

# The Cultural Capital of Urban Morphology

by Francesco Mancini & Tanja Glusac  
Curtin University

**Keywords:** urban morphology, urban transformations, typological process, spontaneous consciousness, cultural capital.

**Abstract:** Perth, Western Australia has been steadily changing its urban fabric and appearance, from a colonial outpost to a post-colonial centre embracing modernity. Its brief history means that the grounding in prior historical periods may appear missing. In this paper we argue that the young history is not necessarily precluding the existence of layered values, but that these are underestimated in relation to Perth's urban development. Consequently, a perpetual ideological scenario of a virtual tabula rasa is created where everything is considered fleeting and easily substitutable. This paradigm, supported by global economic forces, has to date been preferred over urban transformations based on the typological process .

While economic factors undeniably impact urban transformations and development , this paper suggests that other factors must be considered for a sustainable urban growth, such as cultural capital discussed by Bourdieu. The authors argue that the understanding and application of urban morphological and typological principles in urban design can be used to sustain the permanence of cultural capital as an essential and tangible component of the city.

## 1. Introduction

The process of making contemporary cities has been exclusively determined by technological disruptions brought on by the industrial revolution of the 19<sup>th</sup> century. The paradigm governing the production, usage and inhabitation of pre-industrial cities shifted greatly from a culture focused on making, inhabiting and belonging to a place to new modes of production causing detachment in inhabitation and building design<sup>1</sup>. This paradigmatic shift further facilitated the loss of quality and resilience of contemporary cities in that values, principles and processes which determined the urban form of pre-industrial cities were not transferred and embedded into post-industrial colonial and post-colonial cities.

The lack of knowledge application and transfer of values, principles and processes present in the urban form of pre-industrial cities constitutes a knowledge gap internal to the built environment disciplines. To illustrate its significance, this paper compares the disruptive change in terms of form, scale and continuity observed in the current form of post-industrial colonial and

1. Rossi, 1982; Caniggia and Maffei, 2017; Benevolo, 1980.

post-colonial city fabric with the typological process of transformation, which has determined for centuries the morphology of the historic centre of pre-industrial cities.

A notable shift in the morphological outcome and appearance of the city fabric can be easily demonstrated by comparing the plot ratio, form and technology of a pre-industrial city with that of a modern city as done by Rowe and Koetter. They compare figure-ground diagrams of Le Corbusier's<sup>2</sup> project for Saint Dié with that of the medieval city of Parma. The comparison shows how the footprint of an ancient medieval city built form occupies about 80% of the land, while the super block of Corb's 20<sup>th</sup> century modern city proposal features the footprint that is less than 20% of the land use<sup>3</sup>. This subversion of land use in favour of large, often linear transport infrastructure, has led to an increased urban dispersion, resulting in immense and sparse suburbs with a low footprint rate and low rise single and two storeys residential developments. Cities' central business districts (CBD) constitute notable exceptions featuring soaring modernist skyscrapers, monuments to financial and industrial capital. Both of these morphologies can be found in the city of Perth and its surroundings.

Though over the years the failures of the modernist urban planning, based on the simplistic and divisive formula – live-move-work-play – became clearly acknowledged, the postmodernist approach adopted in the early 1980s in areas of North America equally failed. This approach has been largely unsuccessful in solving the limitations of the suburban model, as it was never alternative to it. Likewise, it has proven to be simply not practicable in the dense grid based city centres due to a large majority of post-modern high-rise buildings being treated as classical formalistic reproductions instead of acknowledging that “the form of the city is dependent on the interactions of its local inhabitants through the processes of various exchanges”<sup>4</sup>. While the post-modern experiment tried to reproduce the form of the times and eras long gone, in this paper we argue that we have to re-embrace the notion of cultural capital of typological process of transformation embedded in the built environment in order to generate a continuum which empowers urban experience, inhabitation and sense of belonging.

## 2. Methodology

Caniggia and Maffei (2017) argue that *history* can be conceived as a system of individuation relating to objects in time and space<sup>5</sup>, without which it is almost impossible to have knowledge of the world. Consequently, formation and transformation processes of objects and places have to be historicised to be fully understood. To address how the typological process of transformation can benefit the development and the production of contemporary cities, a brief critical analysis of the typological process theory developed by Caniggia and Maffei (2017) is proposed to test the urban value transferability as a method of analysis of contemporary cities established during colonial times such as Perth, Western Australia. They have identified a number of primary elements of the typological process. In this paper we refer to building type, phase and spontaneous and critical consciousness with the intent to focus on two critical elements, continuity/discon-

2. It was Modernist architects and urbanists like Le Corbusier who clearly identified and accepted the disruption brought on by extensive transportation infrastructure, for in it they saw the way for the cities to progress and meet the demands of the new technological and future oriented world. Complete with the organization along the lines of homogenous grids post-industrial, colonial and post-colonial cities' centres became surrounded not by city walls, as was the case of medieval European settlements for instance, but by wide highway strips of congested traffic.

3. Rowe and Koetter 1978, pp. 62-63.

4. Sanders, 2008, 4 reflecting on MacCormac, 1996.

5. Caniggia and Maffei, 2017.

tinuity and resilient change, which can make this methodological approach still relevant when used in contemporary urban contexts to understand and drive their current transformation.

The *building type* results from a classification via identification of similar physical or functional characteristics, which follows our spatial experience of various buildings. The courtyard house, for instance, can be classified by virtue of its peculiar spatial aspects, which make it different from the cottage. However the building type also embeds the concept of a house as an aspiration shared by a particular community at a certain moment in time in a particular place. Despite the fact that this concept might be influenced by experience, it stays as an intangible ideal, which precedes the experience that is the material construction of building types operated by that particular community. It is important to note that according to the latter interpretation, the notion of type can serve the purpose of innovation through change, or as already noted by Q. de Quincy (2000), type is in fact not coincident with the notion of a fixed model.

The *typological process* must be framed within the historic trajectory of a place or a region in time. According to Caniggia and Maffei's definition of the typological process, change in building happens essentially in two ways, by substitution and transformation<sup>6</sup>. Substitution implies complete demolition of any pre-existing structure (artificial or natural) and replacement with a building structure, which is almost always different from the previous one. The concept of substitution includes what is generally understood as an act of 'original foundation', which in fact does not exist. Foundation is always an act of superimposition, either on a natural ecosystem or a different type of human settling, or both.

Transformation is a slower process of change and less abrupt, which often establishes a continuous link with the urban context. It belongs to phases of reflection and reconnection with a pre-existing urban building, fabric or structure. It is assumed to be the most evident example of continuity in city development. It can take form as an addition or any other work that considers the existing structure as a core. Transformations can, at a larger scale, involve change of function of different building types from previous ones.

With the typological process being fundamentally related to the notion of time, it is important to frame moments in time of continuity and discontinuity. Assuming the latter is corresponding to a crisis (change) in the modes of production of the city, the former can be defined as a *phase* – a period of time in which change consolidates and becomes clearer to the community by extensive materialization of forms driven by such a change. Caniggia and Maffei (2017) further discuss two types of agencies, spontaneous and critical consciousness.

The *spontaneous consciousness*, which is the collective authorship of many artefacts of the ancient city<sup>7</sup>, has produced, transformed and layered urban artefacts that have incorporated a particular culture of making and inhabiting the city at a certain moment in time and over time. It is this consciousness of the collective authorship of the inhabitants which has instilled the old pre-industrial cities with qualities of liveability, history and presence sought after in modern day cities. The spontaneous consciousness, though embodying the collective cultural value of a place, has become lost in its original form and mode of production. The components of it have, nevertheless, been recovered through various forms of participation, norms and legislations, such as through heritage, National Trust, design frameworks, Burra Charter and similar that are largely focused on a formal product than the process, producing picturesque dissimulation<sup>8</sup> along the way.

6. *Ibid.*

7. Caniggia and Maffei, 2017; Rossi, 1982; Quaroni, 1981.

8. Baudrillard, 1983.

The *critical consciousness*, on the other hand, can be seen as the very act of designing. According to Caniggia and Maffei (2017), critical consciousness has overcome the presence of the spontaneous consciousness, in that the top-down planning, design and execution have produced a particular set of values, which are complementary only to the ones produced by spontaneous consciousness. We are not arguing for a complete rejection of this consciousness, but suggest that if critical consciousness is the only one considered during the city planning and designing process, then the quality of space brought on by the spontaneous consciousness is lost. The critical consciousness, with its emphasis on design value, embeds cultural value but only to an extent in that it cannot replicate the historic stratification and integration of both spontaneous and planned interventions. It too produces picturesque outcomes that are highly stylised as evident in the works of the 19th century romantic movement, Post-modernity, and more recently in those of the New Urbanism, which produced inferior appropriations of form and not the process<sup>9</sup>.

Our investigation focuses on integrating spontaneous and critical consciousness of the traditional typological process in the contemporary urban process of transformation. Through this we aim to shift the focus back to the typological process by re-establishing a logical connection between the pre-industrial and contemporary process of city making.

Further to this, we suggest that the continuum provided by the typological process over time constitutes the material form of cultural capital of cities. For this, we refer to Pierre Bourdieu (1997), who identifies cultural capital as one of the three forms of capital<sup>10</sup>. According to Bourdieu<sup>11</sup> “Cultural capital can exist in three forms: in the *embodied* state, i.e., in the form of long-lasting dispositions of the mind and body; in the *objectified* state, in the form of cultural goods ... and in the *institutionalised* state”. Though Bourdieu is referring to cultural capital in relation to individuals, the link between the cultural capital and the built form can, nevertheless, be observed on all three levels. In this paper, we are specifically referring to the embodied and objectified states of the cultural capital.

The embodied cultural capital has traditionally been linked to the education and standing of a dominant social class, whereby the early exposure to high culture and all it entails provided its holders with distinctive tastes, habits and *habitus* that perpetuate their social position. The Grand Tours of the 18th and 19th centuries serve as a case in point, linking familiarity with and appreciation of the architecture of the old pre-industrial cities such as Rome, Vienna and Athens to knowledge acquisition<sup>12</sup> and acceptance into the high society of the time. Through this, the actual urban form of such cities became objectified, turning their ‘carriers’ into collectors and preservers of architectural and historic wealth<sup>13</sup>.

If we, therefore, assume that the cultural capital is expressed through the visual, perceptual and spatial narrative of the built form and the spontaneous interaction with its inhabitants,

9. Post-modernist theorists and architects such as Colin Rowe used urban design techniques to recreate the appearance of old forms, but without considering how these came into being. Other architects, like Rob and Leon Krier, sought to reproduce the vernacular in order to recover urban and civic values embedded in the ‘good form’. Christopher Alexander (1987) proposed to recreate urban wholeness by reproducing the process of urban accumulation over time via a structured design approach. Rossi (1966) too has tried to extract scientific principles to symbolise the presence of urban collective memory in his projects. All of these approaches prioritised critical over spontaneous consciousness.

10. The other two forms of capital, according to Bourdieu, are financial and social.

11. Bourdieu (1997, p. 47).

12. Knowledge acquisition is of particular interest to architectural profession and architects, as it affords them the opportunity to reinforce or influence the development of cultural capital and values associated with it through their buildings.

13. Similar trend can be observed in more recent times with commissioning of consumerist architecture that has been proven to be lacking in cultural value associated with urban form.

which can be summed up in the city being a stage for authentic experience, we can begin addressing this objective using case study and comparative analysis methodology.

Case study analysis provides evidence of the materialization of culture in cities that are undergoing a re-thinking process of planning and execution. This re-think is urgent due to the extreme polarisation between the dispersal of the suburbia and congestion of the city. Both of these urban developments show in different form a strong physical discontinuity, which currently prevents the building process of production of the city from being comprehensive and perceived valuable as a whole.

According to Anne Vernez Moudon (1997), the urban morphology is founded on Form, Land and Time – the three basic elements common to all cities. Following on this, it is possible to describe the form of the ancient, medieval, renaissance, industrial and post-industrial city using these three elements, which in fact are also essential to determine the yield of any part of the built environment in terms of its urban value. In order to identify where to recover a particular component of the cultural value of the city, which has vanished following omission of the spontaneous consciousness from the process of urban production, we are resorting to a comparable unit of measure – the cultural capital – to add value into the future urban developments and transformations.

### 3. Analysis: Transferability of urban values

Continuity and discontinuity of the typological process have alternated over time and have progressively been absorbed in the tradition of urban development. At the turn of the 20<sup>th</sup> century the momentum disproportionately shifted towards the discontinuity in the city making process in Europe and North America due to a number of factors such as introduction of cars, rise of urbanism, infrastructure<sup>14</sup> and historical circumstances, which have been discussed by many authors including Rowe and Koetter (1978), Tafuri (1987; 1976) and others who studied the moments of crises and their impact on the urban environment.

The greater presence of discontinuity of the typological process caused a twofold effect on planning and executing the urban form. Firstly, an approach to planning changed, diverging from the cultural capital of the traditional city as a result of the latter's inability to cope with the disruption caused by the industrial revolution that favoured new forms of capital<sup>15</sup>. Secondly, the large scale 'void' elements were introduced into the city planning schemes in the form of extensive green areas, urban railways, road infrastructures etc., which commodified distance in favour of urban yield at the expense of the urban wholeness achieved by traditional building types. This focus on void structure accelerated the shift from transformation to substitution of urban forms after 1950s.

In colonial and postcolonial settings the above-described shift has been in place since the 16<sup>th</sup> century, long before the typological densification brought by the industrial revolution<sup>16</sup>. Leonardo Benevolo (1980), for instance, has demonstrated that many Portuguese, Dutch, English, Spanish and French colonial settings from the 16<sup>th</sup> century were not planned to be filled with buildings in a short time frame. On the contrary, the planning was meant to accommodate

14. Richard Sennett (2005) refers to such urban planning as Fordist City.

15. This new form of capital became defined by different forms in the city, such as high-rise and celebration of skyscraper typology.

16. The grid system implemented since the 16th century builds on that of Greeks and Romans, who used it as a way of imposing a legible form of power over territory.



space for anticipated future growth making space for a very different building process than the synchronic<sup>17</sup> one, typical of medieval European settings. This had an effect on the sizing of public areas, streets, parks and squares, which were purposefully designated and designed in excess “sometimes pointlessly grandiose, whereas the building were squat and unimpressive”<sup>18</sup> to accommodate for the current need, but also for the future urban growth. This was enabled by the predominance of infrastructural land planning, which rapidly took over the building stratification in the form of bi-dimensional grid schemes that prevailed over incremental addition and transformation of tri-dimensional building organisms typical of medieval towns<sup>19</sup>. Therefore, even if in the beginning the majority of new buildings were just one storey high, the abundance of capacity embedded in the designated urban void space set up a different process of substitution in favour of high rise buildings, which happened as soon as the appropriate advancement in building technology occurred<sup>20</sup>.

The concept of unlimited growth is embedded in the grid itself. It displays colony’s aspirations to become a city, to grow and prosper, as it offers unlimited space to the imagination and the will of colonisers to expand both physically and ideologically, as evident in the below discussed example of the city of Perth.

The history of Perth, from its foundation to the mid-1960s is not that dissimilar. Founded in 1829 as part of the Swan River Colony, the site that is to become the City of Perth and home to 300 settlers was located between the port of Fremantle to the south and the small settlement of Guildford to the east<sup>21</sup>. Notwithstanding the economic boom caused by the gold rush in 1890s, the Perth city grid scheme (Figure 1a) was oversized for the times when compared to the planning of the near centres of Fremantle and Guildford. This scheme was very aspirational, favouring prospects of a wealthy future more than its present condition. Its position along the Swan River enabled a seemingly endless expansion, which occurred at the expense of the indigenous population and land and, in the city centre during the 1950s and 1960s, at the peak of Modernity, also at the expense of the colonial memory.

During the 1950s and 1960s (Figure 1b), Perth’s development succumbed to the capital pressure of increasing the urban yield, which resulted in many historic buildings being demolished to make space for new transport infrastructure and modern ‘glass curtain’ high-rise buildings. The resulting loss of urban compactness on the outskirts and cultural density in the city centre ended up spreading the distance between the inhabitants and the modes of production in the city and of the city. This phenomenon ultimately diminished the collective contribution to the tangible and intangible value of the city itself. Perth’s identity and, consequently, its deep sense of belonging to the urban territory became reduced to a mere infrastructure in service of work, transport and leisure time, and partially symbolised by stand-alone iconic buildings<sup>22</sup> and self-contained precincts, which replaced the majority of the old city fabric from the 1960s onwards (Figure 1c).

17. Simultaneous shaping of buildings and streets as part of the city development.

18. Benevolo (1980, 632).

19. The preference for *tabula rasa* approach, fleeting and substitutable values, and no or limited urban transformation, is a recurring phenomenon in the western urban history which distinguishes forms, cultures and values of many colonial and post-colonial settings from those of the ‘original settings’. The grid system, or ‘mathematicization’ of land, as described by Carol J. Burns (1991, 150) still supports the *tabula rasa* mentality.

20. Rem Koolhaas provocatively suggests that the real author of the Skyscraper is Elisha Otis, who invented the elevator in 1887 (Koolhaas, 1994, p. 82)

21. Stephenson (1975, p. 2)

22. Notable examples of iconic buildings are Perth Convention and Entertainment Centre, RAC Arena, State Library, the extension of the train station in the City Link area, none of which achieved sound urban cohesiveness.

The loss of identity and history, and with it of cultural capital, is clearly identifiable in St Georges Terrace precinct<sup>23</sup>, perhaps more so than in any other part of Perth. The precinct of St Georges Terrace has been in place since 1829, when the initial grid was set to define the city of Perth. The perimeter of the plot defined by St Georges Terrace, Pier Street, Howick Street (today Hay Street) and Barrack Street remain to this day. A series of historic maps show various phases of the precinct land subdivision and development, with first one occurring in 1845 (Figure 2a), dividing the plot into three smaller ones. The three plots were originally occupied by St Georges Church, completed in 1848, the Barracks building on the south east corner and the Barracks offices and jail on the south west.

The further lot subdivision visible on the map from 1864 (Figure 2b) supported the construction of new buildings, which progressively – though sparsely – filled the area, the most notable being the English cottage type Deanery on the south west corner and the Mechanics Institute on the north east side. A picturesque Guard House was built on the north west side of the precinct. The construction of the Town Hall in 1867 marked the beginning of the precinct's typological process of addition and substitution. Between 1870<sup>24</sup> and 1978, various changes done to the precinct led to a progressive loss of its initial character of a military post which transformed into a centre of religious and political power of the colony and, later, the city.

1870 also marked the introduction of the colony's representative Government in Perth calling for the construction of the Government Building, an open courtyard complex featuring many additions and alterations, which took 22 years to complete (1874 – 1896). Albeit the complex was conceived and designed in Georgian Style, it shows evidence of many typological and stylistic alterations and additions that occurred during its long period of construction, the most notable of which is the addition of the 4<sup>th</sup> level in French style between 1889 and 1897<sup>25</sup>. A significant section of the complex was completed during the second phase of construction to accommodate the Land and Survey Department on the east side. In 1874 the construction of the Central Government Building, today's Treasury building, took place in substitution of the Barracks.

Coinciding with the construction of the Government Office is the new Anglican Cathedral of St George, a neo-gothic building commissioned in 1875 by the then Bishop of Perth. St Georges Cathedral, completed in 1888 and still existing today, is not an extension of the former church as one might expect. On the opposite, it was built in substitution of the former and much smaller St Georges Church demolished in 1889. The new Cathedral was placed in a different position and orientation to the old church, as shown on the 1924 map (Figure 2c), and was completed with the addition of a tower in 1902, one year after the proclamation of the Australian Commonwealth<sup>26</sup>.

A further phase of consolidation occurred between 1874 and 1924. The 1924 map shows many historic buildings, most of which were demolished in the 1960s when the city of Perth undertook the first process of modernization of the precinct and the wider CBD. This disruptive change led to the demolition of the elegant St Georges Chambers and the Sunday School buildings, erected in 1867 and 1871 respectively, and the Crystal Hotel and the Government offices on the East side, once objects of the colony and the precinct's pride<sup>27</sup>.

23. St George Terrace is where, in 1829, the first colonizers planted a tree in a ceremony to take possession of land inhabited by the Wadjuk indigenous people.

24. The completion of the Town Hall in 1870 marks the beginning of an intense building process in Perth.

25. Offen (2016).

26. The Town Planning Departments of the State Government and Perth City Council (1978)

27. *Ibid.*



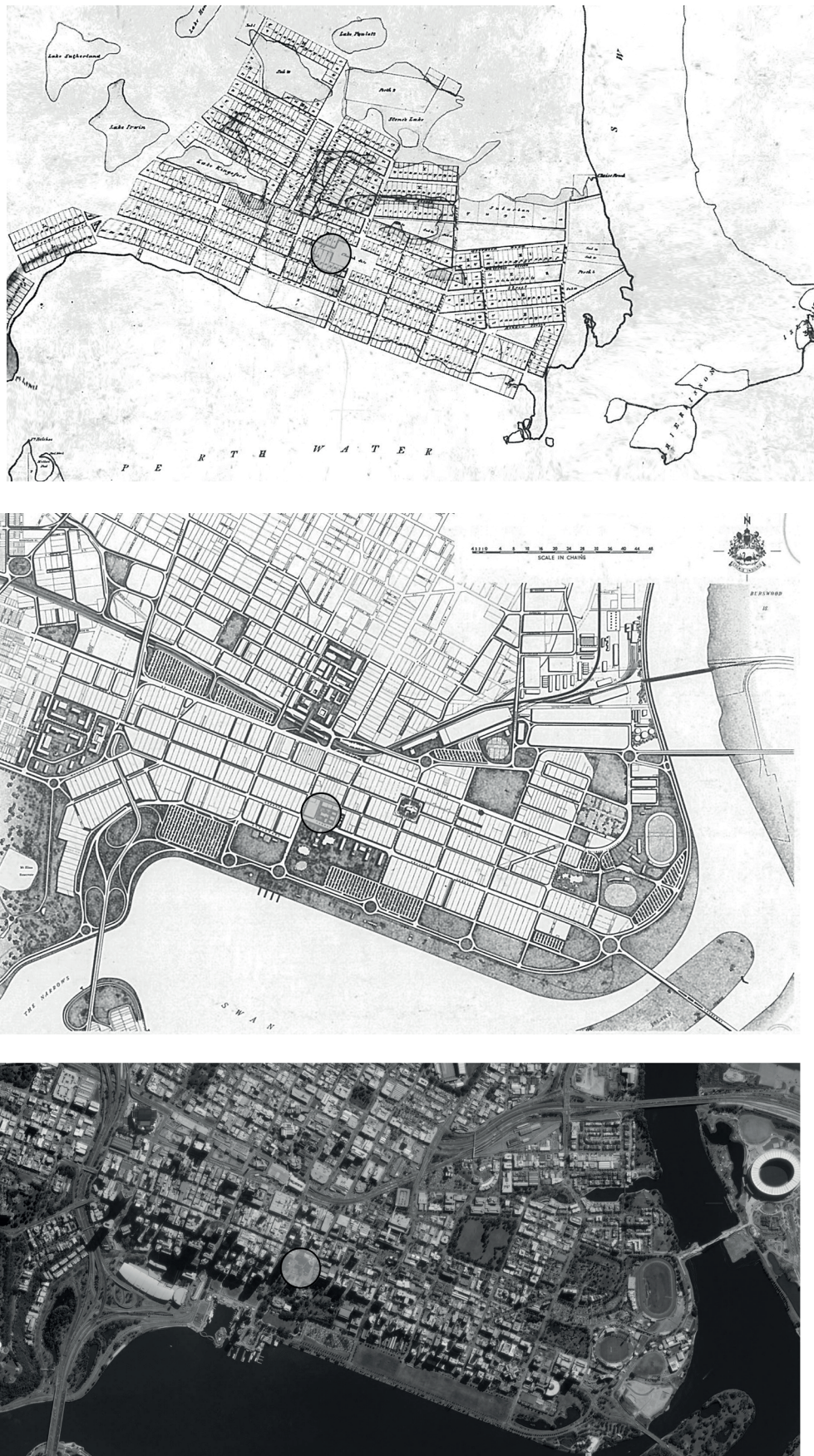


Figure 1. The circle identifies the location of St Georges' Terrace precinct. 1a. Plan of Perth 1838 (Stephenson 1975, 2). 1b. Plan of Perth CBD (Stephenson 1975, 9) 1c. Aerial view of Perth CBD 2019 (Bing Maps).



1978 marked a new phase of urban transformation in Perth that was informed by an increasingly different understanding of heritage value, and cultural value in a broader sense. This new phase effectively triggered and supported a comprehensive discourse about the urban transformation of the St Georges Terrace precinct. In fact in the same year, the Town Planning Department of the State Government and Perth City Council prepared an urban design study informed by the historic analysis which “indicated a continuity of the civic importance of this precinct since the days of the settlement...” and recommended “that an appropriate civic use be considered for incorporation into any development which should also add to the level of activity and interest in the precinct”<sup>28</sup>.

The proposed design options demonstrate that responding to the urban design study from 1978 (Figure 2d) was not an easy task. For once, Perth and its inhabitants have been living and operating in a climate of colonial and post-colonial occupation favouring a tabula rasa approach for more than 150 years. Consequently, despite many efforts to consider the civic centre holistically, various urban additions and substitutions failed in integrating the previous transformations with new interventions until recently. Commissioned in 2011 (fig 2e) to redesign the Cathedral section of St Georges Terrace precinct, Kerry Hill Architects resorted to a different cultural approach by applying an innovative design framework based on morphological integration and expression of civic values as a counterpart of a financially and socially sustainable renovation.

The proposed architectural solution integrates the existing Treasury building, Cathedral and Town Hall with the new Perth City Library, Anglican Diocese of Perth and the 32 floors office tower of the Department of Justice placed within the courtyard of the Treasury building (Figure 3). The balance on the ground floor of the city (Figure 4) is obtained via a sensible organization of the circulation and connection between the new object-types and the surrounding heritage buildings. Through this series of interventions, the architects and the City of Perth have reactivated this section of the city making it a vibrant and desirable day and night destination.

#### 4. Conclusion

This brief description of historic typological transformations of the precinct, its usage, permanence and erasures, shows that the typological transformations address and explain only partially complex phenomena of an urban formation, the constitution of its identity and its changes over time. To complete the picture we need to include typological substitutions as fundamental parts within a more integrated view of the morphological process of urban formation. In order to fully comprehend such an ever-changing process, the historic analysis helps to identify clear phases of the building process where typological transformations, substitutions or integrations prevail or coexist, defining each phase by means of its recognizable spatial and temporal continuity that resonate with Christopher Alexander’s (1987) concept of urban ‘wholeness’<sup>29</sup>. Above all, we must avoid the mistake of considering one of these strategies as ‘the only one’ to be applied in order to maintain or develop cultural capital of the city. A mere substitution of buildings with contemporary monuments, isolated by any urban discourse, does not serve the purpose of conceiving and producing the city as the spatio-temporal continuum, which we need to frame and set our

28. Ibid (p. 36).

29. Alexander’s proposal, however, attempts to replicate the condition of growth completely through the design process, rather than allowing time to be one of the protagonists of change.

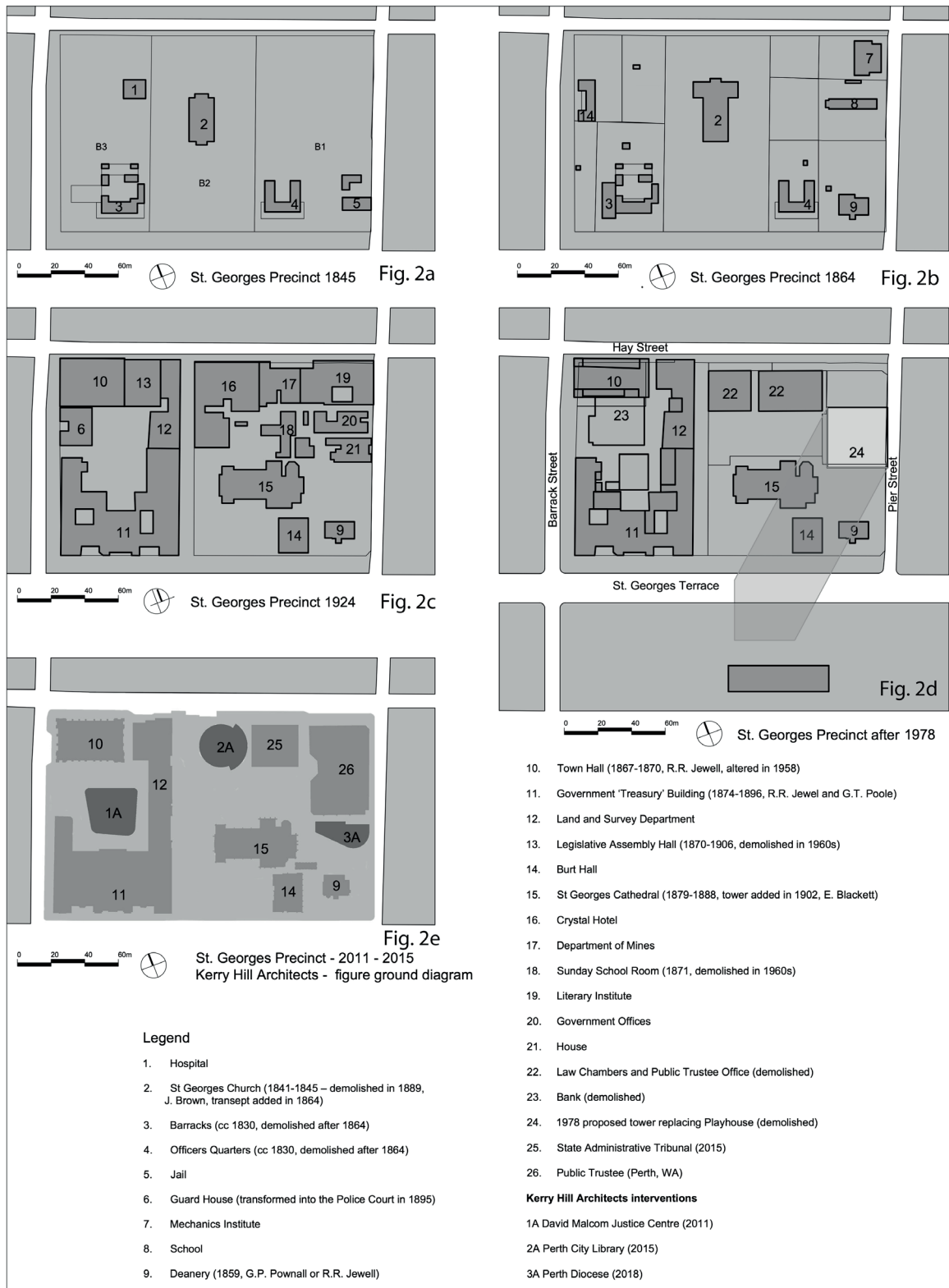


Figure 2. The St Georges Terrace precinct over the past 170 years. Diagrams 2a – 2d redrawn and edited by F. Mancini from *The Town Planning Departments of the State Government and Perth City Council* (1978, 47, 49, 54, 106). Diagram 2e courtesy of Kerry Hill Architects.



Figure 3. St Georges Terrace precinct showing the Cathedral, Perth City library and the south east corner of the Treasury Building. (Mancini F. 2019).

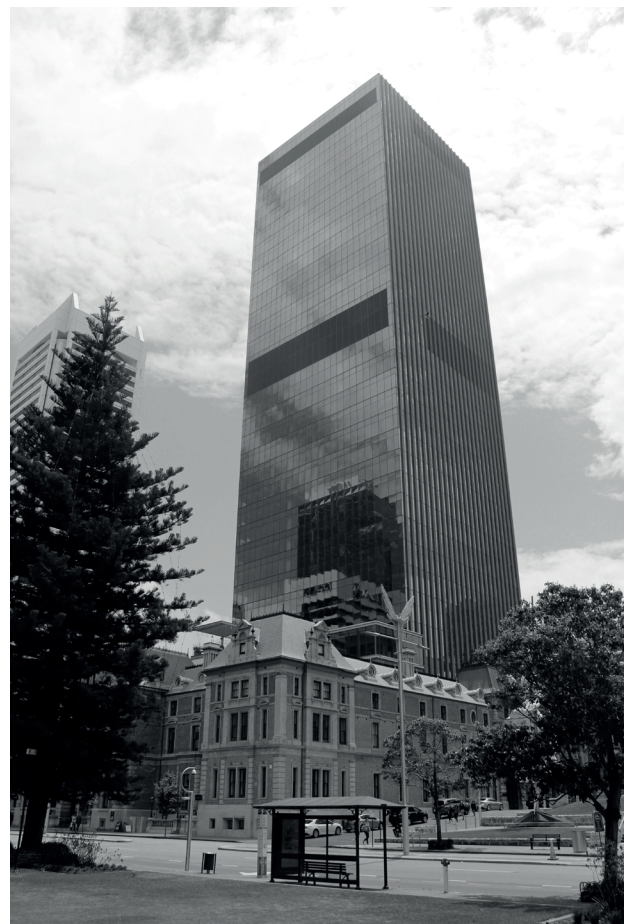


Figure 4. St Georges Terrace precinct showing the 32 storey David Malcom Justice Centre within the courtyard of the Treasury Building. (Mancini F. 2019).



social life now and in the future. Equally, the history of urban development teaches us that moments of crisis strongly disrupt the continuity of the typological process celebrated by Maffei and Caniggia. Such moments have always been brought back to a continuum by typological hybridization or invention of new type forms, sometimes in strong discontinuity with the past. It is for this reason that the building produced by the spontaneous consciousness cannot be replicated by imitative post-modernist products. On the opposite, the culture they generate might serve purpose for new forms of participation in generating innovative morphological responses to the design and the transformation of the post-colonial cities and the modern cities in general.

## References

- Alexander C. (1987), *A new theory of urban design*, Oxford University Press, New York.
- Aymonino C. (1984), *Origini e sviluppo della città moderna*, Marsilio, Venezia.
- Benevolo L. (1980), *The history of the city*, Scholar Press, London.
- Baudrillard J. (1983), *Simulations*, Semiotext(e), New York.
- Bourdieu P. (1997), *The forms of capital*, in Halsey A.H. et al. (eds.) *Education: culture economy and society*, Oxford University Press, Oxford, pp. 46-58.
- Burns C.J. (1991), *On site: architectural preoccupations*, in Khan A., *Drawing/building/text: essays in architectural theory*, Princeton Architectural Press, New York, pp. 146-167.
- Caniggia G., Maffei G.L. (2017), *Interpreting basic buildings*, Altralinea Edizioni, Firenze.
- de Quincy Q. (2000), *Type in Encyclopédie méthodique*, vol. 3, trans. Samir Younes, reprinted in *The historical dictionary of architecture of Quatremère de Quincy*, Papadakis Publisher, London.
- Koolhaas R. (1994), *Delirious New York: a retroactive manifesto for Manhattan*, The Monacelli Press, New York.
- Moudon A.V. (1997), *Urban morphology as an emerging interdisciplinary field*, in *Urban Morphology* 1, pp. 3-10.
- Offen R. (2016), *Perth then and now*, Pavilion Books, London.
- The Town Planning Departments of the State Government and Perth City Council (1978), *Cathedral Precinct: Urban design study*, Part 1- Recommendations and Part 2 – Research (Perth).
- Quaroni L. (1981), *La città fisica*, Laterza, Roma/Bari.
- Rossi A. (1982), *The architecture of the city*, MIT Press, Cambridge, MA.
- Rowe C., Koetter F. (1978), *Collage City*, MIT Press, Cambridge, MA.
- Sanders P. (2008) *Presenting the past: the impact of urban morphology in shaping the form of the city*, in ACSP-AESOP 4th Joint Congress, *Bridging the divide: celebrating the city*, July 6-11 2008, University of Illinois, Chicago.
- Sennett R. (2005), *Capitalism and the city: globalization, flexibility and indifference*, in Kazepov Y. (Ed.), *Cities of Europe. Changing contexts, local arrangements, and the challenge to urban cohesion*, Blackwell Publishing, Oxford, England, pp. 109-122.
- Stephenson G. (1975), *The design of central Perth; some problems and possible solutions*, UWA Press, Nedlands, WA.
- Tafuri M. (1987), *The Sphere and the labyrinth: Avant-Gardes and architecture from Piranesi to the 1970s*, MIT Press, Cambridge, MA.
- Tafuri M. (1976), *Architecture and utopia. Design and capitalist development*, MIT Press, Cambridge, MA.