Diagramming Urban Fragments: Collage City and the ‘Vest-pocket’ in the Case Study of Canberra

Written as part of the reaction to Modernist planning in the late 1970s, Collage City by Colin Rowe and Fred Koetter proposes an urban design theory which applies collage as a method from art, shifting the focus from the scale of the totality down to the ‘fragments’ of the city. As design theory, Collage City focuses on the relationships between different elements in space through space and time, and it is through this multi-dimensional approach to the understanding of the city and its fragments that Collage City theory has the potential to generate different approach. This paper starts by outlining the aspects of Collage City theory to generate the framework for the analysis of the ‘vest-pocket’ fragments and proposes the use of diagram as the main tool to examine the relationships between various scales, alongside a diachronic study of change and persistence of the urban fragment. Canberra’s early civic precinct will be utilised as a case study, mapping its context over time and the relationships of urban fragments to the city. The paper concludes that the diagram complements the reading of the city as palimpsest within its unintentional interpretation and the level of abstraction which contributes to the spatio-temporal collage.

Keywords: Analysis, Collage City, design, urban fragments.

Introduction

Most of the urban theories that were developed in the second half of the 20th century discarded utopian planning as one of the major reasons for neglecting the human scale and urbanity of the city. Written as part of the reaction to Modernist planning, Collage City emerged as a design theory that advocated for the adoption of utopia as part of an urban design approach, albeit through the small-scale intervention of the ‘vest-pocket’ utopia.\(^1\) The ‘vest-pocket’ fragment is essentially a miniature utopia, sitting between the scale of the city and the fine-grain, human scale. The traditional Utopia was dismissed due to its totalising nature, however, recent discussions around the fragmented nature of the urban fabric, as well as the complex nature of cities, have brought back into focus questions around the need for holistic framework for understanding and planning cities.\(^2\) Therefore, in this paper we build on the potential that Collage City theory offers, instead of completely dismissing the utopian approach to the city, it reinterprets Utopia through the fragmentary ‘vest-pocket’ scale as a design approach for the application of utopian theory to

---

\(^1\)D. G. Shane, *Recombinant Urbanism: Conceptual Modeling in Architecture, Urban Design and City Theory* (Chichester, England: Wiley & Sons Ltd, 2005), 129.

the city. Although not fully explored after the initial publication by Rowe and Koetter, in this research we argue that the ‘vest pocket’ aspect of the city would provide a new light for the analysis of utopian cities.

Collage City applies collage as method from art to develop a design theory which focuses on the relationships between different urban elements through space and time. The ‘vest-pocket’ approach of Collage City design theory creates an in-between scale that connects the city and the fine-grain of the streets and human dimension, and it is through this multi-dimensional aspect that Collage City theory has the potential to generate a new approach. Thus, this paper’s overarching question is how can we apply Collage City theory as a framework to analyse utopian planned cities to capture both the ideals of the plan and human scale fragmentation? This broad question is approached through experimentation with the figure ground mapping and diagramming process that focuses on two types of relationships: between the scales of the plan and the human dimension (exploring relationships synchronously) and over time (diachronic diagramming). Canberra as a twentieth century planned city striving towards a utopian ideal has been chosen as a case study to test the application of the ‘vest-pocket’ approach to the analysis of the city.

The paper starts by introducing Collage City theory and the ‘vest-pocket’ fragment, followed by an overview of the diagram and abstraction in architectural theory. The case study of the Civic Centre in Canberra is outlined, and results from the case study and mapping and diagramming process discussed.

**Collage City Theory**

Published in the late 1970s by Colin Rowe and Fred Koetter, Collage City was part of the Postmodern response to Modernist planning and its perceived disavowal of history and tradition. Unlike other nostalgic approaches during this period, the focus of the book is the proposal of an urban design theory which applies collage as a method from art, moving away from the totalitarian approach down to the ‘fragments’ of the city. While planning theory after the 1950s did not consider cities as a holistic design, Collage City challenges dominant approaches of 1970s urban design with its treatment of urban fragments. The text synthesises several arguments, suggesting that a collage technique may be the only way to overcome the problems created by the determinism of Modernist planning and its utopian impulses, as a way of extracting objects from their context, to superimpose them in different spaces.

---


to create new references and meanings.\(^5\) Collage City theory is developed using three techniques of (I) City as Museum metaphor, the role of the (II) bricoleur and the (III) vest-pocket scale, which all approach the city and its history from varying perspectives and scales. The focus of this paper is the technique of the ‘vest-pocket’ scale which allows utopia and the city to be treated in ‘fragments’ rather than ‘in toto’.\(^6\)

**The ‘Vest-pocket’ Fragment**

While the utopian fragments exhibit this totalitarian design on the individual scale, the contextual relationships created through their juxtaposition and placement within the collage demands a ‘geometrically multiplying double reading of each element’, thus negating the static nature of the composition as a whole.\(^7\) Collage city theory was written as a design theory, therefore when applied in this way, these fragment utopias will create friction in their relationships as they collage and collide within the urban composition. The essence of collage is in a process of abstraction, enacted through the distancing the fragment from its context, and through the relationships created within, and between, fragments in the new collaged composition. The strength of this technique lies in this agglomeration of relationships and reference created through the collaging of the vest-pocket fragments. Through this collaging of meaning, it creates dynamism, revealing its potential as a tool for those planning in the rapidly changing and developing cities of the contemporary era.\(^8\) As the ‘fragmentation of urban space’ becomes a more dominant characteristic within the city, it offers opportunities for these fragments to be identified and the vest-pocket scale to be applied, while leaving the city as an open-ended work that can further change and develop.\(^9\)

In this research we interpret the vest-pocket fragments as intermediary scale between that of the city and the fine grain of the streets and human scale. The vest-pocket fragment is the Collage City equivalent to the urban “field” described by Shane, fragments that are perceived through the patterns that emerge within city plans through different stages of development.\(^10\) It is bounded by the morphology of the area as well as the character, but not limited to the singular block or district, creating the perceptual level between the city.

\(^{6}\) Rowe and Koetter, *Collage City*, 1978, 149.
\(^{10}\) Shane, *Recombinant Urbanism*, 2005, 129.
and the street. The collaging of all the elements within the composition creates relationships across the various scales of the urban fabric. Thus, the vest-pocket fragment technique creates a multi-scalar approach to the analysis of the city, looking at the relationships between the scales, rather than at the elements, to help understand the complexity of the city. To explore this method to read the city, we propose to focus on “unrefined” tensions in the existing relationships. This paper suggests that those relationships can be found in between the scales, especially between the utopian vision for the whole city and realised vision(s) for the individual fragments. By examining the relationships within and between these ‘vest-pockets’, the tensions can be uncovered. In addition, the paper argues that we can find those relationships by analysing the places and their development over time, as the palimpsest of the city.

Methodology and Methods

Methods: Testing

The analysis is separated into two stages. The first stage is based on the reverse collaging method. While in the collage design method the process of taking elements from different contexts and moving them into new relational assemblages is considered to design a new reality, here in the analysis stage, we recognise the fragment and trace it back to the original stage. Thus, the first stage applies recognition and definition of urban fragments that we can recognise in the city and their description. These fragments can be of various scales from the scale of the building all the way to the whole city. The scale and boundary of each vest pocket is defined based on their virtual qualities.

The second stage focuses on the development of the precinct over time, applying the figure ground mapping and selection of the individual vest-pocket fragments in the city. It is comprised of the diagramming and recognition of the relationships between the selected vest-pockets fragments over time following the level of persistence over time.

Collage city applies the figure ground plan as a strategy for reconciling the divergent approaches of the pedestrian-oriented urbanism of premodern cities with the Modernist approach of the object-building.11 Acknowledging that there are limitations to the figure ground, we have chosen this representation as it offers understanding between built and unbuilt spaces in the city, particularly for the diachronic study. The analysis is based on Conzen’s approach in which streets and street system, plots and plot systems and building footprint are essential in understanding morphogenesis of urban landscape.12 Based on

---

11 M. Hebbert, “Figure-ground: History and Practice of a Planning Technique,” Town Planning Review 87, no. 6 (2016), 714.
Conzen’s analysis of Alnwick a method has been developed for the analysis of Canberra that focuses on the building footprint, streets and street system, and public spaces.\textsuperscript{13} The selection of plots has been omitted as they have not played important role in the development of the city’s urban core. Furthermore, the emphasis of the public spaces has been added as the most important aspect of the civic nature of the selected case study area.

While the figure ground is an extremely useful tool in investigating the changing morphology of the city, the simplification of the city required for a two-dimensional representation “results in a flattened city, where difference and complexity (beyond the formal) are rendered invisible” by the graphic dominance of black on white.\textsuperscript{14} As such, in addition to the figure ground, this analysis explores the diagramming method to further understand urban relationships and interfaces. The façade and interior courtyard spaces of certain buildings have been selected for further study, as these are the elements which interface with other built forms to create connections within the urban fabric. Plan and section diagrams have been used to create a deeper and more multi-dimensional analysis. The use of plan drawings through both methods is important for the analysis as it refers back to the original plan by the Griffins and reveals the changes over time to the urban fabric.

The etymology of the word diagram reveals important parts of its definition. Deriving from the Greek words \textit{dia}, referring to the relationship between the two and across, and \textit{gramma}, defining something that is drawn, figure and outline.\textsuperscript{15} Thus, diagrams represent a method of focusing on the relational characteristics of an object or a thing, rather than focusing on the thing itself. Furthermore, often diagrams are not representations of the physical characteristics of the thing or its form. For Eisenman diagrams are the “…representation of something in that it is not a thing itself.”\textsuperscript{16} Often the definitions of diagrams are referring to what they are not. They should be differentiated from images and signs. Furthermore, in assemblage theory they have “neither substance nor form, neither content nor expression.”\textsuperscript{17} Deleuze and Guattari refer to them as a “real yet to come, a new type of reality” as they define not just the current relationships between elements but also potential relationships.\textsuperscript{18}

The important aspect of the diagram is that it emphasizes elements or characteristics that are not necessarily directly visible, but elements that are

\textsuperscript{13}Ibid.
\textsuperscript{14}B.D. Wortham-Galvin, “The Woof and the Warp of Architecture: The Figure-Ground in Urban Design,” \textit{Footprint 07}, (2010), 66.
\textsuperscript{16}P. Eisenman, \textit{Diagram Diaries} (London: Thames and Hudson, 1999), 27.
\textsuperscript{17}G. Deleuze and F. Guattari, \textit{A Thousand Plateaus Capitalism and Schizophrenia}. (trans.) B. Massumi (Minneapolis: University of Minnesota Press, 1987), 14.
\textsuperscript{18}Ibid, 142.
implied or virtual. This does not mean that diagrams are less real, however, they represent the understanding of what is hidden behind the immediate visible world, and thus they could be defined as virtual. Diagrams are often defined as both real and ideal, reductive and generative, objective and subjective.

Deleuze refers to diagram as the map, cartography and spatio-temporal multiplicities. Multiplicity refers to the potential relationships, not only those that are part of the past but also those that are yet to come. Furthermore, diagrams are not simple illustrations of the objects, but representations of morphological processes which define that entity. This aspect implies that they are not necessarily a static representation of the essentialist characteristics of an entity or its static relationships but actually depict processes and relationships as dynamic understanding of an entity. Furthermore, there is no single diagram that can exhaust the exploration of the reality. This aspect of the diagram offers a potential in application of the diagram as spatio-temporal exploration of the collage.

Diagramming method applied in this study is aiming to connect the figure ground and plan exploration as introduced I the collage city with the sectional and façade qualities of the elements. It uses the process of abstraction to explore the hidden relationships between selected elements.

Case Study of Canberra: The Civic Centre

Chosen as the winning entry of the Federal Capital Design Competition in 1912, Canberra was planned as the National Capital by the husband-and-wife architectural team Walter Burley Griffin and Marion Mahoney Griffin. The Griffin Plan is centred on a geometrical framework that embeds the city into the existing contours of the landscape. The National Triangle is one of the primary organising elements that distinguishes the Canberra plan, alongside the Land Axis and the Water Axis. The Land Axis originates at Mount Ainslie, crosses through Kurrajong Hill, connecting to Mount Bimberi in the south. Crossing perpendicular to this is the Water Axis, starting at Black Mountain and following the approximate line of the Molonglo River. The National Triangle is anchored on the two axes – the northernmost apex at City Hill, the

southern at Kurrajong Hill and the eastern at Russell Hill. Each of these apexes had an intended role: located around City Hill was the Civic Centre, Kurrajong Hill housed the symbolic centre of the city and the nation, and Russell Hill was simply defined as the Market Centre (Reid 2002) (Figure 1). The connectedness of this geometric framework, in conjunction with surrounding radial star patterns, emphasises the integrated intentions for the plan, and the connection at different scales. At the scale of the city, the National Triangle and the axes connect the whole plan to the site, following the natural features of the terrain, the hills and valley. Moving down a level, the pattern of the radial creates coherent fragments, yet maintains connection to the city scale through the primary avenues. And at the human scale, the density and connectivity of the urban fabric continues to foster these relationships through the different scales of the city.

![Figure 1. The 1912 Griffin Plan with overlay of geometric framework](image)

While the geometry of the National Triangle and the Land and Water Axes have remained the backbone of the Canberra plan, it has undergone numerous changes since the beginning of construction in 1913, all of which have affected the order and legibility of the different scales and relationships within the city. Thus, Canberra is a good example for analysis of vest-pocket scale, with the palimpsest of various approaches to reinterpretation of the original plan and new ideas.

The Civic Centre in Canberra has been chosen for the case study as an example to test the approach to analysis, leading to a more detailed exploration of the relationships within the urban fragment. A sampling strategy was
applied to the selection of the embedded case study unit, focusing on the identification of an area within the Canberra plan which can deepen the understanding of relationships across various scales through time. Three principles have informed the selection of the Civic Centre embedded unit through the sampling strategy. Firstly, this unit has been designed to create connections across multiple scales within the plan, the hexagonal geometry creating a coherent urban fragment within the wider plan, while maintaining the connection to the broader geometry of the Canberra design. Secondly, this is one of the most established areas within Canberra, creating opportunity to explore the changes and persistencies through time. Thirdly, the design of the Civic Centre in its current form continues to respond to the layout and intentions of the original Canberra plan.

The Civic Centre is located within central Canberra, to the north of Lake Burley Griffin (Figure 2). Its hexagonal geometry radiates around City Hill, which forms the northernmost apex of the National Triangle, connecting it to the geometric framework that is the backbone of the Canberra plan. The intention for the Civic Centre site to be the civic and metropolitan heart of the city has remained consistent from the 1912 competition plan designed by the Griffins, with visions for a vibrant and connected urban fabric. While the earliest developments in the city centre began in the 1920s with the construction of the Sydney and Melbourne Buildings, it was not until the 1960s that Civic began to take its current shape. The 1959-1964 Planning Report published by the National Capital Development Commission (NCDC) outlined the first stage of significant developments, with the aim of creating civic, commercial and public spaces for the growing city. This civic and public focused development continued through to the 1980s with the Civic Centre Policy Plan published by the NCDC. Since then, it has seen a slight decline in development with predominantly office buildings constructed and commercial trade moving to the Canberra Centre mall. However, recent years have seen increased focus on urban renewal within Civic, with an emphasis on pedestrian connections and bringing residential architecture to the edges of the city to create a lively and interconnected civic realm.

---

25 Reid, Canberra Following Griffin, 2002.
Figure 2. Location of Civic Centre and National Triangle

Results

Vest-pocket Fragment 1: Sydney and Melbourne Buildings

The analysis of the Civic Centre has identified the Sydney and Melbourne buildings as one of the most important vest-pocket fragments. These are two of the oldest structures in Canberra and remain significant fragments within the Civic Centre due to their role in defining the character and scale of the city’s retail area in the early developments (Figure 3). Construction on both began in 1926 with the Sydney Building completed in 1927 for the official opening of the Civic Centre in December 1927. The completion of the Melbourne Building was delayed until 1946 due to the events of the Great Depression and Second World War.²⁸

Positioned along Northbourne Avenue, adjacent to the City Hill apex, they act as gateway buildings to the National Triangle, offering a sense of arrival to the urban core. This placement creates direct links to the geometric framework of the city. The architectural concept is attributed to J.S. Sulman, primarily the continuous ground level colonnade that generates perimeter block. The buildings as they appear today were designed by J.H. Kirkpatrick in the office of the Federal Capital Commission from Sulman’s concepts.

While the external form is generally unchanged since construction, their role as markers of the civic identity of Canberra has greatly changed. They continue as landmarks within the city, but their commercial role diminished from the 1950s onwards with the development of suburban shopping centres and the opening of the Monaro Mall in the city in the 1960s. They remain integral fragments from the era as they create and hold relationships across the

---


fine-grain and city scales, in contrast to the original development of large footprint blocks which was focused on creating the large-scale geometry of the ‘urban uses framework’. However, with lack of maintenance and the move of pedestrian retail foot traffic to the mall the types of tenancies are not in keeping with the civic premise of the original intention and their positioning as gateways to the city. This has changed in last couple of years with the introduction of the light rail along Northbourne Avenue, and the revitalisation of empty shopfronts which are now bustling with life, introducing new coffee places, restaurants, and event venues. With these changes the Civic Centre is developing more of an urban character while still maintaining its role as the civic heart of the city.

The colonnaded façade of the Sydney and Melbourne Buildings has a very strong resemblance to Brunelleschi’s Renaissance design of the Ospedale degli Innocenti in Florence (Figure 4). This influence is significant due to the historical associations made by transposing this classical motif to the context of the new civic developments. The continuous arcade was intended to encourage perambulation and mimic famous European shopping streets while negating the local climate conditions. The arcade form is a critical precedent, creating familiarity within a newly developing city, while also generating the street and pedestrian scale interface within the larger context. This virtual quality of the vest-pocket is recognised as the main element that defines its character and boundaries.

Figure 4. The formal precedent of the Sydney and Melbourne buildings in the colonnade of the Ospedale degli Innocenti

31 National Capital Authority, The Griffin Legacy: Canberra, the Nation’s Capital in the 21st Century (Canberra, NCA, 2004), 54.
Vest-pocket Fragment 2: Civic Hexagon

The analysis of the Civic Centre has also identified the central hexagon as another vest-pocket fragment. It has remained a constant element within the plan, throughout numerous changes over the years. The avenues radiating from the core on City Hill symbolically connect Civic to the various districts within the plan. The most significant change has been in the shift from what was an architectural urban core in the 1913 Griffin Plan, to a predominantly landscape character in subsequent plans.

This strongly echoes the principles and layout of the Garden City by Ebenzer Howard, where the radial nature becomes basic principle of the organisation, and the polycentric idea of the city (Figure 5). The central place in both ideas is taken by the nature and centralised radial geometry unfolds commercial and residential zones.

Figure 5. The geometric precedent of the Civic hexagon in the centralised radial geometry of the Garden City. Central garden and commercial streets highlighted

Diachronic Analysis of Civic Hexagon and Sydney and Melbourne Buildings

The analysis of the development of Canberra is focused on the figure ground analysis. The changes to the Canberra plan at four major points in its development have been selected for this analysis (Figure 6). The 1912 Griffin Plan with its highly geometric and connected urban framework is followed by the 1927 plan, and the first phase of construction in the Civic Centre. This is followed by the 1964 map, characterised by the introduction of the parkway road system, another significant phase of civic development. The fourth point in time is 2020, the city as it currently stands. In this series of diagrams, the persistence of the hexagonal geometry of the Civic Centre becomes evident.

The changes in the connectivity to the City Hill core become evident, as does the size of the streets and blocks (Figure 7). In the 1912 plan, the six radiating streets all connect to the most internal hexagonal core, however this connectivity unravels in subsequent iterations of the plan. In addition, from initial hexagon geometry, that has been preserved at the Civic centre, the plan has been changed to the circular geometry, particularly at the southern part of the city. The permeability of the hexagon has also changed over the time, planned as permeable, it has decreased its accessibility in the actual realisation of the plan (Figure 7).

The initial prominence of the Sydney and Melbourne buildings through the first half of the twentieth century is then overshadowed by the large footprint development of the mall on the eastern side of civic, built as separate blocks and then connected between the years 2000 and 2010 (Figure 8). The prominence of self-contained and freestanding forms is visible, connected to each other by the pattern of streets. However, by separating the different urban elements (building, streets and public spaces) and re-layering the information, the spaces and places which have persisted through the city’s history become evident. Of note is the space held between the Sydney and Melbourne buildings, straddling Northbourne Avenue. While the mirroring of the two facades across the avenue creates a coherent spatial connection and urban relationship, the Northbourne Plaza median strip is used foremost as pedestrian walkway rather than public space (Figure 9).
Figure 6. The Civic vest-pocket in context through time

Figure 7. Civic hexagon vest-pocket detail through time
Figure 8. The Sydney and Melbourne buildings in context – civic urban development by decade
**Figure 9.** The layering of elements over time – buildings, streets, public spaces – making visible the persistencies within the urban fabric

**Conclusion**

The diagramming study reveals two scales of the vest-pocket fragment within the Civic Centre of Canberra: the scale of the buildings (Sydney and Melbourne buildings) and the internal hexagon of the Civic Centre. The Sydney and Melbourne buildings, embody the human dimension through their design, and act as gateways to the urban core through their placement along Northbourne Avenue. This positioning, adjacent to the Civic Hexagon, also connects them to the geometry of the National Triangle and the wider plan. The persistence of these two vest-pocket fragments reveals an interesting juxtaposition of relationships. One fragment refers to Italian cities and plazas, connecting to the fine grain and human scale nature of the city, and European urban tradition while the other ideal, the Garden City connects urbanity to its opposite, nature. On the one hand, this relationship could be considered as a “friction” between the two extremes. One relationship that focuses on the urbanity and compactness of traditional European medieval cities and the other that integrates nature into planning as part of the reaction to the early twentieth century overcrowding. On the other hand, this relationship between the two extremes generates interesting tension on which this operates, aiming to be the city of the human scale but also the city that embraces the open sky and nature. This tension exists in the differing focus of the scales within the two ideals, and in how the human dimension is reconciled to the landscape scale of the plan. The vest-pocket is a useful tool to examine this tension through the diagramming of these multi-dimensional relationships within the urban fabric. While understanding of the “friction” becomes visible through this analytical approach, visualisation of this condition becomes challenging. Fragmentation and searching the origins of each fragment has led to a different reading of the city and potential understanding of the unfinished identity of the Civic area.
The diachronic analysis has shown that both vest-pockets are the most persistent elements in the urban fabric. The layering of different elements within the urban fabric through space and time, revealing the relationships between the plan, its interpretation, and the current and future meaning in the palimpsest of the city. It also emphasises those virtual qualities that complement the reading of the city and its urban spaces as a spatio-temporal collage. Furthermore, the persistence of these elements shows the potential role that the vest-pocket fragment play in development of the city. The process of tracing back to the original fragments of the collage has revealed important “friction” in the development of the city and thus provided us with different reading of the Canberra, generating a new approach to analysing and understanding urban relationships through scale and time that can be further useful for the development of the city.

References


Hebert M (2016) Figure-ground: History and Practice of a Planning Technique. Town Planning Review 87(6): 705-728.


