space in the form of ‘F’ branded bollards and signs. There is a slight concentration of these at the boundaries due to the increased use of bollards. At Trafalgar Square, visible behaviour rules are dispersed throughout the body of the square and are located adjacent to the location specific elements. Branding is concentrated at the perimeter of the main body of the Square, being the original site boundary, in the form of monuments and statues. These reinforce the preferred identity and meaning of the site as a national military monument. At Hashemite Plaza the only examples of visible rules are at thresholds, being the turnstiles and the entrances to the

Roman historical sites which state that a ticket is required for access. Site branding is evident in two clusters of flags (national and municipal) at the gathering areas. There is no universal pattern or logic to concentrations of regulatory measures. They are variously located at perimeters, thresholds or dispersed through the space. This makes sense as these rules are specific to each place, or a part of it, and therefore cannot represent a universal condition across the sites. However, in the case of branding, the elements are located for maximum visibility.







COMPARISON: REGULATORY PROCEDURES

8.5 Fortress Measures: Properties & Operation

Fortress measures control through physical force and exclusion of potential threats. In comparison, both surveillance and regulation are coercive control because they use authority to suggest force. Panoptic measures encouraging self-managed behaviour by signalling observation and authority. Regulatory measures create a framework of permission and prohibition around spatial identity, preferred behaviours and established penalties. Fortress measures, on the other hand, do not rely on suggestion and collective understandings of power relations. Controlling or preventing site access by physically closing the space is a direct action that is easily implemented to force the space to operate in a particular way.

Fortress measures were not universally or thoroughly applied at the case study sites, despite the ease and efficacy of their implementation. Of the three sites, Hashemite Plaza was observed to rely on fortress measures most heavily, whereas Federation and Trafalgar Squares were physically more open and accessible. While fortress measures are easily implemented, they are unsophisticated and make the space feel enclosed and restricted. Fortress measures function universally; they close the space equally against threats and non-threats (in the form of individuals, groups or vehicles). In order to function more precisely against threats while maintaining openness, fortress measures need to be combined with panoptic and regulatory devices that discriminate between what is appropriate at the space and what is potentially threatening. Fortress measures provide the most legible evidence of the balance between controlling and securing a space while ensuring it appears open and accessible to users. As such, while fortress measures may be easy and effective, there are negative spatial outcomes associated with their implementation which limits their utility. Fortress measures include physical access barriers, spatial segregation (different rules in different places), limited hours of operation, and privatisation.

8.5.1 Physical Access

Physical access relates to gates and barriers as well as the visibility of access. Physical access control is achieved with a wide variety of features operating as points or borders. Bollards, gates and fortified elements such as concrete planter boxes and seating, all operate as points. Fences and barriers operate as borders, or thresholds, that create a distinction between inside and outside. However, it is possible for multiple point elements to be combined to form a border. For example, a line of bollards is effectively a semi-permeable fence that operates as a border. At each case study site there are examples of both deliberate enclosure (fences) and contextual enclosure (topography or adjacent buildings), which function as borders. Each site is fortified through the combined use of built form,

topography and physical elements added to the space, such as bollards and fences. None of the case study sites are completely open and accessible across their perimeters. Furthermore, once visitors have passed through the perimeter, there are often subsidiary layers of fortification deeper into the site. Layering access in this way gradually and sequentially opens up the space. At Trafalgar Square, access is layered but it is direct and legible. All parts of the space are visible and pathways through the space are immediately obvious. Site boundaries are open on two sides, with a semi-permeable bollard fence located deeper into the space. Access at Federation Square, on the other hand, is layered and indirect. The full size and extent of the site is not legible from any one point along the perimeter. Pathways through the site are similarly illegible need to be discovered through exploration. Once inside the Square, there are bollards, barriers and fortified planters located in the middle of the site. At Hashemite Plaza access is indirect and but it is not layered, and pathways through the site are visible but physically restricted. Hashemite Plaza has the most restrictions on access, being completely encircled by fences on three sides, with the steep hillside forming a natural barrier at the fourth side. Access is limited to a small number of gates. While access is not prevented, it is not always legible or easy.

Fortress measures tend to be found in open areas, and when arranged in clusters or arrays their operation changes from a point to a border (Figure 8.14). There is an increased density in the array of bollards where the site is busiest and is closest to roads. Bollard arrays form semi-permeable borders allowing filtered access to pedestrians and preventing access to vehicles. It would therefore seem likely that the array density would increase closer to roadways. However, this condition was not observed at Trafalgar Square where lines of bollards are located further into the site and not at the perimeter. Of the three sites, Trafalgar Square is the most vulnerable to hostile vehicle ingress as it is surrounded by busy roadways. And yet it is the most open at its perimeters, with vehicle access to at least part of the site not physically prevented. There are no examples of other point elements like fortified planter boxes and seating. Hashemite Plaza, however, has raised planter beds and bollards arrayed throughout the space. The bollards are small concrete spheres, and are clustered through the open, shaded parts of the site. Sphere bollards are only found at the site perimeter in one location at the north-west, outside the site adjacent to a vehicle crossover and gate. Federation Square has a similar combination of bollards and fortified planters, barriers and seats. These are evenly spread through the site perimeter and the deeper parts of the space. Notably, however, additional perimeter bollards have been added to the site at least twice in response to perceived threat events. Firstly,

during the construction period immediately after the September 11 attacks, and again in 2017 in response to the Bourke Street hostile vehicle attack.[430]

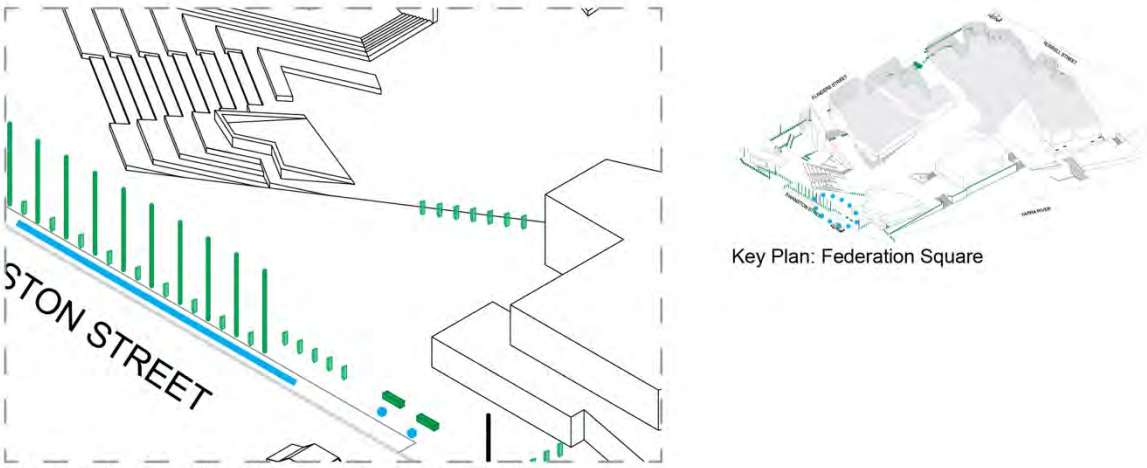


Figure 8.14: Fortress measures act as points, but when combined form a border.

There is an unexpected, indirect relationship between site perimeters and physical access control measures deeper within the sites. However, there is a connection between access control measures and types of spaces, or sub-areas, within each site. Bollards at Trafalgar Square form a boundary along the North Terrace between the area of the former road, which acts as a major pedestrian thoroughfare, and the smaller areas between the stairs which are used for dwelling and observing the site. The bollards delineate a space of flow and a space of occupation. There is a similar condition at Federation Square, where bollards located deeper into the site separate an area along Flinders Street used for pedestrian flow, with a recessed space between buildings used for gathering and dwelling. In both these examples, bollards are used to divide sub-spaces that have different functions; they are not used as a preventative barrier. Point-based fortress measures, such as bollard arrays, relate to both spatial and typological boundaries. They define perimeters of space as well as function.

Fortress measures that operate as borders, such as impermeable fences, are found at each of the three case study sites and are always located along the perimeter. At Federation Square, there are short fences at two places – at the north-west corner (the busiest point surrounding the site) and along the north boundary at the east side. Neither of these areas provide unimpeded access through the site as there are buildings directly behind. They are installed between the pedestrian footpath and the roadway, so it is plausible that are intended to prevent pedestrians crossing into the road. At Trafalgar Square, stone retaining walls along the east and west side boundaries form low barriers that separate the main body of the square from the footpath. The metal picket fence at Hashemite plaza

[430] Andrews, "New Concrete Safety Barriers to Protect Our City."

runs around the entire perimeter of the site except for part of the southern boundary where the natural topography forms a hill, with the Roman amphitheatre cut into it. Hashemite Plaza is the only site that has gates within its fences. At both Federation and Trafalgar Squares the fences are short and are used to form a solid boundary at a particular location. The stone retaining wall and fences at the north end of Trafalgar Square delineate the boundary of the site and provide safety at the ground level change; their primary purpose is not physical access control. At Hashemite Plaza, by contrast, the fence is only used to control and restrict access into the site. It is impermeable for both pedestrians and vehicles. Some of the pedestrian access gates were observed to be open some of the time, often with police monitoring. The vehicle gates were generally closed, but for one at the south-east which was used by police and maintenance vehicles and always with police observation.

8.5.2 Segregation

Segregation was used as a control strategy at all the case study sites. While it was used in slightly different ways it always operated as a border (Figure 8.15). At Federation Square, space was segregated according to public / private access, and programmed event / non-event. The main open spaces are always open and accessible during events, however some parts of the site were segregated and restricted for that event. For example, the space in front of the big screen was enclosed with temporary fencing for an event, without preventing access to the site more generally (Figure 8.16). This segregates an area for people to use for viewing the event, separating it off from other uses of the site for the duration. Businesses operating in Federation Square have areas segregated off from the main space for use by their customers. Segregated use is implied by barriers, or by objects signalling use such as café umbrellas and tables. At Trafalgar Square, segregation was used to separate space for events or private access, and to delineate areas of specific heritage value. During the Sikh Genocide memorial demonstration, there was no public access to the area at the base of Nelson's Column which was used for event equipment and infrastructure (Figure 8.17). A similar use of segregation was observed as sections of the Square were regularly cordoned off for cleaning and maintenance (Figure 8.18). All of these examples are segregating the space for functional purposes, ensuring the safety of the public and proper operation of equipment. While segregation clearly controls use of, and access to, the space, it is not about security. Segregation based on historical significance and heritage value was observed at both Trafalgar Square and Hashemite Plaza. The lion sculptures at Trafalgar Square have specific values that are deemed to require protection and no access is permitted. At Hashemite Plaza, access to the historically significant Roman Theatre and Odeon is permitted, but it is restricted and monitored.

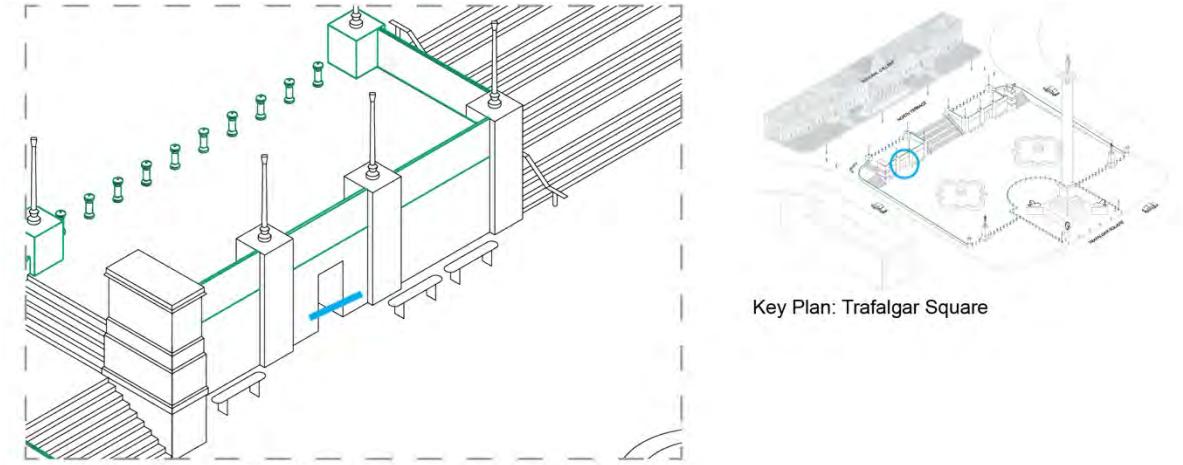


Figure 8.15: Spatial segregation creates a border between openly accessible space and restricted space.

Segregation creates spatial divisions but does not create an overall closed or inaccessible site. It relies on site-specific rules, enforcement of those rules, and active surveillance through police or private security. In all examples, segregation was used in a restricted and specific manner. It responds to a localised safety or security concern rather than larger, site-wide control objectives. Segregation can occur in any area or type of space and is a passive form of control through implied exclusion.[431]

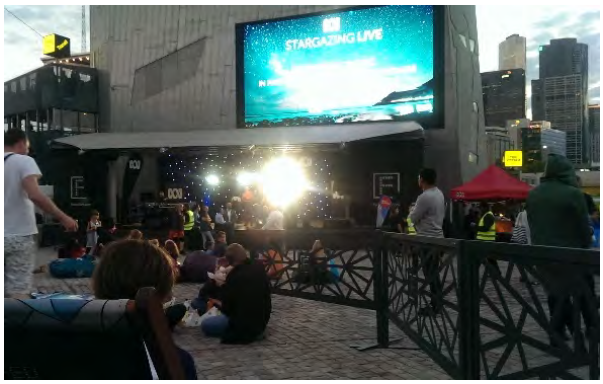


Figure 8.16: Temporary fencing cordoning off an area for people to view the big screen during an event at Federation Square. The site is still open.



Figure 8.17: Temporary barriers segregating the area in front of Nelson's Column at Trafalgar Square.

[431] Matthew Carmona et al., *Public Places - Urban Spaces.* (Hoboken: Taylor and Francis, 2011).



Figure 8.18: Areas of the site fenced off for paving repair (left), and for regular cleaning (right).

8.5.3 Hours of Operation

Varied hours of operation are a form of spatial segregation that operates as a spatial and temporal border, rather than one between different uses (Figure 8.19). It can be applied to the site as a whole or to specific areas within the site. Hashemite Plaza was the only site that had opening hours; both Federation and Trafalgar Squares were open and accessible at all times. Privately managed commercial ventures at Federation and Trafalgar Squares did have varied hours of operation. However, these spaces are privately operated and are therefore outside the scope of this research. Hours of operation at Hashemite Plaza are enforced through the extensive use of fences, allowing the space to be completely closed to access at night or during events. While segregation is a passive form of control through exclusion, hours of operation control with active exclusion. It is supported by fortress measures (fences), site-specific rules and surveillance.

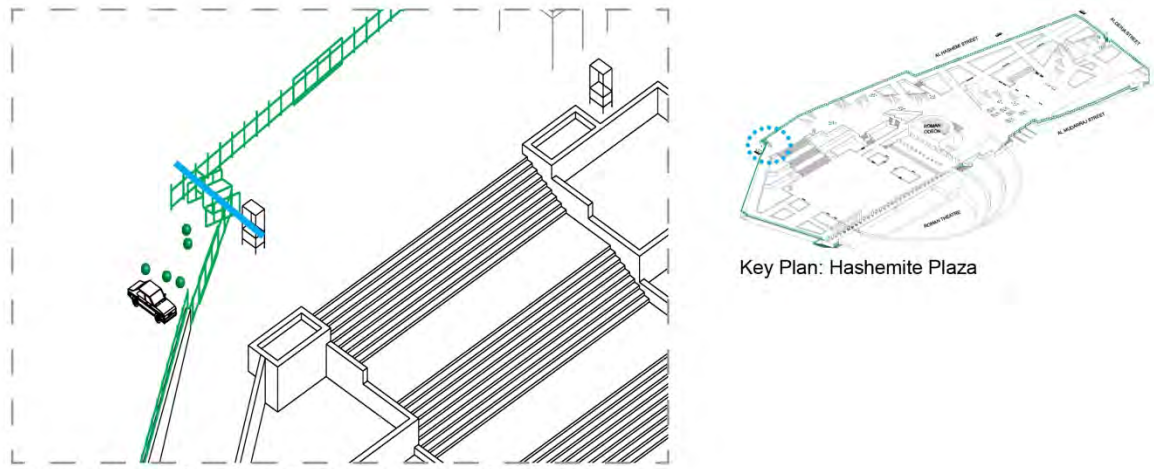


Figure 8.19: Hours of operation create spatial and temporal borders between inside and outside the space.

There is a trade-off between access to the space and being monitored while in the space. Hashemite Plaza is the least reliant on surveillance measures but has the most restricted access via hours of

operation and physical barriers. People are unlikely to be actively surveyed while in the space, but they can also be excluded from the space. At both Federation and Trafalgar Squares, access is very open but there is heavy and constant surveillance. Both segregation and varied hours of operation demonstrate that control measures rarely operate in isolation they overlap with and support the functioning of other measures to form an overall balance of control and openness. This system of relationships is managed by those with power over the space.

8.5.4 Privatisation

Privatisation is only relevant to Federation Square, which is a privately managed, publicly owned space. It operates as an overlay across the site. While the café at Trafalgar Square is privately managed it does not operate as part of the public space and is outside the scope of this study. Private management at Federation Square is communicated to visitors through extensive site branding, uniformed FSM staff, programmed activities and events, and the use of 'private property' signage (Figure 8.20). Privatisation provides additional control compared with spaces that are publicly managed and owned. Németh and Schmidt explain that privatisation tends to produce sites that are more heavily controlled, with increased restrictions on access and behaviour.[432] Privatisation allows for a greater range of site-specific rules, surveillance and fortification in support of private interests. This can be coded into the design of the space through branding and programming, which is seen at Federation Square. While the site remains publicly accessible, it does not operate with as much freedom and openness as Trafalgar Square, for example, which is fully public.[433] However, observations at Federation Square show it is not significantly more controlled or with a heavier emphasis on security overall than the other two sites. As such, while privatisation certainly creates the potential for an increased application of controlling security, there was not a notable difference in the operation of the site. Privatisation is an invisible property of the site that can be expressed physically and supports potential increases in other control measures.

[432] Németh and Schmidt, "The Privatization of Public Space: Modeling and Measuring Publicness."
[433] George Varna and Steve Tiesdell, "Assessing the Publicness of Public Space:The Star Model of Publicness," *Journal of Urban Design* 15, no. 4 (2010).



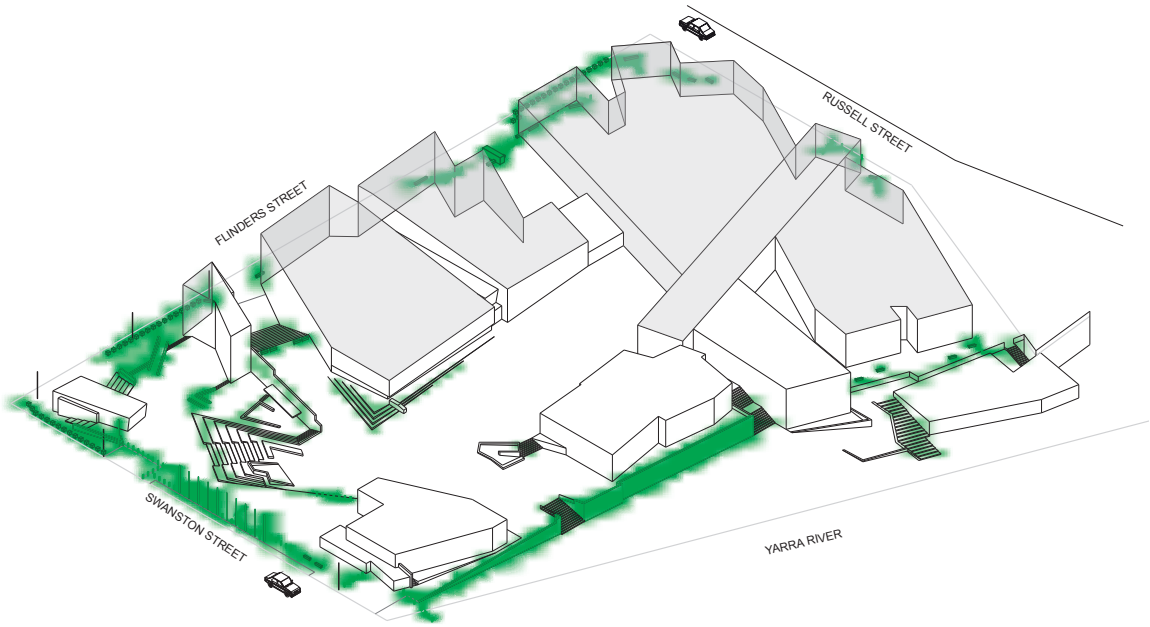
Figure 8.20: Private property sign at Federation Square's west boundary. This information is not highly visible.

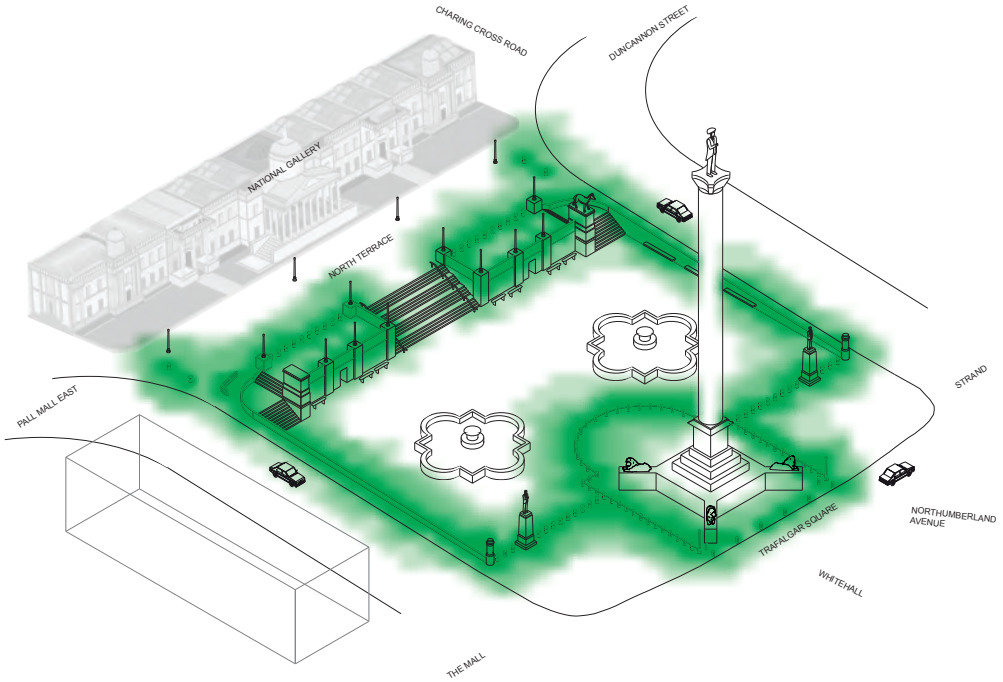
8.6 Fortress Measures: Concentration

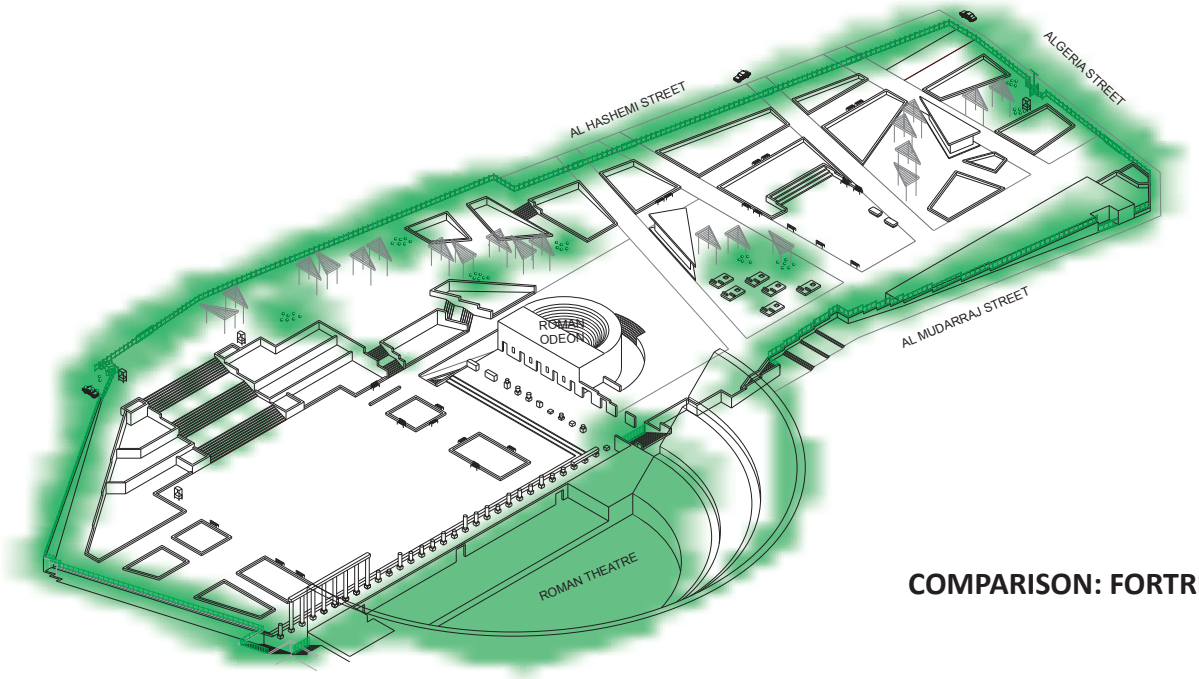
Fortress measures across each site follow the same pattern – concentrated at perimeters with additional layers deeper into the site aligning with higher risk areas. Concentrations of fortification at perimeters is an intuitive and unsurprising result. Fortress measures at Federation Square are concentrated along the west and north boundaries, adjacent to busy roads. These boundaries are both vulnerable to hostile vehicle attack and are symbolically valuable with high visibility and occupation. In this case, an increase in symbolic value and spatial vulnerability is paralleled by an increase in physical fortification. It is notable that there is a concentration along the north despite the buildings that run along this side. Fortress measures provide protection to pedestrians between the buildings and the road, and increase the stand-off distance, protecting the buildings from vehicle-borne attack. There is a comparable amount of fortification along the south, but it is formed from retaining walls which do not operate exclusively as security measures. Trafalgar Square is impermeable along the east and west, and permeable along the north and south where rows of bollards provide filtered pedestrian access. The south-east and south-west corners are open with bollards located deeper into the site.

Fortress measures at Hashemite Plaza are concentrated at the perimeter, formed of steel fences on three sides, and retaining walls towards the south.

Secondary layers of fortification are located deeper into the body of each site and reveal some interesting approaches to access. These secondary layers reveal intent to provide additional security to sensitive areas should be perimeter fortifications fail. Permeable perimeters at each site allow access a short way into the space before there is a secondary layer of fortification. The most permeable sections of Trafalgar Square's boundary are the south-east and south-west, either side of Nelson's Column. Forming two square-shaped open areas immediately inside the site boundary and demarcated by rows of bollards along two sides. These areas are often used for vehicle parking for events, police and maintenance staff. Vehicle access into these areas is desirable in support of the proper functioning of the place. Unwanted vehicle access is controlled and restricted by the secondary perimeter layer of bollards. Secondary layers of fortification at Federation Square are concentrated in the north-west corner. This correlates with the location of gathering spaces and the highest populations dwelling in the place. The secondary layers are formed by a mix of bollards and concrete barriers. These elements are permeable for people, and form part of the site furniture that people can sit on or interact with. Crowds are at higher risk for attack, so it is expected that additional measures are used to protect them. As seen at Trafalgar Square, there are some permeable perimeters of Federation Square that are open to vehicles. Hashemite Plaza has the highest concentration of boundary fortifications. Additional layers, in the form of spherical concrete bollards, are not located following the same logic as at Federation and Trafalgar Squares as they do not provide additional protection at gathering places. Being small and spherical, their capacity to protect against hostile vehicles is limited; they appear to be primarily a decorative element.







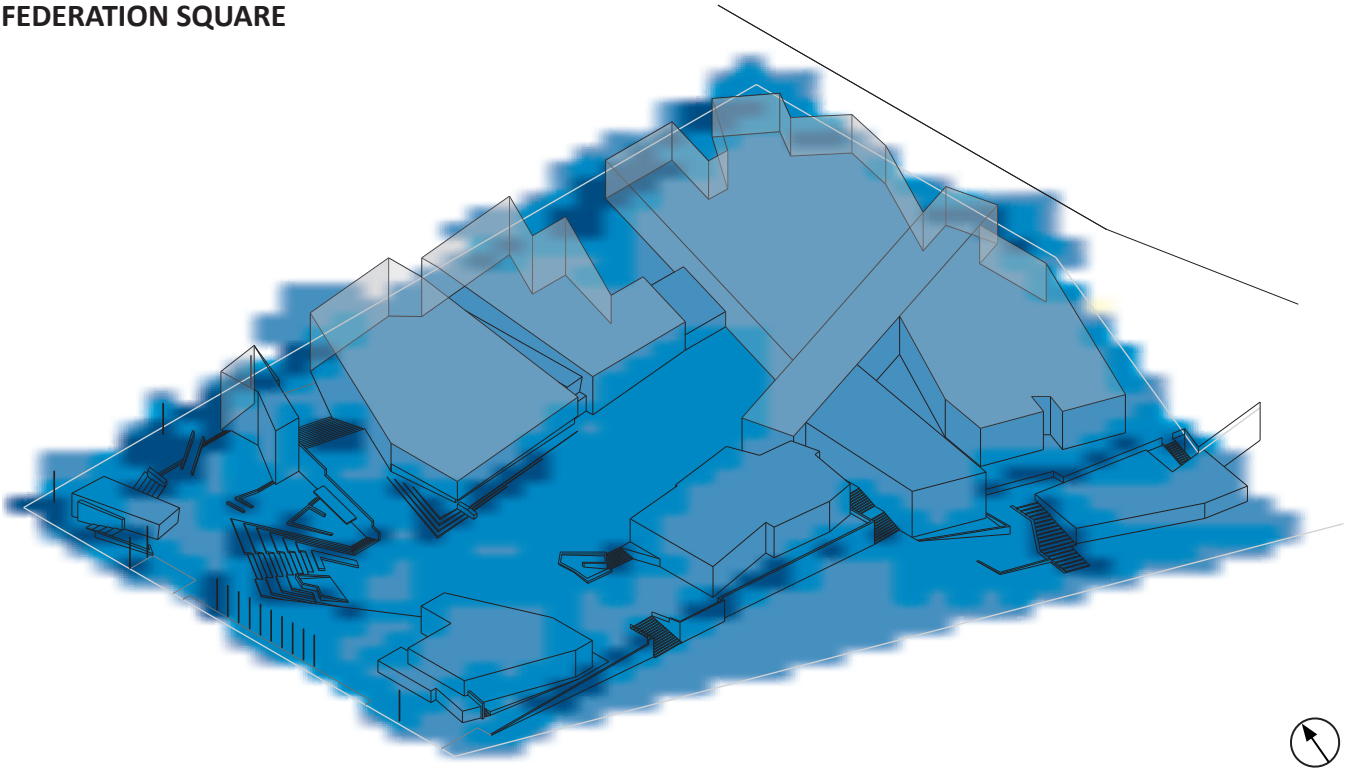
COMPARISON: FORTRESS MEASURES

8.7 Combined Concentration of Security Measures

The previous sections reviewed each security measure in turn, including the concentration at each site. The following section builds on that to directly compare the concentration of security measures across the case study sites. The results of each security category are combined onto a single map to show the overall concentrations of security measures. There is a total of 12 maps, four per site. Where measures are closely located, we begin to see patterns of control forming and can make comparisons within and across each site. The utility of spatial diagrams, for both description and analysis, is informed by the work of Dovey, Pafka and Ristic. [434] These maps show the overall combined concentration of control at each site, unrelated to control type, revealing which parts of the sites are most heavily controlled. Some of the most concentrated areas form because there is functional overlap where objects can perform more than one controlling function. Dual purpose objects most often relate to fortress measures that people can sit on, for example, at which point they also provide opportunities for passive surveillance. At each of the sites there is a clear concentration of security measures in two types of space: thresholds and gathering areas. If we assume that controlling security is concentrated according to areas of high risk, then these diagrams also indicate concentrations of vulnerabilities. The diagrams reveal that the most vulnerable areas, and therefore most highly controlled, are thresholds and gathering places. These are areas with high volumes of people, moving into the space and / or dwelling within it. Again, this demonstrates the duality of threat/vulnerability inherent in human populations in public spaces. People are simultaneously the source, and the target, of threat. The most vulnerable part of a PMG is the area with the highest population, and the most effective way to control that risk is to monitor and filter who can enter the space, and place rules around what people can do once they are in. These are preemptive measures. Exclusion stops potential threats from entering the site. Rules set up a range of acceptable behaviours which are then monitored to identify non-compliance as a marker of threat potential.

[434] Dovey, Pakfka, and Ristic, *Mapping Urbanities: Morphologies, Flows, Possibilities*.

FEDERATION SQUARE



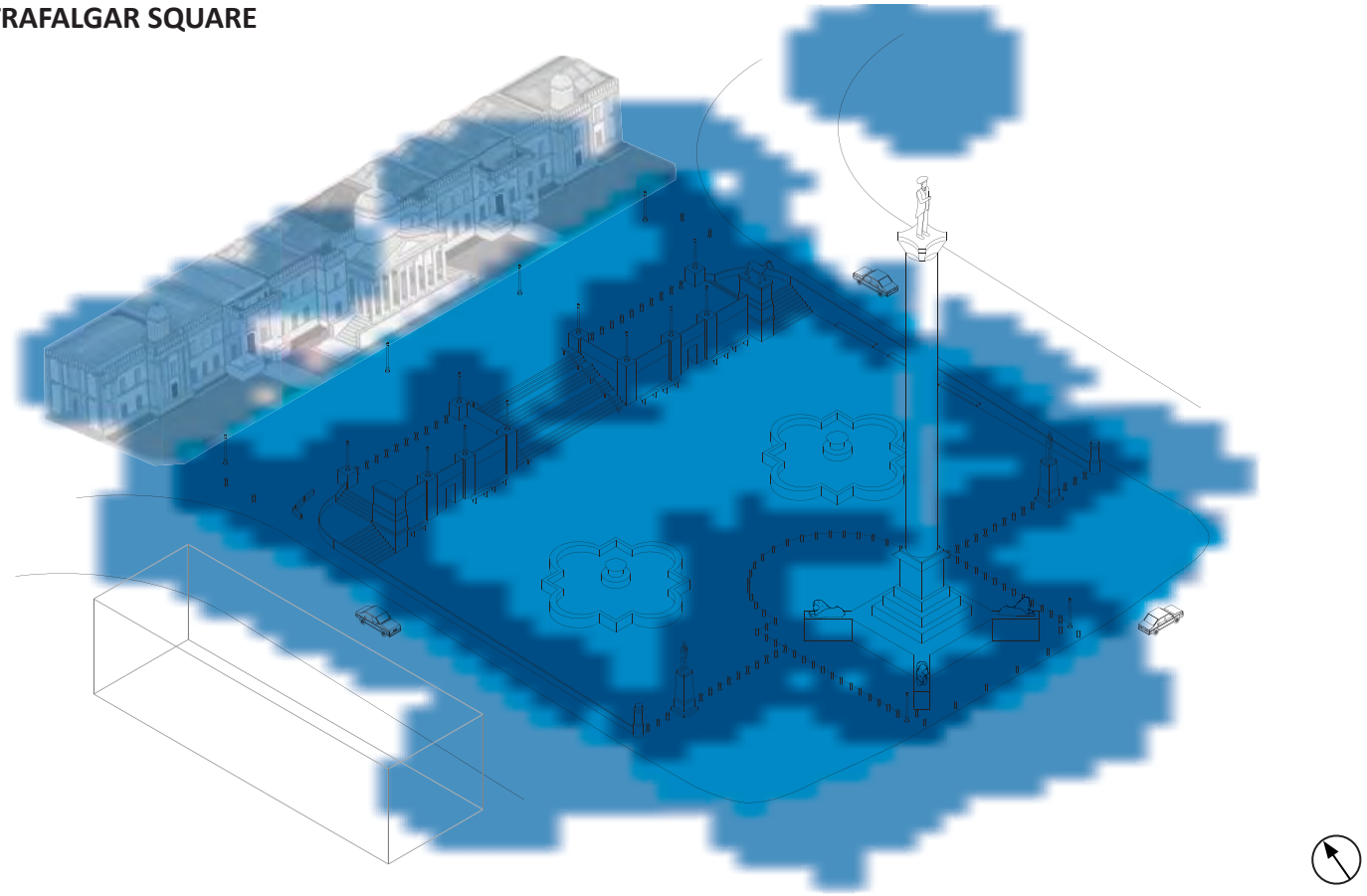
Combined map, showing intensity of security presence overall. Noting that as regulation is applied across the entire site, there are no points without at least one measure. Surveillance permeates the space quite thoroughly, so there are generally at least two measures at all points. Three shades of blue are used to indicate relative intensity of measures at each point, as follows:

Light blue: one measure present

Medium blue: two measures present

Dark blue: three measures present

TRAFALGAR SQUARE



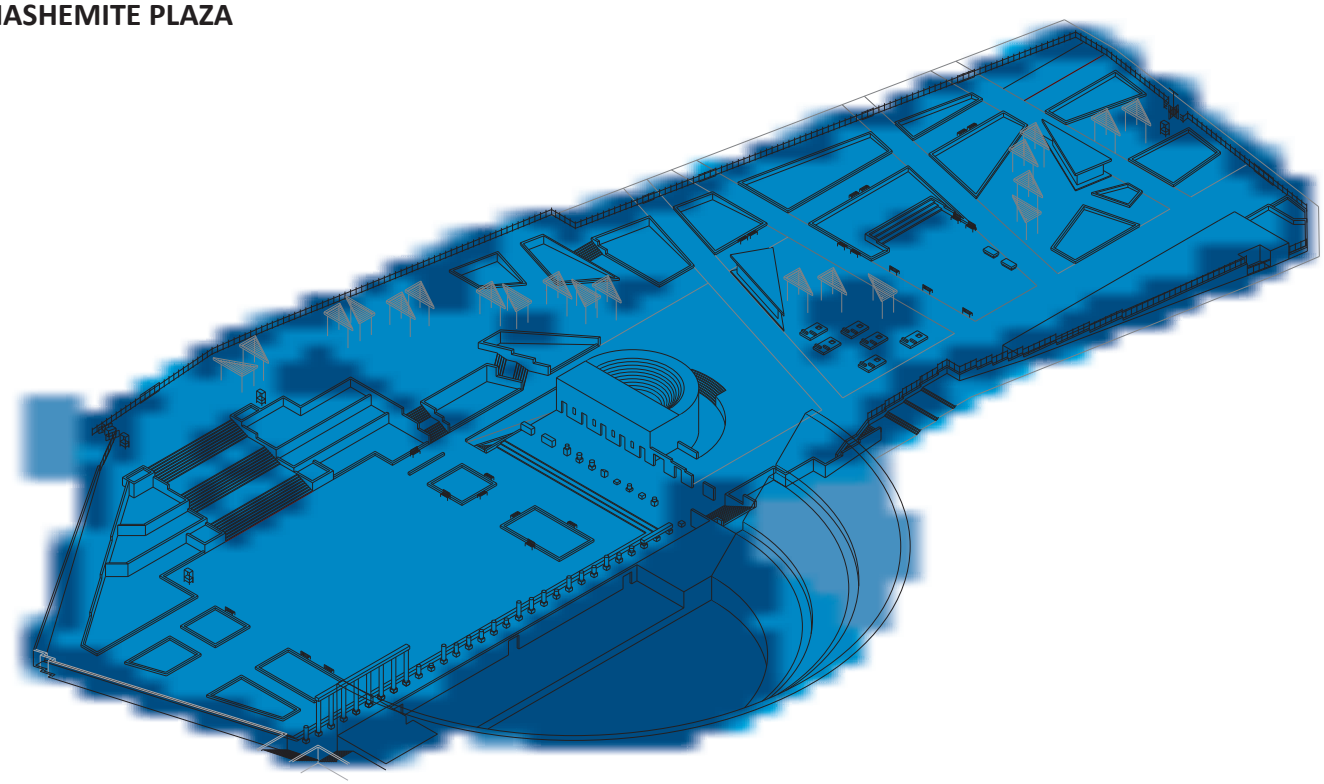
Noting that this example is unique because panoptic measures act on the site while being situated outside the boundaries of the Square. Once again, regulation covers the entire site so there is always at least one measure at any point in the site. Three shades of blue are used to indicate relative intensity of measures at each point, as follows:

Light blue: one measure present

Medium blue: two measures present

Dark blue: three measures present

HASHEMITE PLAZA



Three shades of blue are used to indicate relative intensity of measures at each point, as follows:

Light blue: one measure present

Medium blue: two measures present

Dark blue: three measures present

8.8 Spatial Typologies

This section looks in more detail at the effect of controlling security measures on the operation of spatial types. Each site is conceived as a field of spatial types – perimeters, thresholds, open gathering spaces, corridors, and topographical formations. The development of these spatial types has been influenced by Hillier and Hanson,[435] and by Kevin Lynch.[436] Hillier and Hanson's 'Space Syntax' method uncovers genotypes of architectural social space. These genotypes can be usefully adapted to urban spaces with parallels in their operation if not their form. Syntactic rules apply to a sequence of doorway to room as they do to a sequence of gateway and open space. Lynch identifies paths, edges, districts, nodes and landmarks as essential elements of the mental maps people make when experiencing urban space. These qualities of urban space, except perhaps for districts, describe the case study sites. While these space types are examined individually, they are not discrete. They are interlinked and folded into each other to form a wider socio-spatial assemblage that, with relevance to this study, are shaped by power relations.[437]

This section is interested in how social behaviour within these identified spatial types is impacted by controlling security measures. Carmona refers to Dear & Wolch (1989) and their description of social relations as either "constituted through space", "constrained by space" or "mediated by space". This means that social activity is influenced, facilitated or constrained by the surrounding built form.[438] They go on to explain that physical form does not determine behaviour, but it can constrain or facilitate opportunities for certain behaviours. This section considers how the implementation of controlling security measures further constrains opportunities and human behaviours. Of course, urban form is just one method of social control and the techniques described in this research project form part of wider social, cultural and political systems.[439] Vikas Mehta developed an index to assess the quality of public space in the context of contemporary society that has different requirements of the public realm. Mehta's index reviews space in terms of "inclusiveness, meaningfulness, safety, comfort and pleasurability."[440] Where public spaces are excessively controlled, these positive characteristics are impeded – with the exception, perhaps, of safety. The following is an analysis of how controlling security measures constrain or facilitate behaviours and characteristics within different space types.

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[435] Hillier and Hanson, *The Social Logic of Space*.
[436] Kevin Lynch, *The Image of the City* (Cambridge (MA): MIT Press, 1960).
[437] Carmona, "The Place-Shaping Continuum: A Theory of Urban Design Process."
[438] Carmona et al., *Public Places - Urban Spaces.* P133.
[439] Martin Innes, *Understanding Social Control* (Maidenhead: McGraw-Hill Education, 2007).
[440] Mehta, "Evaluating Public Space."

8.8.1 Perimeters & Thresholds

All sites have semi-permeable perimeters, and generally where there are thresholds there are additional layers of barrier fortification immediately inside. There is a distinction, therefore, between the boundary of security and the boundary of the site. Site boundaries are written in multiple ways. Including the legal definition of a lot area which defines limits of ownership. There is also the visually communicated boundary of inside/outside. This can be indicated with physical barrier elements such as fences, rows of bollards or flag poles. It could also be as simple as a change in ground material indicating a different quality of space inside the space. Additional boundary layers deeper into the site, as secondary fortress measures, tend to blur the integrity of the site boundary and stretch it deeper into the place.

An outcome of blurred site boundaries is that the site's identity, and some uses, can bleed out into surrounding spaces. This is seen very clearly at Federation Square's southern boundary. This edge is defined by a layering of boundaries as retaining walls, building edges, steps, gardens, footpaths and finally the Yarra River. The identity of the Square moves out, across each of these boundaries, into the footpath space in the form of wayfinding signs that maintain the Federation Square aesthetic (Figure 8.21). While it was not observed during the site visits for this study, the public event programme within the Square often spreads out into this river front space with marquees and activities. The spatial design outcome of this is the temporary reappropriation of public space for event programming. This tends to draw in additional visitors to the place and mitigates access legibility issues at this boundary. The legibility issues at the southern boundary are in parallel with this edge demonstrating the most blurring/extending of edge and identity. In this case the extension of the site's programme and identity helps to ameliorate issues of legibility and unclear thresholds into the site. It is also the only edge without vehicle traffic, so it is more easily reappropriated without disruption to the operations of the wider urban place.





Figure 8.21: Wayfinding signage along the southern edge of Federation Square. This area is outside the boundary of the site but visually connects to it through the font and aesthetic.

Secondary perimeters are formed by site-specific behaviour rules that set up a boundary between acceptable and not acceptable behaviours.[441] Segregation is type of secondary perimeter that requires a clearly legible boundary – for example the fountains a Trafalgar Square. There are secondary perimeters at each site. At Hashemite Plaza, secondary perimeters control access to the Odeon, Roman Theatre and the museums in the base of the theatre. There are several additional small buildings within the site with restricted access. These include the police booths, the two 'Children's Library' triangular office spaces, and the service building along the south-east. Secondary perimeters at Trafalgar Square include the ring of bollards around Nelson's Column at the south, and along the edge of the North Terrace, marking the original site boundary. This row of bollards has remained despite the redevelopment and extension of the site to pedestrianise the North Terrace. The effect of secondary perimeters is that they solidify differences in identity, use, significance, value, publicness etc at sub-areas within each place. Secondary perimeters blur the boundary of site / not site, but solidify boundaries of identity difference within the site. This is an interesting condition where meaning is either strengthened or blurred depending on the location of boundaries and any adjacent spatial identities.

[441] Hinkel, "Private Encounters and Public Occupations: A Methodology for the Exploration of Public Space."



Figure 8.22: Buildings in Hashemite Plaza include a Children's Library (left) and the service building along the south east (right).

Perimeters that define acceptable and non-acceptable behaviour can limit access to, and the use of, space.[442] Behaviour and activities are proscribed on both sides of the perimeter, and indicated by site identity and regulatory control measures. Behaviours subject to additional perimeters tend to include free expression, protest, rough sleeping, gathering, small-scale commerce such as busking or peddling.[443] At Federation Square there are advertised prohibitions or restrictions on protest, busking, rough sleeping and behaviours such as smoking or drinking alcohol, which is allowed in some private sub-spaces. These behaviours are controlled by the specific site rules, private management and frequency with which the space is programmed and not available to be used for other purposes. At Trafalgar Square busking is only allowed along the North Terrace. This is not an advertised rule, but is understood and managed within the busking community. Perimeters that control behaviour limit access to the site and indicate a management condition within the place. No direct correlation between perimeters of this type, and physically fortified boundaries was observed.

Both physical and behaviour perimeters are about filtering and monitoring threat and not-threat. Thresholds are a key component of designing out crime and terrorism, as discussed at Chapter 2.[444] Increasing stand off distance between roads and buildings is a target hardening strategy that mitigates the threat of bomb blasts on vulnerable structures.[445] Similarly, creating distance between people and groups reduces their attractiveness as a target for random attack. Controlling and monitoring acceptable behaviours helps to identify behaviours considered potentially threatening. These strategies are based on predicted outcomes and calculated outcomes that can be prepared for.[446] Both

[442] Ibid.
[443] Miller, "Consumption as Control: Historical Relationships between Regulated and Unsanctioned Practices of Consumption in Public Squares."
[444] Dong-Wook Sohn, "Residential Crimes and Neighbourhood Built Environment: Assessing the Effectiveness of Crime Prevention through Environmental Design (Cpted)," *Cities* 52 (2016).And Coaffee, *Terrorism, Risk and the Global City: Towards Urban Resilience*. P6.
[445] "Rings of Steel, Rings of Concrete and Rings of Confidence: Designing out Terrorism in Central London Pre and Post September 11th."PP201-211.
[446] Weizman, *The Least of All Possible Evils: Humanitarian Violence from Arendt to Gaza*.

the control measures and strategies to prepare for and respond to threats require hierarchies of power to implement and maintain.

8.8.2 Gathering Spaces

The sites are all, in essence, open gathering spaces. However, they each have sub-areas designed for crowds to gather (Figures 8.15 to 8.17). At Federation Square this is 'The Square' in front of the big screen, at Trafalgar Square it is the body of the space north of Nelson's Columns, and at Hashemite Plaza it is the open space in front of the Roman Theatre. And the small amphitheatre seating in front of the big screen. Gathering spaces create volume of occupation, which is an attractive condition for terror threats. At the same time, they facilitate passive surveillance which is a controlling security measure. These spaces expose the public to itself.[447] Gathering spaces create an intensity of passive surveillance that does not occur generally within the sites. This intensity of surveillance combines with a public empowered to speak up about potential threats.[448] Passive surveillance then becomes activated. Gathering spaces become zones of active interpersonal surveillance and monitoring.



Figure 8.23: Gathering space in front of the big screen at Federation Square.

[447] *The Roundabout Revolutions*, ed. Nikolaus Hirsch and Markus Miessen (Berlin: Sternberg Press, 2015).
[448] Crime-Stoppers-Victoria-Ltd., "Say Something".



Figure 8.24: Gathering space in front of Nelson's Column at Trafalgar Square.

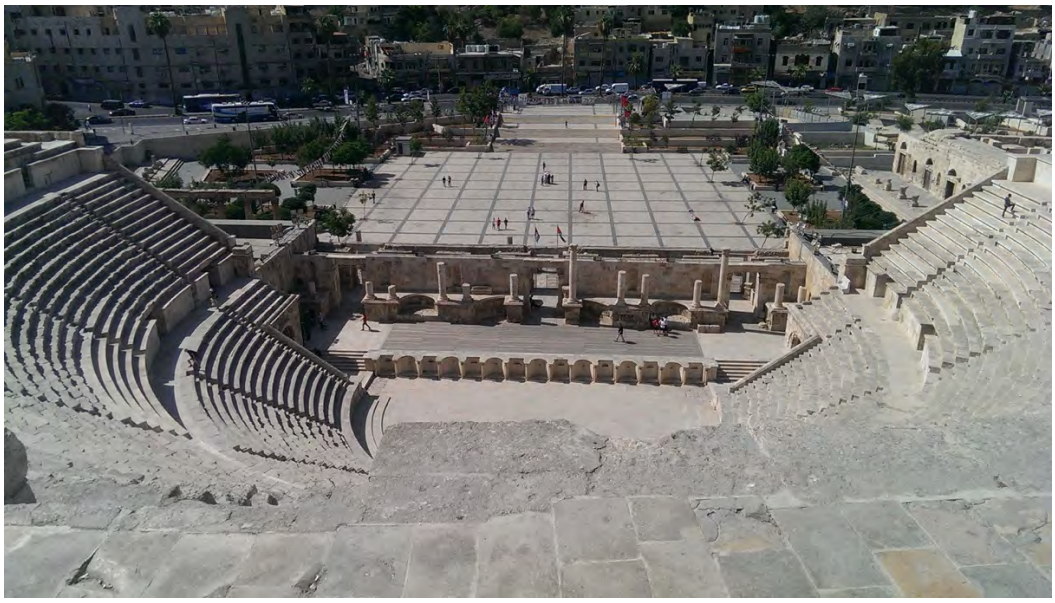


Figure 8.25: Gathering space in front of the Roman Theatre at Hashemite Plaza.

Gathering spaces at each site are located deeper into the place. Crowds formed within these spaces are further controlled by several layers of perimeter controls – both fortification and regulatory. The crowd's physical distance from the site perimeter increases the time between threat emergence and response. At the same time, perimeter layers contain threats in the space when they emerge from within the crowd itself, while designating space at perimeters for response personnel and vehicles. I did not observe an increase in CCTV surveillance at the open gathering spaces compared with other parts of the site. This is somewhat unexpected. There was, however, an observed increase in security staff (police and private) patrolling within the open gathering spaces compared with boundaries or smaller spaces. There is also an increase in active surveillance through police and/or private security.

Gathering spaces frame an area of intensified passive surveillance, and highly visible power structures in the authority of police.[449] The space mediates these operations and structures, focussing and filtering their action onto small, intensified groups.

Openness is a characteristic of vibrant public spaces that support the development of meaning and connection. Dovey describes that fear has the effect of closing down open spaces.[450] Gathering sub-spaces, as well as circulation spaces, facilitate the emergence of crowds; supporting the lived experience of difference and identity in place. Crowd behaviour analysis is an important part of contemporary security strategies.[451] Analysis and prediction of crowd, and individual, behaviour is a key part of preemptive control – it is a predictive strategy. Panoptic security measures observe events unfolding in space, allowing event and behaviour to be monitored and analysed. As a preemptive measure, active surveillance is an attempt to predict how events and behaviours will unfold. It is based on prior knowledge of similar events and behaviours with known outcomes.[452] This is an apparatus of predictions that plays out where groups and spaces are perceived to be at risk and/or contain threat. Nevertheless, the risk of gathered crowds has to be balanced against the value of spaces that enable social life and the public realm. [453]

8.8.3 Circulation

At each case study site, circulation pathways are designed to support pedestrian flow and are not conducive to dwelling. These are not necessarily explicit through physical definition and can be implied. They may not have been designed but may develop organically based on spatial use or through traffic between points outside the site. At Hashemite Plaza there are very clear pathways through the eastern portion of the site, east of the Odeon. These are defined in several ways: by the spaces between garden beds, by the change in pavement colour/material, and the shade structures that snake through the site forming a sheltered path. Suggested circulation pathways produce predictable movement behaviour. At Federation Square, the north-west corner becomes very busy during peak hours with workers moving between public transport at the west, and the central business district to the north.

Circulation spaces and paths direct and funnel crowd movement. Defined paths can direct the flow of crowd dispersal, defining a manageable area and location of movement, while ensuring there is

[449] Dovey, *Framing Places: Mediating Power in Built Form*. Abstract.
[450] *Becoming Places: Urbanism/Architecture/Identity/Power*. P x-xi.
[451] Hidefumi Nishiyama, "Crowd Surveillance: The (in)Securitization of the Urban Body," *Security Dialogue* 49, no. 3 (2018). And, Elias Canetti, *Crowds and Power* (London: Gollancz, 1962).
[452] Lawson, *The Language of Space*. PP71-72.
[453] Teerds, "Public Realm, Public Space: An Architectural Reading of *the Human Condition*."

adequate flow of the crowd to prevent bottle necks and dangerous crushes. There is no access to Trafalgar Square for most of its east and west side boundaries. Crowds must be dispersed to the north terrace and then east or west once out of the Square, or to the south where there are five dispersal directions. Providing adequate egress opportunities and being able to predict how and where people will move out of the space are important considerations for spatial security. The same knowledge, however, could be used by potential attackers. For example, secondary attacks in adjacent streets on those who escaped an initial attack within the space. Despite this potential risk, each of the sites have both clear and implied paths through and out of the site.

Fortress measures impact circulation at each site. Barriers, fences and gates define where flows of movement can and cannot go. This relates to perimeters, as discussed above, and is evident throughout the sites. Because fortress measures create perimeters, they force flows of people into routes around them, they interrupt the free and unstructured flow of people through open space. The same effect occurs when barriers are temporarily applied for programmed events or short term security imperatives.

8.9 Discussion

The comparative analysis undertaken in this chapter focused on the controlling security measures, isolated from the subjective context of site. Analysis of the operation of each security measure in turn reveals the extent of dialogue and overlap between them. Some of these overlaps are intuitive, such as the connection between regulations and active surveillance by police or security. Other overlaps were not anticipated prior to the fieldwork. Controlling security measures create a field of operations, or a system, across the site. A system approach minimises vulnerabilities as a balance of measures emerges, where they act in support of each other and the overall security imperatives for the site. The system as a whole operates as a conceptual overlay across each site, as a management layer that is not immediately perceived by users on the ground. However, some individual measures have an impact on the experience of the space. For example, barriers and fences create physical boundaries that affect the way that people perceive and use the site. This is an impact on the lived experience of place. Michael Sorkin describes the rearrangement of physical space, justified by counterterrorism and security, as a profoundly coercive form of political violence.[454] Each of the case study sites have been physically shaped to some degree by, and for, controlling security measures. Some effects are minor but they all gradually accumulate within the place. The everyday use of public open space, including dwelling in or moving through it, are impacted by security measures that define how and

[454] Sorkin, *Indefensible Space: The Architecture of the National Insecurity State*.

where people can sit, walk, enter/exit. Control measures restrict what bodies can do in the space. Some measures do this with force (such as impermeable perimeters) and some measures employ softer, more coercive forms of power. While these measures ostensibly prevent or pre-empt risk by excluding potentially threatening behaviours, they also restrict normal uses of the site. There is a balance between security and adverse effects on people's ability to use places as part of an open public realm.

9. Synthesis

The primary aim of this research was to examine, and better understand, the spatial effects of controlling security measures in places of mass gathering. The focus has been on measures that respond to contemporary terrorism fears and global theories of pre-emption. A multiple case-study comparison approach was used to test if impacts are generalisable across varied contexts. The study has revealed the types and amount of controlling security measures that are in use at each site; the distribution of those measures through the sites; and the way that they function. Security measures were observed to function across time scales from response (to events that happened in the past), prevention (of events in the present from occurring or worsening), and pre-emption (of possible future events that have yet to emerge). The effect on the sites is that they take on a visual appearance of enclosure and paranoia. In understanding security measures and their impacts, this research project has engaged with narratives, events, cases, maps, and identities that slip, are unfixed and evolving. The narratives relate to the meaning of the place and a dialogue with user(s) that allows a mutual becoming and intertwining of identity and meaning. At the same time, the case study sites are increasingly closed and fixed, with layers of control.

Controlling security measures at each site become invisible, or at least concealed, over time. This can be deliberate, in the case of fortress measures that perform other functions such as planters or seats that are also barriers. But it more often relates to the gradual invisibility of the everyday elements of public space that become so familiar as be unnoticed. We simply forget that they are there. This relates to what Dovey refers to as the 'forgotten-ness' of public space as a "neutral context for everyday life".[455] There is a process by which new defensive features gradually become normalised and forgotten about while additional layers of security are applied. Societies become accustomed to the strictures of fortification and regulation, and complacent in the eye of panoptic surveillance. This complacency both allows and requires additional layers to be installed. There is an apparent contradiction here, as security measures are forgotten but at the same time create a sense of oppressive enclosure. But note, that in order to maintain the visual appearance of control, each of the sites has increased the amount of security over time. Increases in fortification, surveillance and regulation are evident from historical research into each of the sites.

The observations made in this thesis are applicable to other types of public spaces to varying degrees. Public squares were chosen for this study as a type of PMG with a fixed form, high occupation, private management potential, varied programme and fluctuating identity. These properties are not exclusive

[455] Dovey, *Becoming Places: Urbanism/Architecture/Identity/Power*. P7.

to public squares, but the specific combination of these characteristics is not readily observed in other public spaces such as streets, shopping malls, train stations, stadia and the like. Controlling security measures are applied to other categories of PMGs in similar ways. Active and passive surveillance, for example, are characteristics of almost all public, and many private, spaces of all sizes and purposes. The impacts on behaviour and experience of surveillance measures observed in this study will similarly apply to shopping centres, sports arenas and train station platforms. Of course, there will be some site-specific variations, but the basic mediation of power and control is applied in the same way. The impacts of fortress measures on behaviour should be observable in other types of space. Fortification is a simple and easily applied tool of control that physically prevents access, egress or movement generally. It is a fairly crude method that will operate in a consistent manner. Regulatory procedures, however, have diverse outcomes that are specific to the place. This is particularly true of site branding as each place has its own identity and function, impacting people's interaction. Observations of this type of control are particular to each site and are not universally applicable. Nevertheless, it always results authority / power becoming embedded within the physical space and its identity as perceived by users. This condition may be generally observed in places with strong identities and social meanings – such as sports arenas tied to particular teams, or public buildings with specific functions or important histories. However, the outcomes remain particular to each specific place and each user.

A secondary aim of this study was to explore the utility of novel mapping techniques to record data and as a tool to generate new understanding. Diagrammatic maps, in isometric projection, were used as a base onto which controlling security measures were overlaid in various forms. Map analysis included close readings of sub-spaces within each site, and a 'heat map' approach that revealed concentrations of control. The analysis was supported by a discussion of the activities and lived experiences that were observed during field work. The maps on their own are inadequate to fully describe and explain the way control manifests, how power relations are mediated by the space, or the impacts this has on people's behaviour and spatial experience. Spatial observations and personal experience during site visits were critical to understand the complexity of relations and interpretations that make up the tapestry of public space. As Kahn and Hinkel have demonstrated, sites are not discrete and empty – particularly public spaces. Rather, they are constituted by a rich complexity of systems, users, desires and infrastructure forming a field of operations. Complex spatial tapestries are readily demonstrated when mapped onto the site diagrams established in this study. The maps achieve their best utility when used to represent the combination of physical elements and supporting layers of behaviour, use and experience. This study has achieved the aim of exploring a new mapping technique to generate new understanding. At the same time, this study has revealed the potential of expanding this technique to other research queries outside the scope of this work.

An important narrative that is critical to this research is the contemporary altering of the expected time scale of place. Control has, for the past 20 years or so, developed a more abstract interest in the future. All design of space is inventing the future[456], but the move towards a doctrine of preemptive control and action is a radical shift towards outmanoeuvring the future. In this sense, not only does design create the future, but the future creates design. The structure, form and furniture of spaces is now designed in response to an imagined, potential future. We are controlled against threats that may or may not be either immanent or realistic. The space we live in today is a creation of an imagined future place characterised by existential threat. One effect created by preemptive controlling security is that it renders people in the space as both threat and victim, and the space becomes a heterotopia.[457]

In undertaking this research, I have formed the opinion that the most insidious form of spatial control is, perhaps unexpectedly, site branding. It appears innocuous and is a soft form of control. However, it demonstrates a form of power relations that is particularly relevant in this contemporary era of preemption.[458] Branding indicates preferred behaviours in line with the specific meaning of the place. It is a control measure that is absorbed by users of the space and controls behaviour under the guise of being voluntary.[459] Branding attempts to fix identity to place and, as Kahn has demonstrated, sites are parts of wider systems.[460] Their borders are based on concepts of ownership and parcelling of land into discrete, but somewhat arbitrary chunks. Any meanings that are affixed to one place will influence adjacent places. Similarly, places are in dialogue with the people who use, and shared meanings develop across the wider city and population. However, a fixed identity (or brand) identity means that place is constrained against evolving in dialogue with inhabitants. Authority at each site is embedded in the spatial structure and becomes internalised in its users.

Some generalisations can be made across the three places, but I am not convinced that I have found a spatial logic, or series of patterns, that define controlling security measures in PMGs. There are similarities and differences across the places. They are all entirely covered by regulations and surveillance, and they all have semi-permeable perimeters. These similarities demonstrate generalisable relationships between PMGs and the presence of controlling security measures. They do not demonstrate a logic of how those measures are applied and their relationships to each other or the flows of everyday life in space. Ultimately, however, public space is always in flux. Its meaning

[456] Lawson, *The Language of Space*.
[457] Foucault, "Of Other Spaces, Heterotopias." And Dehaene and De Cauter, *Heterotopia and the City: Public Space in a Postcivil Society*.
[458] Massumi, *Ontopower: War, Powers, and the State of Perception*.
[459] Dovey, *Framing Places: Mediating Power in Built Form*.
[460] Kahn, "Overlooking: A Look at How We Look at Site."

and identity are continuously challenged, critiqued, added to, altered etc by use and society. Attempts to fix meaning/identity/brand are bound to eventually fail. In this sense, the hypothesis, established at Chapter 1, that *there are generalisable spatial effects of security measures across varied case study sites*, has not been proven. Even if a generalisable spatial logic could be identified I am not convinced that this would be useful to this project, nor would it be beneficial to spatial practice / theory, or the development of safer places. I do not see this outcome as a failure of the study necessarily. It has resolved the query within the established framework / limitations, while providing novel analytical approaches that may be applied to other sites in a more extensive study.

The understanding of spatial impacts resulting from controlling security measures in PMGs opens the discussion to additional questions about urban space and public safety. An important question is whether urban spaces can ever be totally safe. My view is that no urban space can be totally secured or risk free. The evidence of this research project supports that conclusion, demonstrating time and again the increasing application of control within space in efforts to secure them. New threats and dangers emerge in spite of, and arguably at times because of, preemptive measures. Preemption is prediction that imagines possible outcomes, but human perception is based on knowledge of what has come before.[461] Beyond the question of whether cities can be made truly safe, we must question if that is a desired outcome. While this study examines the effects of control, the next question is *what value does control provide?*

There are opportunities for further work that builds on this thesis by applying the approach to other sites, and by exploring related queries that were outside the scope of this study. This is particularly relevant to the innovative mapping technique developed in this study. The same representational and analytical approach may be applied to other types of public space at various scales. Different information may be mapped onto these diagrams to generate other forms of new knowledge. The maps are relevant to fields of enquiry within urban and architectural studies that are unrelated to security concerns. Additional research into the continued development of the three case study sites would also be beneficial. This would provide a clearer understanding of how local and global events shape security imperatives, and how control measures accrete over time in spite of relevant threats. Observing how they continue to change and morph in response to global and local security priorities would reveal whether similar developments occur synchronously across each place. While I have not found or defined a spatial logic of controlling security measures in PMGs, the similar effects across the places indicates that there this line of questioning is not without merit or potential.

[461] Lawson, *The Language of Space*.

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