



STREETWISE DESIGN




A PRACTICAL GUIDE FOR
NEW DEVELOPMENT AND
ADAPTIVE REUSE IN ASIAN
LIVEABLE HERITAGE CITIES

ELIZABETH VINES

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Streetwise Design
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FOREWORDS

Cities around Asia have witnessed rapid development over the past three decades. New construction built in haste or with scant regard for their surroundings has led to many areas of historic and cultural significance being lost or seriously degraded. More recently there is a heightened awareness of the link between liveability, wellbeing, competitiveness and productivity. As people have become more mobile the best talent is choosing where they wish to live, and in turn they are followed by investment and jobs. To build more liveable cities, a key component is that they must have a strong sense of character of place. Historical and cultural elements of the city need to be recognised, saved and enhanced.

This includes taking note of the built heritage, and making planning and architectural decisions that are sympathetic to the existing form. This does not mean that a city needs to be stuck in the past, with development confined to building designs and technologies from previous eras. Rather the city's history and culture should be viewed as a valuable asset that can be enhanced by contemporary buildings that inspire the future. Cities can and should evolve. By building on the past there can be a continuous narrative for the city, which can help ensure that residents maintain a connection with the place in which they live. Think City is a community-based urban regeneration organisation, a fully owned subsidiary of Khazanah Nasional, the strategic investment fund of the Government of Malaysia. We are working to make Malaysian cities more liveable, and we are committed to preserving their cultural and historic heritage as part of this process. We see Streetwise Design as providing a useful resource for city planners and architects to help them make decisions that can keep the integrity of our cities intact. We hope that the current and next generation of city-makers draw on the information here and apply it to projects that will transform our cities in years to come.



Typical Penang streetscape

Think City has worked with Elizabeth over a number of years when she came to Penang and Kuala Lumpur as an instructor for an urban conservation course we ran in partnership with the Getty Conservation Institute and Badan Warisan. When she approached us to collaborate on this book we saw this as an opportunity to further the urban conservation and liveable cities cause as it contains universal themes that can be applied throughout South East Asia. We would like to thank Elizabeth for her dedication to conservation and heritage planning, and for once again making a valuable contribution to best practice city-making in Asia.

Hamdan Abdul Majeed
EXECUTIVE DIRECTOR
Think City Sdn Bhd

Successful conservation in the urban environment relies on a shared understanding of the basic processes and tools available to assist in this work. In this latest book, *Streetwise Design*, and drawing on her extensive experience working with local governments, Australian architect and heritage practitioner Elizabeth Vines takes the reader through the key ingredients for successful local management, introducing key topics such as mapping and inventories, conservation plans, impact assessment, and so on, linking these processes to the increasingly vital sustainability agenda. Tackling the most pervasive challenges in urban conservation, infill development and adaptive reuse, the book provides a straightforward commentary on how to encourage and assess appropriate new development in the historic urban realm.

The challenges in urban conservation are perhaps the most pertinent in Asian cities, where the pace of change is more acute than almost anywhere else on the planet. Much of the staggering, projected urbanization over the next fifty years will change the face of existing cities and create new urban conglomerates on previously agrarian landscapes. Managing this change to those urban areas identified as being of heritage significance, is a challenge that requires pragmatism, sound policy approaches and a shared understanding of what is important and how the balance between dynamic growth and change, and conservation can effectively coexist. Building on her previous publications *Streetwise* (1996) and *Streetwise Asia* (2005), Elizabeth continues her quest in this publication to do exactly that and provide guidance to all those engaged in the conservation process at the urban scale.

Concluding with a useful checklist, the book is a clear and concise handbook for local government officials, architects, planners and local community activists and others involved in conserving what is special about the historic urban environment by securing its future through appropriate and sustainable change. I am delighted to support this new and much needed addition to the literature on this increasingly important area of practice.

Susan Macdonald
HEAD, BUILDINGS AND SITES
Getty Conservation Institute

Streetwise Design is the latest addition to the *Streetwise* publication series by architect and award-winning conservation practitioner Elizabeth Vines. Complementing her previous publications, this book addresses the importance of designing “polite” infill buildings and sensitively modifying heritage buildings for suitable new uses.

The expertise of the author as a conservation architect is based on her broad practical experience in addressing the challenges of conserving the historic urban environment, both throughout Australia and into Asia. Similar to her two other books on the topic, *Streetwise* and *Streetwise Asia*, a management strategy checklist at the end of the publication provides a useful tool for formulating necessary actions to conserve places that are valued, but may be at risk from a variety of threats.

Not content to argue generally, Elizabeth draws on a broad cross-section of compelling international examples and aptly describes, through clear photographs, the reasons for the success or failure of a project. This moves the book beyond a theoretical discourse to a useful guide for good practice, especially in Asia where there is an increasing recognition for integrating good design and best practice in conservation to achieve a more livable urban environment.

Such importance is placed within the context of livable cities and offers compelling reasons – and examples – for why good design for infill and adaptive reuse matters. As Elizabeth effectively argues, such design reinforces the attributes of heritage places and in so doing helps to maintain the distinct character of a community. Her admonitions broaden out from individual buildings to streetscapes and areas beyond any specific heritage boundaries or controls.

It has been a privilege to support and work with Elizabeth on this important initiative. The book gives stakeholders a concise design framework for successful infill and adaptive reuse solutions in places valued by local communities. Moreover, since the examples offered in this book integrate the principles of heritage conservation with the broader arena of development, their application will provide communities with new opportunities for conservation activities.

Prof. Lynne D. DiStefano (Adjunct Professor) and
Dr Lee Ho Yin (Associate Professor and Head of Division)
Division of Architectural Conservation Programmes (ACP) The University of Hong Kong

AUTHOR'S NOTE

This book arises out of my ongoing interest and passion for the built cultural heritage of cities and towns. My work as a conservation architect has taken me to many and varied places throughout the world, where I have been delighted and inspired to see creative and dynamic cities embrace and celebrate their heritage. I have also been dismayed when special places I previously discovered and come to love, are no longer there – demolished for higher density development, more profitable uses and greater financial returns.

I am saddened when inappropriate design and out-of-context development have ruined once special places. My interest is - what makes a city liveable? – and how does a city's heritage contribute to its liveability? Further how is its heritage recognised and celebrated. This book outlines my belief that retention of cultural identity is an essential component of a vibrant and economically viable city and community. This should then be reflected in the design of new development.

My previous two books on this topic, *Streetwise* (1996) and *Streetwise Asia* (2005) outlined general principles and presented simple pictorial guides to assist communities in formulating achievable heritage strategies. This book continues the *Streetwise Asia* discussion, recognising that Asia is under pressure of development and transformation. *Streetwise Design* focuses on Asian and particularly Malaysian examples, but also aims to provide international examples of success stories which hopefully can inspire

an alternative to development which destroys cultural heritage. It focuses on the issue of new development in heritage townscapes or on individual sites, and the importance of understanding sense of place and context. The World Heritage City of George Town in Penang is a particular focus.

In Europe, the traditional city centres are recognised as important assets with great value, but in Asia, old buildings are frequently torn down and replaced with shiny glass-fronted skyscrapers.

The tradition of compatible new development in historic contexts has been better understood in Europe than in the “new worlds” of Australia and the USA. In Asia, with the explosion of population growth and pressures on colonial cities, the demand for the modern and new is so often at the expense of preserving what little is left of previous architectural expressions. There is an urgent need for efficient public transport systems and bike paths to make a city people friendly and walkable as alternatives to car choked urban environments. The establishment of well landscaped urban environments and community gardens are now doing much in many cities internationally to enhance our enjoyment of where one lives and works.

I hope that this book assists in a small way in equipping those who decide about the future physical shape of our heritage cities, and encourages the retention of unique sense of place, community and local culture.

ACKNOWLEDGEMENTS

Many people have contributed to the preparation of this book.

I am grateful to Think City for embracing the idea of a book focusing on city creativity, infill and adaptive reuse. I also thank Hong Kong University's Architectural Conservation Programme, and Dr Lynne Distefano and Dr Lee Ho Yin, for supporting me as a visiting researcher and teacher. In early 2015, I spent six weeks working with the Yangon Heritage Trust in Myanmar formulating recommendations for a heritage management framework which retains the values of this important city. This experience provided a real stimulus for the need for this book, which is a practical tool to assist with protecting cultural heritage in a city faced with enormous challenges.

From April to June 2016, I was a Getty Scholar in Los Angeles where I had the opportunity to undertake research of design in creative heritage cities. This publication draws a lot on my Getty research with an emphasis on how the heritage context of a city is so critical to its health and vitality.

I thank the many people who have provided inspiration through their projects and general input, including:

Think City's staff including Hamdan Abdul Majeed, Dr Neil Khor, Duncan Cave and those at Think City offices in Penang, Johor Bahru, Butterworth, and Kuala Lumpur.

Getty Conservation Institute staff including Susan Macdonald, Jeff Cody, Anna Duer, Martha Demas, and Reem Baroody.

Laurence and Lin Lee Loh, for always being so welcoming in Penang, so full of good advice, and being inspirational leaders in high quality conservation, adaptive reuse and new development.

Richard Engelhardt, consultant to UNESCO in the Asian Region, for his many years of support and encouragement, and for suggesting the link up with Think City. Richard, David Logan, Lynne DiStefano and Kate McDougall provided extremely helpful feedback on the draft manuscript.

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Rupert Mann and Moe Moe Lwin in of the Yangon Heritage Trust for opening my eyes to all the delights of that city.

My husband, David Grybowski, who has always been a supportive critic, helped in the final edits of the manuscript and provided companionship on the many visits to interesting places along the journey. My two sons, Edward and Philippe contributed greatly to my view of the world and have often brought me "up to the present" with their ideas! I dedicate this book to my father, Robert Vines, who inspired me all his life. When Edward asked his grandfather just before his death in March 2017 what he was most proud of in his life, he responded "being part of the debate". I hope that this book continues the debate over the importance of our cultural heritage and the need for creativity in our cities.

Photographs All photographs are by the author unless noted. The examples shown are to illustrate points I make and are my opinion. Where I believe the outcomes are positive, I have included the locations. I also include examples where I believe that good design was not achieved to provide constructive guidance and debate. In no case do I wish to offend, and in most cases have not included the locations of these examples.

GLOSSARY OF TERMS

The following terms have been used in this publication:

Adaptive Reuse – of a heritage building may continue the existing use, or involve a change of use that ensures an on-going future for the building, where the existing use is no longer viable. It can also involve extending the building, when the current space is not sufficient for the proposed use.

Conservation - defined in The Burra Charter as “All the processes of looking after a place so as to retain its cultural significance”. This includes preservation, protection, maintenance, restoration, reconstruction and adaptation.

Conservation Management Plan (CMP) – a management document which outlines the recommended processes in caring for a heritage item or area. It sets out what is significant in a place and, consequently, what policies are appropriate to enable that significance to be retained for its future use and development.

Heritage Impact Assessment (HIA) – this document assesses the impact of change of a proposed development to a heritage place – both positive impacts and negative impacts – and is used by authorities to assist with determining if the proposal is appropriate or not.

Historic Urban Landscape (HUL) – Recommendation on the Historic Urban Landscape, (2011) framework for city heritage management.

Place – the Burra Charter defines place as a geographically defined area, which may include elements, objects, spaces and views, and may have tangible and intangible dimensions. “Place has a broad scope and includes natural and cultural features. Place can be large or small: for example, a memorial, a tree, an individual building or group of buildings, the location of an historical event, an urban area or town, a cultural landscape, a garden, an industrial plant, a shipwreck, a site with in situ remains, a stone arrangement, a road or travel route, a community meeting place, a site with spiritual or religious connections.”

Heritage Precinct or Conservation Area – this is an area which has been identified as having consistent heritage character, and is interchangeable with historic district, or historic neighbourhood. A heritage conservation area is more than a collection of individual heritage items – it is an area in which historical origins and relationships between the various elements create a sense of place that is important to retain and protect. It includes heritage places which contribute to its character.

Infill development – this refers to new development in a heritage precinct, amongst and between existing heritage buildings or can include an extension to an existing heritage building.

1. INTRODUCTION

Asian cities are undergoing rapid urban renewal and infrastructure development as large numbers flood into urban centres seeking jobs and housing. By 2050, more than two-thirds of the global population will live in cities. Development must respond to these challenges – but should also retain the legacy of the qualities that make a city liveable, including the remaining historic built environment and associated cultural heritage.

In an urbanising world, cities are major social and economic hubs. Liveability rankings and other labels, such as being a creative city, can provide welcome global recognition and marketing tools. Networks are now linking cities together to collaborate and exchange ideas on the wellbeing of urban centres. Agencies, such as UNESCO and the World Bank, are now involved in how cities are functioning, and how the needs of the rapidly expanding populations are being addressed.

In some downtown areas of Asian cities, there is population decline as new development on the fringes seems more appealing and affordable, leaving the city centre dominated by tourist facilities. However, in other cities, the appeal of downtown living increases pressure either for increased density - accommodated by high rise apartment buildings, or gentrification of the existing low rise housing - often in heritage buildings. Every city is different, and needs its own carefully considered strategies and solutions.

In Asia, consistent streetscapes are more likely to survive where World Heritage Listing is achieved, or in locations away from large cities, where the pressure for more intense urbanisation is less. It is the retention of significant low scale streetscapes that can lead to World Heritage recognition. A consequence of this listing is often an increase in property values and associated gentrification, which can bring its own challenges. (World Heritage-listed George Town, Penang (above), and Kuala Kota Bharu, (below) both in Malaysia).



This publication focuses on how to retain special places valued by the community and how to successfully marry the old and the new. It argues that the health of a city depends upon good management and retention of its cultural heritage. Examples are provided where successful new development and revitalisation projects respect traditional context, and where cities celebrate and build upon their unique cultural heritage. It also provides warnings where development irreversibly damages a sense of place. The book

extends beyond the built environment to include the importance of the public realm, where public transportation, walkable environments, urban landscaping, public art, interpretation and strategies for community engagement all make powerful contributions to the liveability of cities. The checklist at the end of the book is to provide a simple management reference tool for those who are charged with the responsibility of ensuring that the development of Asian heritage cities and communities is well managed and maintained.



Large high-rise developments on consolidated land holdings occurs at a completely different and often jarring scale to the existing streetscape. (Johor Bahru, Malaysia)



Yangon, Myanmar, still has many consistent low-rise streetscapes, and is attempting through recent planning revisions to prevent demolition and erosion of the identified special character.

2. WHAT IS A LIVEABLE HERITAGE CITY?

Many cities now recognise the importance of their unique cultural heritage and local communities are becoming more involved in arguing for the protection of a city's character as part of its liveability.

New high-density development often pays little attention to the interface with the public realm - and displaced communities grieve over the loss of their heritage and safe liveable spaces. High rankings for liveability are keenly sought after by cities, and international and national competitiveness demonstrates the importance of this recognition.

Liveable cities are generally those that have a healthy economic base through the provision of local jobs, active street life (including markets and outdoor dining), and vibrant social and artistic expressions. Heritage precincts are valued and protected, community surveillance and domestic rituals provide a sense of comfort, and there is a sense of pride and well-being for those who live and work there. Liveable cities are creative in the way they approach economic development opportunities, recognising that creativity and the arts are integral to the well-being and attraction of a city. Residents and workers feel safe and socially connected. It is no coincidence that liveable cities are generally those which retain their cultural heritage significance and cultural identity, both tangible heritage (built and landscape) and intangible social practices

Liveable cities and neighbourhoods are characterised by key ingredients:

- Environmentally sustainable development initiatives
- Access to affordable and diverse housing options
- Low crime rates and safe public spaces with provision of night lighting and surveillance infrastructure
- Public transport networks, connected walkways and cycling infrastructure that provide efficient access to:
 - Employment
 - Education
 - Local shops
 - Public open space and parks
 - Health and community services
 - Leisure and cultural facilities

Networking between cities is now common, and the *Southeast Asian Creative Cities Network* (SEACCN – established in 2014) includes representatives from George Town (Penang, Malaysia), Bandung (Indonesia), Cebu (Philippines), and Chiang Mai (Thailand) focusing on the issues of so-called “second cities”. Annual *Liveable Cities Conferences* are now held at varied locations worldwide.

The *Organization of World Heritage Cities* (OWHC - established in 1993) is another networking group comprising 280 cities in which are located sites included on the UNESCO World Heritage List. Meetings to exchange ideas are attended by city mayors, who are supported by their heritage management specialists. The OWHC aims to support the implementation of the World Heritage Convention and to encourage co-operation and exchange on matters of conservation and management.



Melbourne, Australia, has focused on retention of inner city heritage character, public transport, pedestrian and bike path networks to improve accessibility for all. This city has been voted by the Economist Intelligence Unit’s (EIU) Liveability Index as the world’s most liveable city for six years in a row (2011–2017).

Walkable streets can be shared with cars at appropriate times of the day (Montreal, Canada, a World Heritage City)





The European tradition of outdoor dining in public squares is a successful component of a liveable city. (Rome, Italy)



For a city to be liveable, it must manage transport and traffic congestion.

3. SIGNIFICANCE AND AUTHENTICITY OF PLACE

The **cultural significance** and **authenticity of a city** describes and encompasses the positive values and associated meanings of a place. Cultural significance is the sum of the values that a place has. These values provide continuity of the past into the present. They can include the aesthetic appeal of a place (including a rich architectural legacy), its history, social and spiritual practices, patterns of uses, landscaping qualities and scale. Each of these values may have tangible and intangible aspects and it is essential that both are acknowledged and planned for. Cultural significance includes the fabric, setting, use, associations and meanings of a place. It may exist in buildings and in city spaces (tangible heritage), and in the activities in those places (intangible heritage). Heritage cities have many layers of culture, including the significance of the place for the First Nations or indigenous people.

Cultural significance of place embraces the totality of a wide range of historical and social meanings and values and is embodied in the “spirit of place”.

Heritage values vary from place to place. Cultural mapping and heritage surveys of cities and neighbourhoods help determine what is of value and assists in defining the physical boundaries of areas of significance. Throughout Asia, there are many different expressions of traditional architectural vernacular, for example the Asian shophouse has variations across cities, from modest through to elaborate versions. Temples, banks, churches, institutional, commercial and market buildings, combined with views, open spaces and landscape elements all provide the physical elements of a unique spirit of place. Providing protection from demolition of valued built cultural heritage and these identified special places is a key first step, as once demolished, a place or whole neighbourhood is gone forever.



“Spirit of place conveys the cultural essence of a site. In historic sites, it encompasses the meanings of a place accrued through time and through its past and present uses. Expressed through the tangible built heritage, intangible heritage values give the place its distinctive character, an aura that draws people to the place, speaks to them, engages their emotions and, often, gives them a sublime experience of their surroundings...”

How does conservation of a physical structure articulate its spirit of place? Primarily, the place has to be true to its history. This truth must be conveyed in the very process of conservation itself, in a heritage site’s physical form, in its contemporary use, and in its interpretation and presentation.”

LAURENCE LOH, ARCHITECT, PENANG, MALAYSIA

There are now many standards, charters and guidelines which provide frameworks for decision making. The traditional western approach to conservation is encapsulated in the *Venice Charter 1965* and the *Australia ICOMOS Burra Charter 2013*. These charters emphasise the authenticity of the original physical fabric and the need to add new materials in a way which is clearly distinguishable from the old.

In Asia, the issue of historic authenticity differs, as many traditional buildings are frequently repaired on a cyclical basis by local communities, be they religious or secular. The Asian approach, as described in the *Nara Document on Authenticity 1994*, places more emphasis on maintaining the condition of the place, utilising traditional building skills and renewing earlier fabric with new materials using traditional methods. The *Hoi An Protocols for Best Conservation Practice in Asia 2009* stress that the safeguarding of authenticity is the primary objective and prerequisite for conservation.

Whilst such charters have no legal status, in certain cases they have become a conservation code of practice for the countries concerned, and have acquired a quasi-legal status due to adoption by governments and other agencies. Charters guide decision-making. Rigorous assessment of existing cultural significance through cultural mapping and heritage surveys provide the basis for future management of a place. In Australia, (and now referenced in many parts of Asia) the *Burra Charter* provides a guiding framework for managing cultural heritage with clear processes outlined, and definitions of conservation terms. Whatever framework is adopted, it is important to articulate clearly what is significant in defining the character of the place, whether it is a building or a precinct, and schedule these elements with accompanying strategies to ensure that the significance will not be diminished by incremental demolition of structures, inappropriate alterations or adjacent development which detracts from its setting.



Burra Charter Flow Diagram Australia ICOMOS Burra Charter 2013 (image courtesy Australia ICOMOS)

The Burra Charter process is a simple procedure: first assess cultural significance, then develop policies and management strategies which retain that significance, and only after this, implement the changes or proposed works. At the macro-city level, this means identify what makes a neighbourhood or city unique and what contributes to the significance, before developing policies or implementing physical changes. Essential to this process is consultation with relevant stakeholders, and then ongoing review and monitoring of the success of the planning strategies and conservation outcomes.



Once a building is demolished it is gone forever.



Traditional religious practices, lively street activities and low scale buildings framing vistas to prominent buildings, all contribute to the significance and spirit of place. George Town, Penang (above left), Hong Kong (below right) Yangon, Myanmar (next page)





4. TAKING ACTION TO RETAIN YOUR HERITAGE CITY

Cities are dynamic places and require visionary leaders to inspire clear and creative integrated planning frameworks. Long term strategies and goals are required, not short term “quick fix” proposals based on political expediency. Heritage conservation is both economically and socially sustainable and a city should incorporate the following actions:

BROAD SUSTAINABILITY GOALS

Conservation for historic cities and districts should be holistic and not just about buildings, spaces and activities. Ultimately, a city must be a sustainable, with management of energy consumption and waste, and a safe place for its inhabitants. As more and more people move to cities to find jobs, successful cities will be those that employ all of their resources - including their cultural heritage - to promote a healthy environment for investment and community. Historic city cores and their cultural assets have an important role in differentiating a city from its competitors and in improving liveability and economic viability.

Cities are now signing up to **environmentally sustainable commitments**, and retention of a city’s heritage assets is a key ingredient. Heritage conservation is a **sustainable** form of development, as it retains the embodied energy of a building and also preserves scarce and high quality building materials. Embodied energy refers to the energy and resources already expended to construct an existing building. It is the energy consumed by all of the processes associated with the production of a building – and put simply, the greenest building is the one that is already built!! Demolition and equivalent new construction, no matter how energy efficient, typically requires decades to equal the energy savings of rehabilitating an existing building. Current sustainable design measuring criteria, such as green star rating, substantially under-estimate the importance of embodied energy in measuring

energy efficiency and also under-estimate the efficiency of existing buildings.

The 2030 Agenda for Sustainable Development (UN, September 2015) includes a set of 17 Sustainable Development Goals (SDGs) to end poverty, fight inequality and injustice, and tackle climate change by 2030. The Agenda acknowledges that cultural heritage and urban sustainability are inseparable. *Goal 11- Sustainable Cities and Communities - Make cities inclusive, safe, resilient and sustainable* aims to “ensure access to safe and affordable housing...investment in public transport, creation of green public spaces, and improved urban planning and management in a way that is both participatory and inclusive”.

PUBLIC REALM STRATEGIES

Cities flourish where a wide variety of strategies build communities - through the arts, safe open air gathering places, community gardens, and a walkable street environment softened by planting with clean air. **In denser historic inner city areas, the shared public realm is a precious commodity, which needs to be carefully and strategically managed.** Key public realm objectives and initiatives include:

A Walkable City - Efficient public transport systems provide the framework for a walkable city.

This is a key factor in establishing liveable historic city centres and neighbourhoods. Sustainable transport such as bicycles, shuttle services and wide footpaths provide alternatives to car-dominated streets, traffic congestion and time wasting inefficiencies.

A Responsible and Safe City - Provision of street lighting, street furniture, public toilets, and efficient rubbish collection all contribute to a well-managed public realm. Street hygiene is a key factor for a liveable city.



Tree planting and landscaping soften the urban environment as well as lowering temperatures. (Kuala Lumpur top), Johor Bahru, Malaysia (below)

An Artistic City - Street and public art allow for creative expression across a wide society spectrum. Coordinated programs ensure that street art is legitimate even though it can be ephemeral and constantly changing. Cities such as Melbourne, Detroit, Mumbai, and Chicago have become canvases for lively street and public art expression. See also Section 4.7.

A Landscaped and Greened City - Street trees and verge planting can visually unify a place, lower summer air temperatures, decrease pollution levels and create pleasant pedestrian environments and bird habitat. Imaginative urban landscaping can also be achieved with the creative reuse of post-industrial structures which provide opportunities for imaginative landscaping. Often the demolition of these structures can be more expensive than their retention and adaptation into public places. A tree-lined walkway, the Promenade Plantée, in Paris (1993) and the New York High Line, also known as the High Line Park (2006-17) are examples of landscape transformation of abandoned railway structures. Both projects have stimulated real estate activity in adjacent buildings and vacant lots, and receive large numbers of visitors annually, who delight in this imaginative and reinvigorating open space.

Community food gardens (located in vacant lots or green roofs) provide sustenance as well as community building. Many are now being incorporated into “left over” spaces, and can have positive psychological impacts for inner city dwellers. Gardens can also be used as deliberate therapy for rehabilitation programs for marginalised sections of the community.

Participation of the private sector in city greening can be achieved by the use of green roofs and green walls, which either can be included in new buildings or retrofitted on existing roofs and walls. These provide an increase in thermal efficiency of the building, added green spaces,



Community gardens are now common in river parks or pockets of "left over" land. (Boston, USA, (above), Paris community "Garden of 1001 Leaves" (below)

community activities and decreased pollution. Green roofs allow water to be stored by the substrate and then taken up by the plants from where it is returned to the atmosphere through transpiration and evaporation.



In Sydney, Australia, the Wayside Chapel, provides a support centre for marginalised community members. A new building was added to an existing heritage building, and incorporated a roof top garden with organic fruit, herbs and vegetables. The wider purpose of the garden was to create a neighbourly community, teach living skills, and to practice sustainability. It has rainwater tanks, solar panels, worm farms, a compost system, and beehives - but most importantly provides a safe haven for the community. (photos courtesy Tone Wheeler Enviro studio, architects for the project, photographer Owen Zhu)



Pocket park in front of the Cheah Kongsí Temple in Penang (before (above) and after (below)). Simple landscaping with hedges, paving and green lawn provides an attractive setting to the temple. *(photos courtesy Think City, Malaysia)*



Two views of the pocket park on Armenian Street, Penang, completed in 2017. This was previously the site of shophouses which were destroyed by fire. The simplicity of the design and plantings complement the surrounding streetscapes. *(photos courtesy Think City, Malaysia)*



A new urban park on an old reservoir site has established a lower level green space, which retains the industrial structure, and creates a unique escape from the busy traffic of the roadway above. (Oxford St, Paddington, Sydney)

Green walls can be used to great effect to provide sheltered outdoor eating areas. (Norwood, South Australia)

Waterfront land, previously used for industrial purposes, has been transformed to a park, telling the story of these earlier uses by retaining elements of former structures. (Sydney, Australia)



The New York High Line is a 1.45 mile (2.33 km) linear park built in Manhattan, USA on an elevated section of a disused New York Central Railroad spur called the West Side Line. Construction spanned an 11 year period (2006-17) and has spurred real estate development in the adjacent neighbourhoods. Over 5 million people visit the high line annually. *(photos courtesy Lois Becker)*

The New York elevated rail before and after its transformation to the High Line Park *(photos courtesy Joel Sternfield (above) Eddie Crimmins (below), both Friends of the High Line)*

Street art provides an outlet for creative artists to participate in the public realm. Young entrepreneurs such as EcoCaddy, can also provide short distance shuttle services with advertising of local businesses incorporated into the pedicab's design. Melbourne Australia (above), Adelaide, Australia (below), *(photo courtesy Bill Law)*

VISIONARY HERITAGE STRATEGIES

The protection of a city's or a neighbourhood's cultural heritage should be a key objective in a city's strategic plan. It needs to be part of an integrated approach to planning, and is as important as issues of land use, built form, traffic management, and environmental sustainability. Authorities should formally adopt this heritage strategy and therefore commit to retention of identified heritage items and sympathetic infill in heritage areas in order to maintain the heritage values of their city. A succinct heritage strategy, which summarises the recognised heritage values, outlines objectives, policies and achievable actions, is a key to achieving practical outcomes.

Such a strategy does not need to be complicated and could cover the following key points:

Heritage Inventory - Heritage surveys and inventories are required to document the physical assets, history and stories of the place, both the tangible and intangible heritage which should be retained.

Heritage Protection - The protection of heritage character is achieved via demolition control, conservation area/precinct boundary delineation and height control. If height is not controlled, and there is a significant difference between the existing prevailing height and much higher allowable redevelopment, buildings will be demolished to maximise economic return, and the area's character will be destroyed.

Heritage Support - Strategies and actions that support a conservation outcome and their time frames should be outlined. Examples might include financial incentives, free technical advice, training programs for heritage planners, practitioners and contractors, flexibility in some planning requirements (eg car parking requirements), and collaborative approach to conservation projects involving community stakeholders who are given a voice.

Heritage Promotion - Programs which complement planning strategies with educational, advocacy and interpretation programs are key components of a heritage strategy.



Without protection from demolition, and if higher new development is allowed, development pressures result in loss of shophouses, destroying once-consistent and low scale neighbourhoods. (Kuala Lumpur, Malaysia)

Case Study – The Historic Urban Landscape (HUL) approach to City Heritage Management

The ICOMOS *Recommendation on the Historic Urban Landscape*, (2011) has been developed in response to the complexities of the global shift of growth and challenges facing heritage cities today. This framework to city management adopts a holistic approach focussing on culture and heritage, which moves beyond the preservation of the physical environment. It includes natural, cultural and human elements and includes tangible and intangible qualities of the human environment. It seeks to increase the sustainability of planning



In September 2013 Ballarat became the first city to become part of an international pilot program to implement UNESCO's Historic Urban Landscape (HUL) - and by 2017 has developed a comprehensive HUL framework

and design interventions by taking into account the existing built environment, intangible heritage, cultural diversity, socio-economic and environmental factors along with local community values. The retention of the physical setting becomes part of a broader picture.

The home of the pilot program is based at UNESCO's WHITRAP (World Heritage Institute of Training and Research for the Asia and the Pacific Region) in Shanghai. Cities in China where the framework is being applied include Shanghai, (Hongkou River Site), Shuzhou (Jiangsu Province), Tongli (Jiangsu Province) and others. In India sites include Varanasi, Hyderabad and Pushkar.



Hongkou River Site in Shanghai is implementing UNESCO's Historic Urban Landscape (HUL) approach. *(photo courtesy www.historicurbanlandscape.com)*

The HUL approach:

- Starts by asking the community what is important to them and identifying the multiple layers and values
- Focuses on change - asking questions like 'What change is coming and how will it impact on the city?'
- Shifts the focus from preservation to one of conservation, requiring creative and innovative solutions to enable sustainable change in a historic city.

It includes consideration of:

- topography, geomorphology, hydrology and natural features;
- its built environment, both historic and contemporary;
- its infrastructures above and below ground;
- its open spaces and gardens;
- its land use patterns and spatial organisation, perceptions and visual
- relationships, as well as all other elements of the urban structure.
- social and cultural practices and values,
- economic processes
- and the intangible dimensions of heritage as related to diversity and identity'.

The HUL framework consists of four tools

- civic engagement tools,
- knowledge and planning tools,
- regulatory systems and
- financial tools using collaborative and participatory approaches, making them responsive to dynamic local environments.

Six critical steps guide the application of the HUL framework, localised to each place.

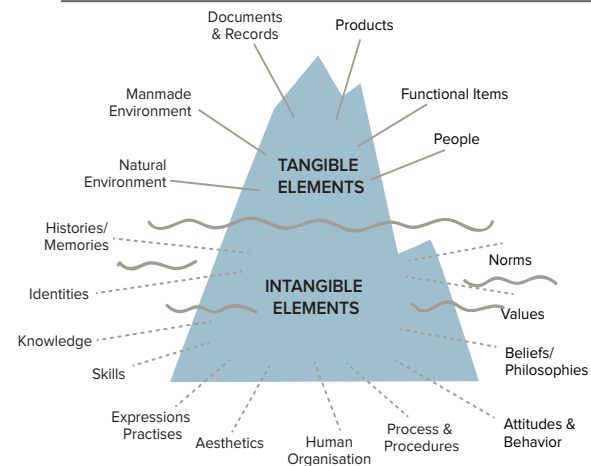
Diagram showing how tangible and intangible elements can be like an iceberg – sometimes only the tangible elements are evident and important intangible elements can be overlooked. Cultural mapping will ensure that all aspects, both readily visible and “below the surface,” are considered. (diagram courtesy Janet Pillai)

CULTURAL MAPPING AND COMMUNITY CONSULTATION

Cultural mapping is a tool to involve communities in the identification and recording of their cultural assets, and then using this knowledge to inform collective strategies, planning processes, and other initiatives. These assets are both tangible (quantitative, eg heritage buildings) and intangible (qualitative, eg uses, traditions, activities). This tool forms part of the first stage of the *Burra Charter* process, that of defining the cultural significance of the place and ensures a broad and comprehensive assessment of community values, of cultural identity, vitality, sense of place, and quality of life. Cultural mapping complements the more fabric-based heritage surveys, which systematically record, via heritage inventories, those places which should be kept.

A cultural mapping exercise depends upon active **community participation and consultation**, and emphasises the tangible and intangible values of a place – with its multiple meanings, its cultural character, its roots, narratives and stories.

Tangible and Intangible aspects of culture



CONSERVATION AND NEW DEVELOPMENT GUIDELINES

Many conservation guideline documents have now been prepared for heritage cities and are widely available. They assist planning agencies to determine the appropriateness of development including new development/infill and adaptive reuse.

Conservation guidelines should include the following:

Historical context - to provide an explanation of why the area/ place is important historically and how it has developed and evolved over time

Conservation definitions and principles - to establish clear language which describes good conservation practice

New infill development - outlining the importance of development which respects the context - covering issues of **character, scale, form, siting, materials, colour and detailing** (refer Section 5 principles)

Adaptive reuse principles - emphasising retention of heritage values, sustainability of reuse proposals and ensuring compatible design responses (refer Section 6 principles)

Signage guidelines - to ensure advertising does not dominate the townscape

Interpretation strategies - which communicate the story and layers of history of the city and individual sites

Landscaping improvements - promoting urban street tree planting, urban parks community gardens and private sector landscaping contribution

Intangible cultural activities - to ensure existing patterns of use and activities which are valued by the community are not removed but are actively encouraged



Conservation guidelines provide a basis for understanding styles of buildings and how to conserve them. (image courtesy George Town World Heritage Inc, illustrations by Tang Yeow Wooi – extract from Penang Shophouse Style Booklet)

Case Study – Conservation Guidelines in the Fort Precinct of Mumbai

The development of comprehensive Conservation Guidelines in the Fort Precinct of Mumbai has ensured that the cluttered nature of the streetscape has been improved with the removal of inappropriate signs and the revealing of the detailing of the buildings underneath.

“A conservation alliance in the city now links both architects and local businesses/building owners and has directly influenced local government resulting in Mumbai having the first and still strongest streetscape preservation guidelines in all of India. The projects have addressed: cladding and signage issues, street furniture, environmental and waterfront issues, visual air space and most recently the promotion of street art ... We have together moved conservation in India from a building-based approach to a streetscape approach.” (photos and quote courtesy, Abha Narain Lambah, conservation architect).



Before



After



Before



After

Successful application of conservation guidelines in the Fort Precinct, Mumbai
(before application of guidelines and after signage removal)

CONSERVATION MANAGEMENT PLANS

Many city planning agencies now require the preparation of a Conservation Management Plan (CMP), providing an important management tool which outlines the recommended processes in caring for a heritage item or area. A CMP is...

"...a document which sets out what is significant in a place and, consequently, what policies are appropriate to enable that significance to be retained for its future use and development. For most places, it deals with the management of change."

(Kerr, JS *The Conservation Plan*, 2000)

A CMP ensures that the significance of the place and policy development is undertaken **BEFORE** changes to the place occur. A CMP assists with the assessment of any adaptation/ associated new development proposal, and includes: a clear statement of the significance of the item, its physical condition, a clear identification of the constraints and opportunities that affect the item (including the owner's needs), and clear policies about its conservation. It should also outline the parameters for new development and the degree of change that is permissible.

A CMP is useful as a framework for an agreed-upon management approach to a heritage item, particularly where the ownership is complicated. A CMP is useful to outline which works can be undertaken on a place that will not require approvals (these are known as permit-exempt works). A good understanding of the significance of the elements that make up the heritage item is essential.

The revitalization of the Blue House cluster (Wan Chai, Hong Kong, SAR, China) followed the recommendations of a detailed Conservation Management Plan. Three dilapidated shophouse blocks were conserved and the living history and culture of this heritage place has been retained by ensuring the residents were not displaced. Interpretation was included in the project with the retention of one residence showing the cramped sleeping arrangements of multiple family occupancy and other interpretative material. This project won the the 2017 Award of Excellence in the UNESCO Heritage Awards.



HERITAGE IMPACT ASSESSMENT

When a development associated with a heritage place or precinct is proposed, many regulatory authorities require an assessment of the impact of change to a heritage place, known as a Heritage Impact Assessment (HIA). This should be a straightforward process and can be viewed as a logical extension to other planning documents such as Environmental Impact Assessments (where these are required).

An HIA outlines:

- why the place is of significance
- what impact (positive and negative) the proposed works will have on that significance
- what measures are proposed to mitigate negative impacts

When is an HIA needed?

The following works often trigger a HIA, but the length and contents of an HIA will vary depending upon the location and scale of proposed interventions.

- Any **demolition** of a proposed heritage item or part of a heritage item. Full demolition would generally be prohibited by a heritage listing; however, when any demolition of part of a building is proposed, rationale for this is provided in an HIA.
- **Extension to an existing heritage place**, outlining how it appropriately connects to the existing place, and how the scale, built form, materials, and details all complement the existing site.
- **Adaptive reuse of a heritage place**, outlining how proposed physical works retain the significance of the place.
- **Development adjacent to an existing heritage place**, outlining how it appropriately relates to the existing place, and how the character, scale, built form, siting, materials and colour, and detailing all complement the existing place.

A very short HIA was used to explain the proposed conservation works (and associated internal alterations) to this damaged shop front. The original detailing to the shopfront on the top has been removed. Careful site analysis and reference to a similar nearby building for detailing (below) guided the proposed shopfront upgrade. (Yangon, Myanmar)



- **New development within a designated conservation area or historic district or precinct**, outlining how this development appropriately relates to the existing place, and how the character, scale, built form, siting, materials and colour, and detailing all complement the existing place.
- **Change of use of an existing heritage place**, and how this impacts the physical fabric of the place, and what changes are required to accommodate this use.

An HIA needs to explain how the heritage values of the context or the place itself are to be conserved, or preferably enhanced, by the proposed development. An HIA should be a concise document and incorporate a statement of heritage significance and conservation policies. Previously prepared documents, such as Conservation Management Plans, physical condition reports and any other specialist consultant reports (if/where they exist) would be separately attached and referred to in the statement.



An HIA needs to include assessment of the impact of new development on the existing setting of an existing heritage building.



An example of common development pressures in Asia cities - an entirely different scale of development proposed for the site, despite the identification of heritage values of the former government housing quarters in Kuala Lumpur, known as the "100 quarters". This site was cleared in early 2015. In this example height limits were not controlled and large-scale development was permitted resulting in the destruction of the whole precinct.

A consistent neighbourhood of two-storey shophouses, with significant heritage and social values will be replaced by high-rise development of entirely different scale (below, under construction). The impact of the new development on the social values of this place was not considered and the replacement residential development has removed this earlier layer of history.

INCENTIVES FOR HERITAGE CONSERVATION

Positive incentives are essential for achieving integrated conservation in cities and neighbourhoods. These successfully encourage the retention and conservation of cultural heritage places and can be provided in a variety of ways:

- **Establishment of a heritage fund to provide grants** - This can be either direct grants, or matching financial contributions, and relies on government commitment and budget allocations. Heritage funds often stimulate multiplier effects of grant money by facilitating projects that would otherwise not happen. In many cases, the dollar value of the grant is multiplied many times in the implementation of a project. Think City is an example of a Malaysian agency which supports a variety of heritage grants for buildings over 30 years old, greening projects (eg parks and community gardens) and for cultural mapping projects.
- **Tourist revenue reinvestment** – Heritage sites and cities attract heritage tourism. The increase in heritage tourism at important sites (particularly those inscribed on the World Heritage List) has resulted in some places being “swamped” by visitors with resultant wear and tear of fabric. Reinvestment of tourism revenue back into the place itself is essential to allow for conservation and maintenance. Visitor entry fees, accommodation/bed taxes and other mechanisms can establish the necessary revenue for conservation works. Due to potential impact of large crowds, World Heritage inscription can sometimes harm the place it is seeking to save. Given this possibility, a site’s carrying capacity (the number of visitors a site can accommodate without damage) should be determined and policies developed to ensure tourism is not causing damage to the site.

- **Free expert advice** – is a key component to ensure high standards of conservation and is an incentive itself, saving owners, investors, developers and local authorities time and money in the development assessment and decision making process. Heritage advisor positions are now common in local authorities throughout the world, and in Australia, have been in operation for over 40 years at the local government level, providing accessible technical advice. Such advice assists in raising standards of conservation and new development in heritage cities and neighbourhoods, and allows for skills development amongst advisors.



Typical influx of tourists in a heritage site. It is important that revenue is reinvested back into the conservation of the site (Shanxi province, China)

- **Planning flexibility** — This can be used to encourage outcomes which protect and encourage adaptive reuse of existing buildings and better quality of development. Providing a density bonus if an existing building is retained (and if this can be achieved within conservation parameters), or waiving the requirement for on-site car parking are real incentives for building retention. Important places may be rescued by government purchase for appropriate redevelopment or rehabilitation, followed by re-sale into the private market. Transfer of development potential can an effective mechanism. This refers to selling off the unused development potential of the site (if a heritage building is retained) and transferring this to another site. However this is not always applicable, and depends on the size and character of the city. However, **such flexibility should only be provided if the heritage values of the site are retained and are not adversely impacted by the use of the incentive.**
- **Education and explaining the benefits** — Educating the public by compiling and distributing information about the economic benefits of heritage retention is important for revitalising heritage in cities. Heritage agencies world-wide view this as a key component of cultural heritage programs.
- **Providing recognition through awards programs** — Public recognition through awards programs provides opportunities to reward those who participate in the heritage conservation of their city. These need not be expensive – presentation of local community awards, such as a framed certificate, at a public media event can generate good will and appreciation. They provide recognition and the opportunity to share best conservation practice. Personal awards (for “heritage heroes” - those who have made a particular contribution to heritage revitalisation initiatives) again promotes and elevates the debate about heritage conservation.

Typical shophouse row to be conserved as part of a Think City supported grants. Grant programs can stimulate repairs, particularly where there are challenges of multiple owners. (Johor Bahru, Malaysia)



The **UNESCO Asia Pacific Heritage Awards**, which commenced in 2000, have significantly raised the level of debate of conservation projects in the Asian region. The winning projects have set high technical and social standards for conservation and have inspired local communities to take action to save their historic buildings. Since 2000, UNESCO has received 638 entries from 25 countries, spanning a wide range of conservation projects from family homes to palace complexes. A total of 196 projects have received UNESCO Heritage awards for conservation. There is also an Award for New Design in Heritage Contexts which recognises contemporary architectural design in a heritage context. The winning projects have set high standards for conservation in the region, increased local conservation efforts, and inspired local communities to take action to save their historic buildings.

These UNESCO awards have been documented in three well-illustrated full colour publications and can also be viewed on the UNESCO Bangkok website. Winning projects showcase best conservation practice during the first fifteen years of the program, and record in meticulous detail the winning projects. The winners encompass a range of building types, from fortified palaces to vernacular residences, ornate houses of worship to utilitarian factories, elegant engineering works to urban districts. The case studies demonstrate how strong public-private partnerships and innovative grassroots initiatives can create powerful ways to protect the historic built environment. Many of the awarded projects demonstrate the continuing traditions associated with a heritage site; in some cases, living practices and rituals, which were fading away, were rejuvenated. Many of these projects revitalise a local sense of identity, and promote the latest approaches and techniques for high standards of physical conservation.

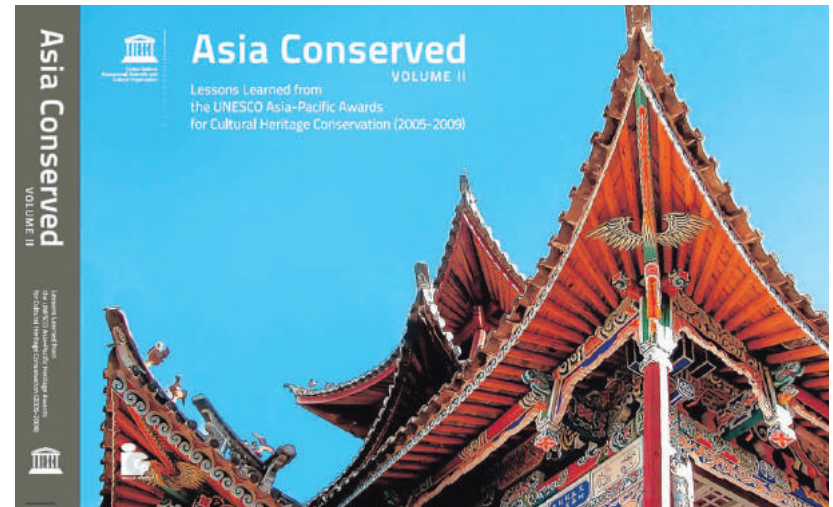
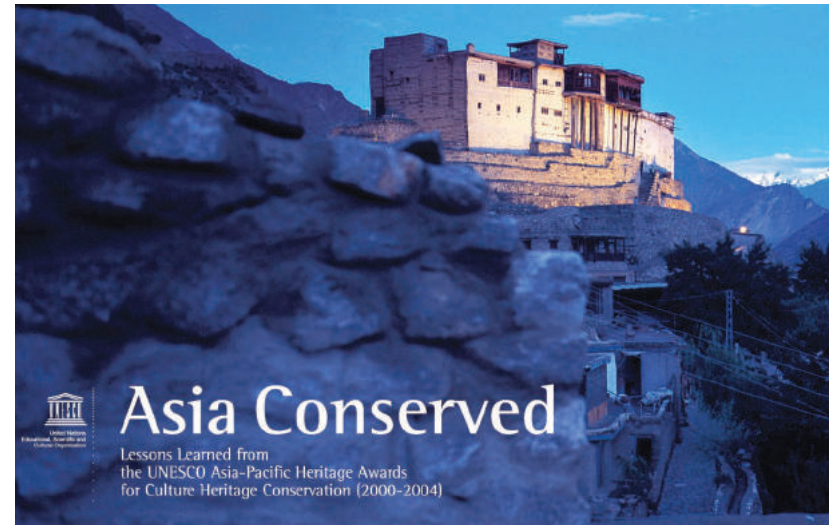


2009 UNESCO Award For New Design - Maosi Ecological Demonstration Primary School - Gansu Province, China. This project *"adapts the environmentally sustainable aspects of vernacular earthen architecture. ... The careful selection of materials and techniques, combining mud brick with modern technology such as double glazing, has allowed the school to minimize its energy consumption. The school complex blends smoothly and fits comfortably into the surrounding landscape...[and] creates a liveable space at a human scale ... the project sends a strong message about the relevance of applying traditional wisdom to build in an ecologically and socially sustainable manner."* (extract from UNESCO award citation). (photos courtesy of Maosi Ecological Demonstration Primary School)

The UNESCO criteria for the **Award for New Design in Heritage Contexts** requires a demonstration of excellence in the following areas:

- Outstanding design concept that demonstrates critical thinking in articulating an innovative response to the specific historic context;
- How well the new structure helps to reveal the qualities of the place, including historical, architectural, cultural and social significance;
- The compatibility and appropriateness of the new structure's program/function in its context;
- How well the new structure integrates with the existing built and natural context. Factors include, but are not limited to, the following: typology, siting, massing, form, scale, character, colour, texture;
- The justification of selection and quality control of materials and building techniques (either contemporary, vernacular or a combination of both);
- The manner in which the process and the final product extend the local community's cultural and social continuum;
- The influence of the project on architectural practice and design policy locally, nationally, regionally or internationally

Asia Conserved publication covers images courtesy of UNESCO Bangkok





2011 UNESCO Award for New Design - Sydney Harbour Youth Hostel Association and the Big Dig Archaeology Education Centre, Australia. This project *“successfully puts urban archaeology in the spotlight, showcasing the site through creative use as a youth hostel and a public education centre. It provides hands-on access to one of Australia’s most well-known urban archaeological sites, offering visitors a glimpse of early European settlement in the late 18th century. The new development sits lightly in the site, using innovative structural design to minimize the footprint on the archaeological remnants. Located in Sydney’s historic harbour-side precinct, with a view of the city’s most prominent modern architectural icons, the building’s sleek design stands out as a fresh contemporary counterpoint.”* (extract from UNESCO award citation). The development includes interpretive signs explaining the history and showing the outlines of the earlier buildings, and displays of artefacts uncovered during the archaeological excavation.



SYDNEY HARBOUR YHA AND THE BIG DIG ARCHAEOLOGY EDUCATION CENTRE

ACCOMMODATION IS AVAILABLE HERE AT SYDNEY HARBOUR YHA

Come up to reception, book online at yha.com.au or phone us on 6272 0300. Education programs are offered here in The Big Dig Archaeology Education Centre. For more information visit our website thebigdig.com.au

For information about The Rocks visit the Sydney Visitors Centre on the corner of Argyle and Playfair streets. To further explore the history of The Rocks visit The Rocks Discovery Museum on Kendall Lane and Susannah Place Museum opposite.

This is one of Sydney's most important archaeological sites. Building remains and artefacts dating back to the earliest days of the European settlement of Australia have been found here.

For thousands of years, Aboriginal coastal clans lived on and around this site. They lived alongside the European settlement, founded in 1788. Initially the settlers built flimsy shelters then, from 1795, more substantial houses. The following century saw intensive development, with numerous houses, pubs and shops being built. By the late 1800s up to 200 people lived here.

At the start of the 20th century the New South Wales Government took over this land in response to growing hysteria about the 'alien' conditions of housing in The Rocks, particularly following the outbreak of historic plague. Between 1902 and 1915 the government demolished all the buildings on this site.

The site was then covered over and used for industrial purposes and parking. In 1994 an extensive archaeological excavation of the site, known as The Big Dig, took place. This dig and subsequent excavations have revealed the footings of up to 44 houses and uncovered over a million artefacts. As part of the YHA development, you can now view these footings and a selection of artefacts.

Wheelchair access via hostel entrance on Cumberland Street



2011 UNESCO Award for New Design - Sydney Harbour Youth Hostel Association and the Big Dig Archaeology Education Centre, Australia. The development includes interpretive signs explaining the history and showing the outlines of the earlier buildings, and displays of artefacts uncovered during the archaeological excavation.

Training programs for heritage skills development and model conservation projects can be undertaken on buildings at risk, with skilled traditional tradesmen and crafts people undertaking conservation repair works and educating younger workers. In South Australia, a Heritage Artisan Trades Training Program is run through the Construction Industry Training Board. The program trains apprentices and is funded by a levy collected with building permit fees. Masonry, carpentry, roofing and other traditional tradesmen undertake conservation repairs on targeted at-risk buildings, which are generally owned by not-for-profit organisations. This has proved very successful and involves minimal cost for maximum benefit – trained tradesmen and restored buildings.



In India, a craftsmen training program for Haveli houses has achieved considerable success, ensuring that traditional building techniques are passed on from master to trainee (photos courtesy Urvashi Srivastava)

Model Conservation Projects - A recent Model Conservation Project in Yangon, Myanmar (completed in May 2016) has conserved a run-down significant heritage building. Unlike many restoration initiatives, which result in the gentrification of the project area, this project has retained the people who live in the building and the community around it to allow for a sustainable future. Traditional lime mortar was used, and timber windows retained and conserved. The building houses 12 families (80 people in total) who represent the diverse mix of ethnicities and religions that lends Yangon its distinct character. The approach has also encouraged community participation and is seen as an important step toward the holistic conservation of downtown Yangon.



Model Conservation Project in Yangon, Myanmar, before conservation (above) and after conservation (below) *(after photos courtesy of Turquoise Mountain)*



“The project aims to raise awareness and appreciation of the value of Yangon’s heritage among local people, authorities and the government, and to link with, and help inform, wider urban planning initiatives.”

TURQUOISE MOUNTAIN AND
THE YANGON HERITAGE TRUST



Model Conservation Project in Yangon, Myanmar, before conservation (above) and after conservation (below) (after photos courtesy of Turquoise Mountain)

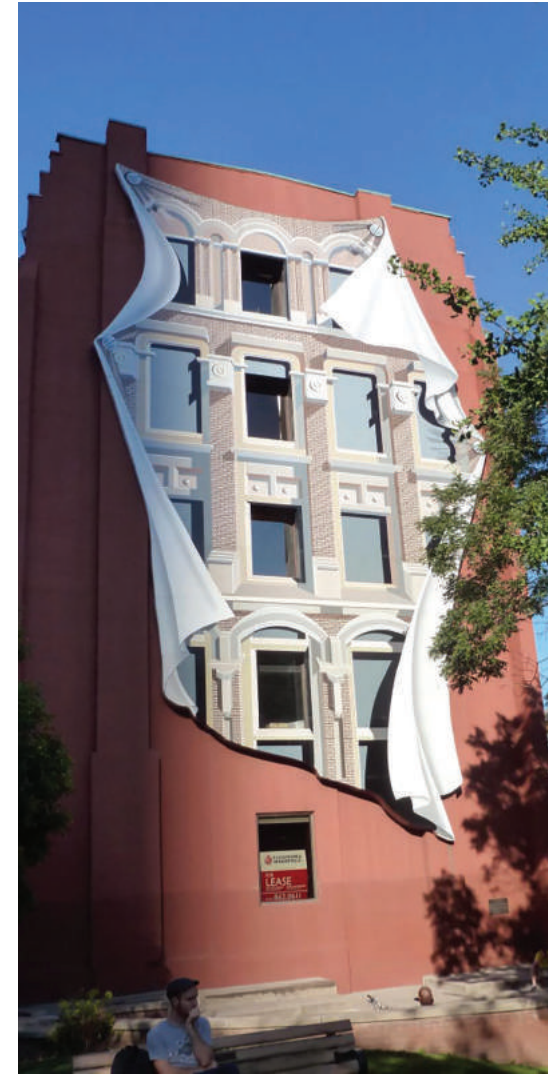
INTERPRETATION, PUBLIC AND STREET ART

The story of a city is built on its unique physical and social environment, the contributions of past generations, and its history and culture. A city's story is what makes it different from any other city and when properly presented, this story creates a special experience that motivates visitors and residents to learn about the area. Interpreting this history and "telling the story" both for locals and tourists, is finding wide expression throughout the world. Interpretation signs, public art, cultural walks, city and highway drives, printed guides and audio-visual tourist aids are all key to an interesting cultural experience of a city or town.



In Hong Kong, the Dr Sun Yat-Sen Historical Trail commemorates the formative years of Dr Sun in Hong Kong and also his historical legacy and achievements. Visitors follow a brochure and walk down streets with interpretive signs.

A recent art walk in Butterworth, Malaysia, has been used to activate a back lane with historically themed installations, supporting young artists and establishing a sense of community involvement.



Street art and wall murals animate blank walls creating visual delight.(Toronto, Canada).



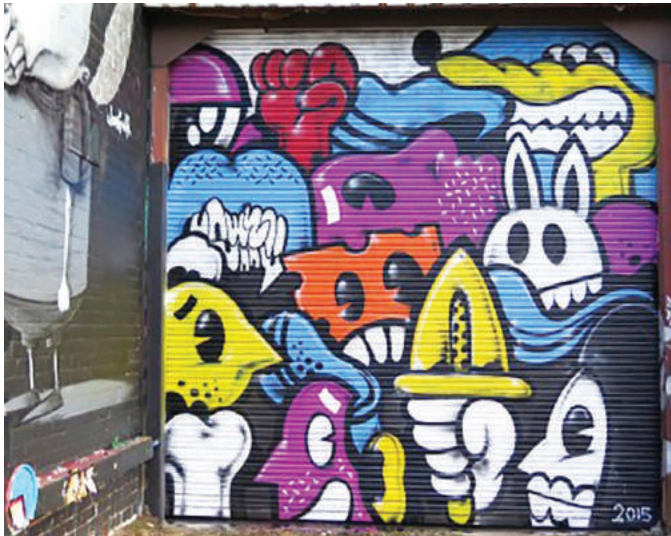
Street art and wall murals animate blank walls creating visual delight. (Johor Bahru, Malaysia).

The success of tourism and interpreting heritage resources are closely linked. Without heritage assets, tourists have fewer reasons to visit, and without tourism, many communities have reduced economic potential to conserve their heritage. The use of digital applications is increasing, such as “iDiscover”, a private sector development. This app offers guided walks around Hong Kong, Macau, Yangon (Myanmar) and cities in Indonesia, focusing on the intangible heritage - the soul of the neighbourhood and what is happening in the buildings. This is aimed at people who do not speak the local language and is designed to feel like you are walking around with a local friend.

Penang, Malaysia, is now renowned for its varied street art and signage, with brochures and popular guided tours which explain to visitors the historical linkages.



Cities are now recognising the economic and social importance of culture and the arts. Cultural centres, galleries, public art, street art, wall murals and the positioning of cities as creative artistic hubs is developing worldwide. Art transforms and personalises civic spaces, providing visual interest and enriching the unique sense of place. Public and street art provide visual variety and can transform previously run down neighbourhoods. Artists and communities negotiate appropriate locations for public and street art and create opportunities for emotional expression and for friendship networks through collaboration.



Murals can enhance blank end walls, and tell stories (Lille, France, above). Street art, while less permanent, provides a creative outlet for young artists and transforms blank wall spaces. (Melbourne, Australia, below)

Public art can revitalise ordinary public spaces into dynamic places. Chicago is now a city which has become famous for lively public art destination.

5. DESIGN PRINCIPLES FOR INFILL DEVELOPMENT

In heritage cities and neighbourhoods, new infill development should be undertaken in an architectural style which is compatible with the surrounding character. Infill development refers to new development amongst and between existing buildings or an extension to an existing building. **New development in conservation areas or historic precincts should only occur where this does not require the demolition of a heritage building which contributes to the character of the area.**

When new development responds to its setting and context, the city as an evolving continuum is reinforced, and a unique sense of place is maintained. While a new building may be iconic, it should also be in harmony with the heritage; a careful insertion responding quietly to the existing scale and character. A successful infill development is a contemporary piece of design, and of its own time and should not copy or replicate heritage buildings.

Development guidelines assist local government agencies to ensure that new development respects the character of the place. However, skill is required to assess the appropriateness or otherwise of development proposals; in some cases, the appropriate application of guidelines requires interpretation and sometimes some latitude. Design review by qualified and skilled personnel is essential to determine the appropriateness of the design. Sometimes new development, which reflects the predominant character, may have inappropriate detailing which results in the development appearing to be “mock historic.” Guidelines assist in preventing architectural styles which make no reference to the context, or at the other extreme, mock the context, and these guidelines will help to provide greater certainty for potential developers.





The rebuilding of new development along the Arno River in Florence after destruction during the Second World War provides a good understanding of the prevailing design characteristics of this World Heritage City. New development is easy to identify but it fits well with the existing by virtue of an understanding of the existing character, compatible scale, form, siting (the setbacks match the early buildings), materials, colours, facade articulation and details.

The retention of the building facade only (facadism) is generally inappropriate and should be viewed as a last resort. In certain cases, in narrow streets, retaining only the facade will retain the streetscape, if any new development behind the facade is not visible or is barely visible from the opposite side of the street. For wide streets, where associated new development is visually over-bearing and clearly visible, retaining a facade only makes a mockery of conservation, and should not be undertaken.

This chapter outlines how to design a new building that responds to the existing character and heritage values. Design issues are different for each project - these principles are a guide to ensure a "good fit" results.

The following infill guidelines in this chapter assume either a vacant site between existing buildings, or a project where a major extension to the existing heritage building is proposed. See Chapter 6 for adaptation of existing buildings.

INFILL DEVELOPMENT- RECOMMENDED PRINCIPLES AND PROCESSES FOR THE DEVELOPER TO ACHIEVE A SUCCESSFUL NEW DEVELOPMENT

Check what statutory controls are in place, particularly in relation to scale. Out-of-scale buildings will visually dominate the context. Height is one of the most important issues in ensuring a new development fits into the context.

Consult with the authorities early in the process, and preferably obtain some in-principle approval for the proposal. This should be done, **prior** to preparing full architectural documentation and specifications for the work.

Obtain the right professional advice – Ensure that your architect is trained and/or experienced in designing in a heritage context. Do not impose outside “fashionable” design elements from elsewhere. Design solutions should be unique to the site and generated locally in response to the values of the place. Formulaic design responses, transposed from elsewhere, should not be used. Heritage professionals should be chosen based on experience – higher fees may well be offset by costs savings in the development and conservation process.



New buildings (arrowed) continue the character, scale, form, siting, materials and colour of the existing heritage streetscape in the World Heritage City of Florence.



Study the character and built form of the context of the site –

Undertake a site analysis including a general understanding of the values of the place and how the site sits in relation to the context around it – the general heights, vistas, views, materials, colours and building forms in the neighbourhood. Refer to early photos of the site and understand how it developed over time.

Does the new development have appropriate scale and height? –

Height is generally the most important of all design issues. A building, which is much higher will not fit into the existing context. Higher levels at the rear of the building can sometimes add floor space without visually dominating the context. **A developer should provide front elevation drawings which show the neighbouring buildings on either side** to explain how the new building fits in, and include three dimensional views of the development to allow a clear understanding of the proposal.

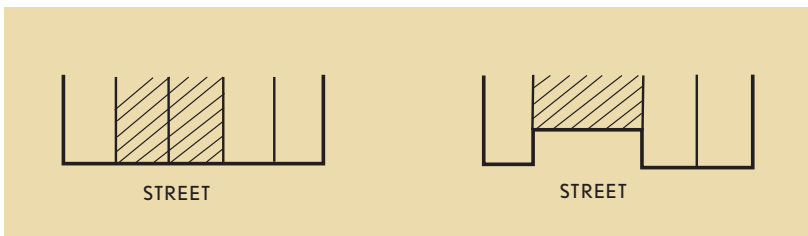


✘ New buildings constructed of an inappropriate scale and material selection.

Is the siting and setback of new development appropriate? - To have the desired consistent urban context, new development should repeat existing setbacks and site layout patterns. For example, car parking installed in front of a new development will completely change the rhythm of the street pattern. (Parking should be accommodated elsewhere or prohibited.) Carefully detail the junction with existing buildings to ensure that new development does not conflict with any decorative elements on the neighbouring building.



✗ New development (arrowed) has broken the established setback/pattern with car parking disrupting building alignments.



✓
Plan of new development shown hatched - a setback is not appropriate if it breaks the rhythm of frontage alignment.



✓ Infill building where the setback aligns with the existing street pattern; materials and colours are compatible with existing heritage buildings.
ABOVE: Old Montreal, Canada. BELOW: Oxford, UK.

Is the proposed development an appropriate form? A new building should not visually dominate an existing townscape context. New infill which is too bulky and disrupts views erodes the character of a neighborhood.



✘ This development next to an important early mosque obliterates the original view of the building
(image courtesy Yangon Heritage Trust)



✘ New development (above) where building scale, materials, colour and detailing is discordant with opposite building (below) at an important street intersection.

Is the proposal well considered contemporary design? An infill development is a contemporary piece of design and should fit well into a streetscape. Copying adjacent buildings or employing elaborated details confuses what is old and what is new. Historically, reconstruction of destroyed townscapes after war or earthquakes has been undertaken, and in some cases can be justified to continue the story and memory of a place. However, good new design that reflects - but does not copy - existing character, is the best approach.

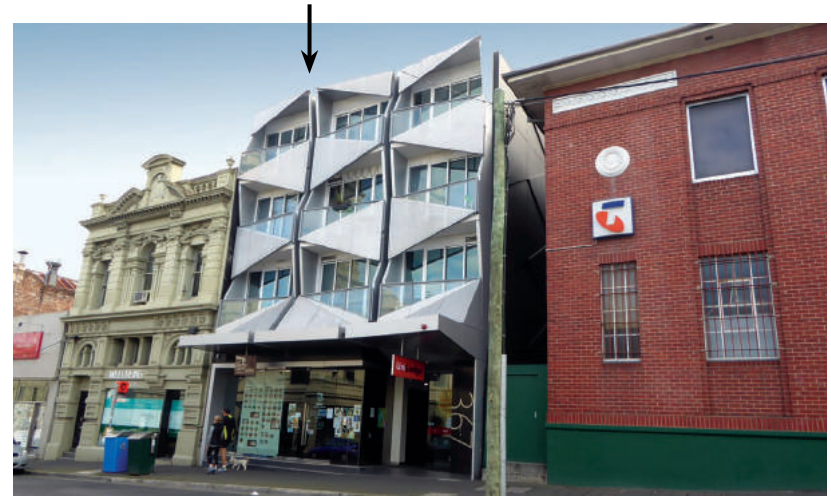
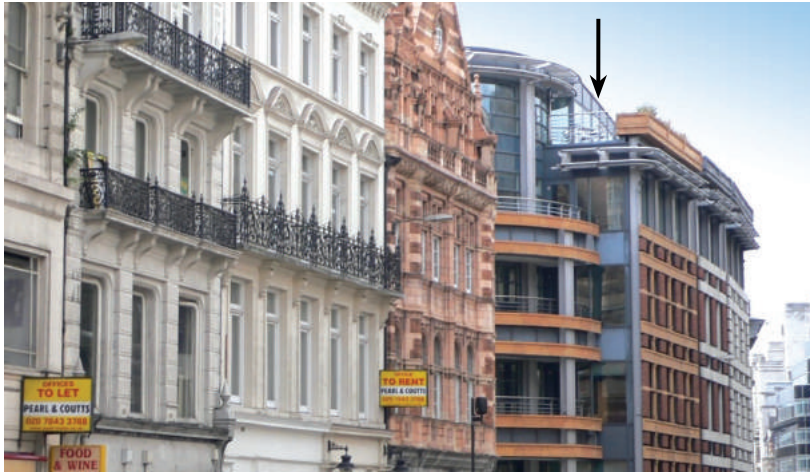


✓ Example of a successful 1960s infill design with the height, form, colours and details reflecting the existing. (Penang, Malaysia)



✓ Example of 1960s infill with the new bank building reflecting the scale (the slight increased height is considered appropriate given it occupies its own block), form, siting, materials and colours of the adjoining earlier buildings, but in a simplified form. (Penang, Malaysia)

Are the materials and colours appropriate? Infill buildings should reflect those around them. Strident bright colours and large expanses of reflective glass are generally not appropriate.



✓ Examples where new design continues the scale, siting, materials and continues the modulation of the existing heritage streetscape (London, UK (above), Melbourne, Australia (below))

✗ These examples utilise materials, colours and details which disrupt the streetscape context.



✘ These examples utilise materials, colours and details which disrupt the streetscape context.

✘ Example where a whole new town comprises replicas of old styles (Poundbury, UK) - this is false history and fake heritage, and precludes the opportunity for sensitive contemporary design which reflects the positive traditional village attributes.

Are design principles and details understood? Heritage buildings traditionally have structural masonry elements, with a defined base, middle and top to the facades. Where this exists, these rhythms and lines can be reflected in new development to provide visual linkages across the facades. Generally large unbroken expanses of reflective glazing are not appropriate. Design elements should echo the characteristics of heritage buildings without replicating these elements; continuing horizontal and vertical elements are visually pleasing. Consider green roof initiatives and other sustainable design elements.



✓ New commercial development in South Melbourne, Australia (above) which reflects the buildings opposite (below) in terms of character, scale, materials, colour, and detailing



✓ New infill buildings with well-considered facade articulation that continue the scale of adjacent colour and buildings. Istanbul, Turkey (above), Montreal, Canada (below)



✓ New commercial-scale corner buildings with well-considered facade articulation and scale does not compete with adjacent historic cathedral landmark (Amiens, France).



✘ Infill building, whilst of a similar height, disrupts this streetscape by incorporating materials and openings which disrupt and disunify the existing consistent streetscape.



✔ New developments where the facade articulation, colour, height and proportions echo existing buildings (Rome, Italy).



✔



“Often an existing building cannot be extended to provide the required space, and a new addition is needed. A “part-buried” extension can minimise the impact, as occurred at St Andrew’s Church in Kowloon, Hong Kong. The street frontage elevation reused the stone from the existing wall, visually tying this to the established character of the street, and the church above was not visually crowded out by a large extension.”

ARCHITECT NELSON CHEN

✓ An underground extension to a 1906 church, is visually compatible, enhances the setting and provides a landscaped green roof which lowers the overall energy consumption (Kowloon, Hong Kong) SAR, images courtesy of Nelson Chen).

Is the street frontage pedestrian friendly? Avoid blank walls, car park grilles, and closed-off street level interfaces at the pedestrian level. Make the building entrance identifiable and of an appropriate pedestrian scale.

Provide a written design statement - This could be in the form of a Heritage Impact Assessment which explains how the new development responds to the existing context and does not diminish the heritage values of the precinct or streetscape. This should include reference to existing planning scheme guidelines or policies where they exist, and the rationale for the choice of materials, built form, height and overall design approach.



Consider dating your building - The inclusion of a construction date on the facade of your building provides a clear future reference. In Yangon, Myanmar, there is a long tradition of dating buildings which makes the city become a reference place for architectural styles. Early buildings often incorporated either foundation stones or date plaques which assist future generations in understanding the history of the building.



✓ In this example a large car park is concealed behind a perimeter building, so that the car access and car park grilles are not visible. Car access is concealed via a side entrance. (Santa Barbara, USA)

Can the new car park be designed to look like an infill building?

The insertion of car parks in existing contexts can be contentious. Generally car parks should be discouraged from inner city heritage precincts as they encourage more car access. However, where car parking is required the design should conceal the car park function, presenting a building to the street front, not open grilles with visible cars behind.



✗ This car park, while concealed behind a building frontage has poorly considered design elements (such as the large dark central section, and green glazed windows).

Does the building fit in? “Starchitecture” is a humorous word that identifies signature buildings designed by famous architects, or by architects seeking their fame. In heritage contexts, these buildings can be overbearing and jarring, or they can add interest and diversity. The iconic Guggenheim Museum Bilbao in Spain (architect Frank Gehry, 1997) is so innovative that it nearly single-handedly branded Bilbao as a futurist and creative city, resulting in considerable economic benefit and additional transformation. However the question becomes - who decides on the appropriateness or otherwise of these iconic interventions? - and whether local context is important or not. At

best, these developments can succeed in the branding objective, but at worst, they can ruin their contexts, or quickly go “out of fashion.” They can fail when the scale is dominating, or the design so contrasting that there is no design language which links the new building to its context. It also goes wrong when all resources go to this new development - depleting the finances necessary to retain the existing built environment. Starchitecture becomes contested and argued over - and social media debate can brand the outcome as “Failed Architecture”!



✓ Frank Gehry's "Dancing House" (1992-6) in Prague is an example of well-mannered infill by a famous architect, and was constructed on the site of a building destroyed in 1945. It continues the "conversation" among the generally consistent Baroque-styled buildings, being of similar height and by dynamic modulating window elevations. The colour toning also complement the existing. *(photo courtesy Wikimedia Commons)*



Guggenheim Museum, Bilbao, Spain. *(photo courtesy David Logan)*



✘ Typical infill example of the c1970s which does not fit in and shows no relationship to the existing scale and design context of neighbouring buildings. Heavy horizontal proportions compete with the existing character.



✘ This recent infill (2016) tries to fit in. However, the corner street façade, while aligning in height with the lower scale of the side street is too small in scale. If it was of the height of the right hand building it could have concealed the higher apartment levels behind by incorporating a stronger mass and volume on the corner. While it followed local guidelines, design review could have improved the outcome.



✓ Federation Square in Melbourne, Australia, is set amongst, but not adjacent to, important heritage buildings. The contemporary design, whilst in stark contrast with its context and controversial at the time, is of appropriate height, and stimulates lively visual interest. The outdoor community spaces are actively used and loved by the citizens of Melbourne.

TYPICAL SHOPHOUSE CASE STUDY
PENANG, MALAYSIA – Vacant land
between continuous shophouses

RECOMMENDED DESIGN PRINCIPLES:

Height – similar to adjoining, or slightly higher (eg 1 – 1.2 metre) to accommodate 3 storeys in a volume similar to neighbouring buildings, incorporate sloping pitched roof to match existing

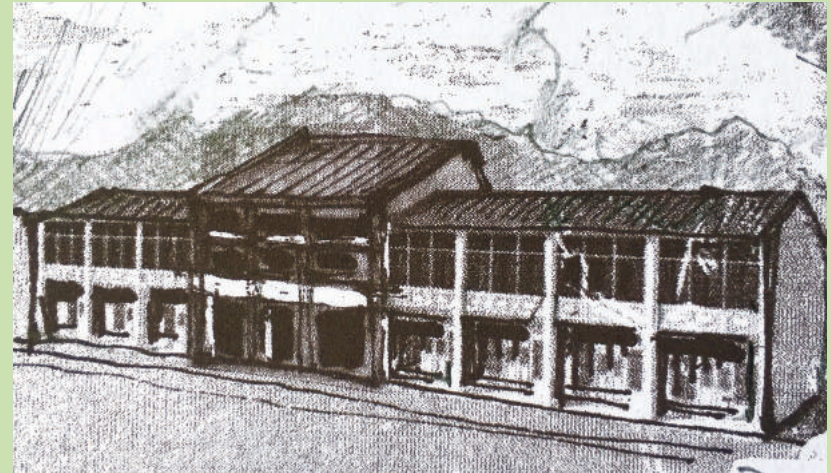
Setback from street - to match existing with a 5 foot way (the linking arcade at street level which is traditionally 5 feet wide) incorporated to extend the existing 5 foot way

Vertical divisions – design to express vertical modulation of shophouse

Materials – highly reflective glass or strident bright colours NOT recommended

Rear – development could be slightly higher at the rear, but will be viewed from the existing access laneway so attention is to be paid to rear design configuration





Three proposals for a typical shophouse site - the top left hand proposal introduces an inconsistent height, uses modern reflective materials and negatively disrupts the frontage. The top right hand proposal has a higher ridge height allowing 3 internal floors into a two storey streetscape and would be a better alternative to the top left option. The site is located in a precinct with some variation in shophouse heights, which would allow for this option to sit comfortably. A third alternative below continues the existing height and building elements in a contemporary way (Coloured drawings courtesy of Ooi Bok Kim Architects, black and white sketch by author).



6. DESIGN PRINCIPLES FOR ADAPTIVE REUSE

Many buildings were built for uses that no longer exist today. When a building becomes vacant and redundant, it is vulnerable to neglect and eventual demolition. This chapter outlines how to adapt an existing building to a viable new use.

Adaptive reuse of a heritage building may continue the existing use, or involve a change of use that is appropriate and ensures an ongoing future for the building, where the existing use is no longer viable. It can also involve extending the building, when the current space is not sufficient for the proposed use. All projects should retain the character and heritage values of the place, and design issues are always different for each project.



✓ This example is a nearly ruined building (left) that was saved from demolition and successfully rebuilt and adapted to a new use (right) (Penang, Malaysia)

RECOMMENDED STEPS TO ACHIEVE SUCCESSFUL ADAPTIVE REUSE OUTCOMES

Establish the heritage significance of the place - It is essential to firstly understand the history and significance of your place by referring to site and documentary evidence, early photos and oral histories to understand how it has developed over time. Your proposed adaptive reuse should capture the unique spirit of the place and build upon its heritage values. The preparation of a **Conservation Plan** is the best approach to guide the necessary decisions. This is now generally required by government authorities so that appropriate and careful decisions are made which retain the heritage values of the place.



Check what listings and statutory controls exist for the place

Some heritage places have no protection, but if a place has a heritage listing, this will require you to obtain approvals from relevant government authorities. There should be early consultation with the approval authorities to obtain in-principle agreement for your proposal. This should be done prior to preparing full architectural documentation for the work.

Seek appropriate professional advice – Use an architect, engineer and other consultants who are experienced with heritage projects. Detail your proposal carefully, using the existing place to provide design inspiration. Do not impose outside “fashionable” design elements which are superimposed over existing elements without relating to them. Find an engineer that is sympathetic to your



proposals and work together with your architect to develop structural solutions. **Use appropriate repair techniques** such as mortar mixes that match the original, instead of introducing new and technically incompatible materials. Select experienced sub-consultants, **particularly disability specialists**, to provide careful design of disabled access.

Propose a compatible use – Generally the best use is what the building was originally constructed for, but often this is not possible. A different use can result in substantial changes being required, and this needs to be balanced against protecting the values of the place and providing a sustainable future. There should be a clearly defined brief, which is realistic about the degree of proposed change.

Ensure that the scale and setting of the place is retained - No place is in isolation of its setting. If extensions are proposed, these should not be bulky or out-of-scale, and should have a clear design relationship to the existing building.



The refurbishment of this building included the addition of an extra floor, undertaken in glass to distinguish from the original in a “light” and “transparent” design approach. As this building is in an industrial area, and not part of a consistent row, this is a creative approach to its redevelopment - incorporating street art and colour into the facade. (Fitzroy, Australia)



✘ This “bolt on” intervention has impacted on the integrity of the original building in an attempt to make it contemporary and visually exciting. However the design approach has no contextual relationship to the place.

✘ The original building has lost its integrity and new work has no design relationship to the existing. Elements of the original building are concealed and built over. The contrast of colour and block like composition has compromised the heritage values.

Ensure that conservation of the existing is to a high standard - Are the decisions guided by a Conservation Management Plan (CMP)? Ensure that original details are retained, and the choice of materials are carefully considered. Facades should not be concealed, extensions should be elegant and thoughtfully designed using complementary materials.



✓ The upgrade of this existing heritage building in Penang, Malaysia, involved the removal of a later “modern” add-on facade, revealing the original facade which now contributes to the character of the street.

Prepare a Heritage Impact Assessment and/or Design Statement - These documents explain to the approval authorities how the adaptive reuse, and any extension, responds to the existing context and refrain from diminishing the heritage values of the place. They should provide the rationale for the project including the built form, height, chosen details, choice of materials, and other design issues.



✗ The vertical extension to this building could have been successful except for the strident bronze-coloured central element, which visually disrupts the elevation.

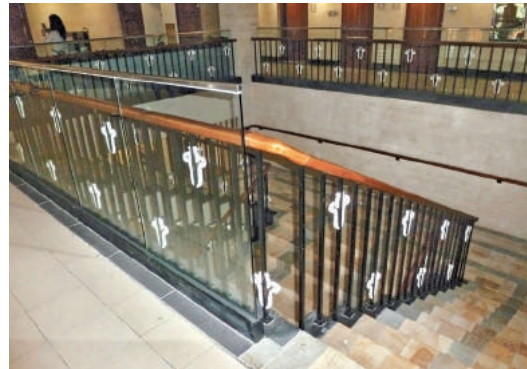
Consider the use of volunteer input - There have been many projects where, for example, university students have made valuable contributions by either preparing background research or contributing design ideas. This could be in addition to, though not instead of, paid professional advice and will educate and mentor the next generation of conservation practitioners.

Seek out heritage funding where this is available - Investigate if there are any assistance programs with government or private sponsorship. Determine what is needed to make the project work financially.

Determine if statutory regulations are negatively impacting on appropriate conservation outcomes - It is often necessary to propose alternative solutions to existing regulations where the heritage values might be compromised. Be open to challenges and think creatively.

It may be necessary to question when told something isn't possible! Regulations are often applicable to new construction but not to existing heritage buildings - eg; door widths, stair configurations, fire protection requirements - and alternative solutions can lead to better outcomes. Overruling of some regulations can be achieved when suitable alternatives are created, presented and negotiated - authorities often can apply discretion in order to achieve better heritage outcomes.

Explore a range of solutions for installation of new services such as lifts, and air conditioning. Ensure that plant associated with such services is included in your design, and shown on drawings. There have been many situations where air conditioning plant is an afterthought, and is highly visible. Sometimes authorities require this "afterthought" to be removed. Retain existing handrails and supplement with simple additions to satisfy height requirements.



✓ The installation of connecting vertical circulation is a challenge that can be creatively overcome. The example left shows the "attachment" of a staircase at the rear of a building as a separate structure, yet linked to the body of the building. There is minimal impact on the fabric of the heritage building. The example right shows simple modification to a non-complying handrail to bring it to regulation height without removing or damaging the original



✗ Air conditioning units should not be an afterthought. The clutter of these retro-fitted split cycle units located on the front facade have significant negative visual impact.

Ensure that heritage interpretation is included as part of the project - The inclusion of interpretation will ensure that the users and visitors understand and appreciate the history and significance of the place.

Approach the project with passion - Adaptive re-use projects can result in some sleepless nights, as each project is different and requires different solutions! Perseverance is a great asset, together with diplomacy. Enroll others in your vision for the place, and be open to the unexpected!

Share the success of your project - Submit it for an award! The more adaptive re-use projects which are promoted, the more confidence is given to others who are contemplating a similar project.



✓ The adaptive re-use of this former flour mill into apartments has incorporated a detailed interpretation program in the front foyer of the building, including signage to explain the history of the former industrial complex. (Newtown, Sydney)

Retain significant building elements - Are original and significant external and internal details retained? Facadism (or retention of only the front facade of a building) is generally inappropriate, particularly when the building behind is totally out of scale and visible. Front facade retention only may be appropriate if the remaining building has been extensively altered and is in poor condition. However, this should only occur as a last resort, and in a narrow street where rear development is not visible behind the front wall. Generally, the whole external envelope, including the roof form, should be retained. Internally, floors and any significant spaces and elements should also be retained.



✘ An large scale high rise development dominates and dwarfs the remnant facade, which is all that remains of the original heritage building (right) *(photo right courtesy of Penang Heritage Trust)*



✘ Although the front wall is retained, the highly visible rear addition completely dwarfs the streetscape.



✘ These examples show the retention of fragments of walls only. Facadism is not an appropriate design solution as it destroys the heritage integrity of the building. All these examples show development which retains only a fragment of the building with visually overbearing rear development. These are not good outcomes.

CASE STUDY - ADAPTIVE REUSE IN PENANG

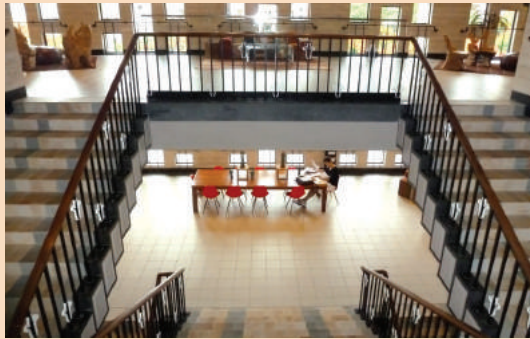
This significant heritage building, located within the core zone of the George Town UNESCO World Heritage Site, was erected as the Indian Overseas Bank and opened in July 1937. In 2016 it was adapted to become the Penang office for Khazanah Nasional.

A Conservation Plan guided the work and ensured that the significant heritage qualities of the building were retained.

Adaptation work incorporates new vertical circulation using an external lift linked via the rear verandah. Installation of a rear green walled garden, open plan offices, meeting halls and inventive flexible exhibitions spaces result in a highly successful adaptation. (Penang, Malaysia)







The former North Kowloon Magistracy has become the campus of the Savannah College of Art and Design. Original interiors including the court room and the police cells are retained in its new use as an art college.

CASE STUDY - ADAPTIVE REUSE IN HONG KONG - Revitalising Historic Buildings Through Partnership Scheme

In 2009, the Hong Kong government introduced a Revitalising Historic Buildings Through Partnership Scheme which encourages not-for-profit organisations (NPOs) to “adaptively reuse” government-owned heritage buildings.

The NPOs are required to provide detailed plans on how their historic building/complex will be conserved, how the historical significance will be retained, how the social enterprise will be operated in order to achieve financial viability and how the local community will benefit.

The Hong Kong government pays for the renovation and up to HK\$5 million in a one-off grant to cover initial operating costs with the NPO contributing a nominal amount. To date, 15 NPOs have participated in the program with a variety of dynamic and innovative uses.



The former Police Station at Tai O, has been converted into a boutique hotel, with extensive visitor interpretation and well-considered integration of services such as lifts and escape stairs.



Mei Ho House, one of Hong Kong's oldest public housing blocks, has been transformed into a hip youth hostel retaining the significance of the 1950s "moderne" architectural style.

The former Police Married Quarters is now the home of adynamic art complex with small scale trade tenants. It incorporates a public art mural.

7. STREETWISE DESIGN CHECKLIST

The following checklist can be used and added to when formulating management strategies to ensure that design for your heritage city or neighbourhood reinforces the existing character:

STRATEGIES TO MAKE YOUR HERITAGE CITY “LIVEABLE”	✓	✗	TIME FRAME
Develop key environmentally sustainable “Liveable City” initiatives including:			
Effective public transport networks, walking and cycling infrastructure providing access to			
<ul style="list-style-type: none"> • employment 			
<ul style="list-style-type: none"> • education: 			
<ul style="list-style-type: none"> • diverse housing options 			
<ul style="list-style-type: none"> • local shops in local neighbourhoods 			
<ul style="list-style-type: none"> • public open spaces, connecting landscaped footpaths, and parks 			
<ul style="list-style-type: none"> • health and community services 			
<ul style="list-style-type: none"> • leisure and cultural facilities: 			
Creative shared work space hubs - reusing vacant buildings where applicable			
Retention of tangible cultural heritage			
Retention of intangible cultural heritage			
Active and safe street life – including shared vehicle/pedestrian streets for markets and outdoor dining			
Artistic and social activities to engage the community – including street and public art and interpretation			
Participation in liveable city networks in the region			
List your own liveable city initiatives and ideas on the following lines:			

ACTIONS TO RETAIN THE CHARACTER OF YOUR HERITAGE CITY
— THE PUBLIC REALM



TIME FRAME

<p>Promote heritage conservation as part of the 2030 Agenda for Sustainable Development <i>Goal 11- Sustainable Cities and Communities - Make cities inclusive, safe, resilient and sustainable - with access to safe and affordable housing, investment in public transport, creation of green public spaces, and improved urban planning and management in a way that is participatory and inclusive.</i></p>			
<p>Formulate a public realm improvement program. Public local authorities are responsible for the public realm and therefore they need to develop and implement a city-wide improvement program as part of their role in enhancing the public realm comprehensive traffic and transport management strategies by developing</p>			
<p>Formulate comprehensive traffic and transport management strategies by developing</p> <ul style="list-style-type: none"> • efficient mass transit systems – to help eliminate the negative impacts of heavy traffic 			
<ul style="list-style-type: none"> • bicycle lanes 			
<ul style="list-style-type: none"> • walkable street environment with generous footpaths, street tree planting and pedestrianized streets which provide mid-block linkages to better connect walkways 			
<p>Formulate greening and landscaping strategies by developing</p> <ul style="list-style-type: none"> • street planting 			
<ul style="list-style-type: none"> • green roofs and walls 			
<ul style="list-style-type: none"> • walkable street environment with generous footpaths, street and verge planting 			
<ul style="list-style-type: none"> community food gardens 			
<ul style="list-style-type: none"> • creatively reuse redundant industrial sites for community and open space initiatives 			
<ul style="list-style-type: none"> • create active public spaces with facilities for outdoor dining 			
<p>Arts and culture strategies</p> <ul style="list-style-type: none"> • community engagement via the arts, public art, street art, to animate city spaces 			
<ul style="list-style-type: none"> • create active public spaces with public entertainment venues for live outdoor street theatre 			
<p>List your own public realm initiatives and ideas on the following lines:</p>			

ACTIONS TO RETAIN THE CHARACTER OF YOUR HERITAGE CITY
— THE MANAGEMENT OF HERITAGE ASSETS



TIME FRAME

			TIME FRAME
Prepare a visionary Heritage Strategy – as part of an integrated approach to planning			
Undertake community consultation and cultural mapping			
Undertake a comprehensive heritage survey, with data bases, and inventories.			
Revise planning schemes to include demolition control of heritage places			
Prepare conservation guidelines- which also include signage, new development, adaptive reuse and extension principles, change of use and interpretation strategies and how any development impacts on the adjacent built form			
Prepare conservation management plans (CMPs) for individual places			
Require heritage impact statements (HIAs) as part of the development approval process			
Use financial and other incentives to promote good outcomes:			
• establish a heritage fund			
• tourist revenue reinvestment – tax visitors via entrance fees, hotels, airport etc			
• investigate funding sources, including corporate and not for profit			
• provide free expert advice			
• use flexible planning frameworks for conservation outcomes			
• provide recognition through awards			
• heritage education programs			
• provide training programs for heritage skills development in the construction industry and for professional staff			
• undertaken model conservation projects			
• undertake interpretation and public art programs to “tell the story” of the place			
• encourage street art to engage youth			
• encourage small scale entrepreneurs and start up companies. Encourage use of empty and redundant buildings, particularly where government owned.			
Prioritise your projects — heritage conservation, infrastructure upgrades, traffic management, landscaping, and general social objectives of provision of housing			
Participate in heritage city networks in the region			

PRINCIPLES OF GOOD DESIGN FOR ADAPTIVE REUSE OF EXISTING HERITAGE BUILDINGS



TIME FRAME

Has the heritage significance and values of the place been clearly defined?			
Have you checked existing heritage listings and controls?			
Does the project conserve the context, scale and setting of the place?			
Are the changes to the existing building fabric appropriate?			
Have you sought professional advice?			
Have you prepared a Heritage Impact Assessment or Design Statement?			
Is volunteer labour and input possible?			
Is the project affordable and can it be assisted with external funding?,			
Do you need to challenge the regulatory authorities?			
Are exits, handrail heights and other elements conforming to regulations yet still retaining important original building elements?			
Is plant and equipment located out of site, or in an appropriate location?			
Have you explored a range of solutions for installation of new services?			
Have enough of the significant building elements been retained?			
Does your project incorporate creative uses, such as small start-ups in shared work spaces?			
Does the project incorporate heritage interpretation?			
Have you shared your success and publicised your completed project?			
List your other adaptive reuse design principles on the following lines:			

PRINCIPLES OF GOOD DESIGN FOR NEW DEVELOPMENT ON VACANT LAND IN A HERITAGE CITY



TIME FRAME

Have you assessed the character of the neighbourhood and its components?			
Have you assessed what is already on the site?			
Is the setback of new development appropriate?			
Is the scale of the new development appropriate? Is it too high?			
Does the proposed development visually dominate the streetscape?			
It is well considered contemporary design?			
Are design principles, building elements and proportions understood?			
Are the materials, colours and finishes appropriate?			
Is landscaping integrated into the design?			
Are green roofs, walls, solar power, water saving and other energy saving design elements incorporated at the outset?			
Is plant and equipment located out of sight, or in an appropriate location?			
Is the street facade of the development pedestrian friendly and active?			
Are there blank or carpark which walls deaden a street?			
Does the design allow for small scale businesses such as local cafes and convenience stores?			
List your own new development design principles on the following lines:			

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ABOUT THE AUTHOR

Elizabeth Vines, from Adelaide Australia, is an award winning conservation architect, who over her 40 year architectural career has advised to a wide range of government agencies, local councils and private clients. Elizabeth is a passionate advocate for heritage conservation issues and has worked throughout Australia and Asia on a variety of projects as well as teaching which she now considers an important part of sharing her experience. She is a past President of Australia ICOMOS (2012 – 2015), visiting Professor at Hong Kong University, and an Adjunct Professor at the Cultural Heritage and Museum Studies, Deakin University, Melbourne, Australia. She studied architecture at Melbourne University and Carleton University, Ottawa, Canada. Her 30 year conservation architecture practice, McDougall & Vines, has undertaken a wide variety of projects often in challenging circumstances, negotiating and facilitating good conservation outcomes. She also worked for 30 years in Broken Hill (in outback Australia), a city dear to her heart where her legacy of practical conservation is very evident. She was a visiting Getty Scholar in Los Angeles in 2016 and in June 2009 was awarded the Medal of the Order of Australia for Services to Heritage Architecture.

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