PRESERVATION STRATEGIES FOR MID-SIZED CITIES:
CUENCA AS A CASE STUDY

Prepared by
University of Pennsylvania School of Design
Graduate Program in Historic Preservation Department

Urban Regeneration in the Americas: Conservation and Development of Urban Heritage Sites

Lauren Aguilar
Xochilt Armenta
Zara Bhatti
Xiaolin Chen
Dorcas Corchado
Yuexian Huang
Meredith Johnson
Katie Levesque
Katherine Randall
Ran Wei
Tarsha Wilson
Shuxin Wu
Yue Wu

Under the direction of Professor Eduardo Rojas

FOREWORD

This report synthetizes the findings of the authors' work as part of their participation in the seminar-studio course "Conservation and Development of Urban Heritage Sites" conducted in the Graduate Program in Historic Preservation at the University of Pennsylvania's School of Design in the Spring Semester of 2018.

The course explored the challenges faced by urban heritage conservation that go beyond those foreseen by the 1964 Charter of Venice, subsequent international agreements, and ensuing technical documents issued by UNESCO and ICOMOS. These challenges emerge from recent international agreements including the United Nations' Sustainable Development Goals (2015), UN HABITAT´s New Urban Agenda (2016) and UNESCO´s Historic Urban Landscapes Recommendation (2011). The topics discussed in the course include: the broader understanding of the multiple values of the intangible and tangible urban heritage and of their contribution to the social and economic development of the communities; and effective responses to the mounting development pressures on the cities' historic centers and neighborhoods emerging from a growing demand for residential, craft manufacture, services and commercial space in central locations.

There is a growing consensus that to effectively respond to the emerging challenges the conservation of the urban heritage must become a central activity in the integrated management of cities and cease being an ancillary activity to urban development controlled by cultural institutions. When discharging the new responsibilities emerging from these commitments, city governments get only limited help from the traditional land use and building control tools of the urban planning profession. There is a need to develop analytical and planning tools capable of assessing the multiple values of the urban heritage; find effective ways for putting them to work for the social and economic development of the communities; and devise effective public-private cooperation mechanisms to put them into action.

Through the study of the most recent academic literature, the analysis of cases, seminar discussions and practical studio work, the course explored key questions confronted by practitioners when addressing the integration of the urban heritage to the social and economic development process of communities. They include mechanisms to assess the potential contributions of the urban heritage to the socio-economic development process and planning, and economic and social development and investment management interventions that apply to mid-size cites in developing countries. The knowledge gained in the seminar part was put into practice in the studio work that provides inputs to officials of the Ministry of Urban Development and Housing of the Government of Ecuador engaged in devising a methodology to assist municipalities of small and medium-size cities to protect and develop their urban heritage.

The practical work is framed in a cooperation agreement of the Program in Historic Preservation of PennDesign with the Ministry of Urban Development and Housing of the Government of Ecuador (MIDUVI). The Government of Ecuador (GoE) is a signatory of the Convention Concerning the Protection of the World Cultural and

Natural Heritage (1972), the Convention for the Safeguarding of the Intangible Heritage (2003), the United Nations Sustainable Development Goals (UN 2015) and the New Urban Agenda (UN HABITAT 2016). These international agreements commit the Government to protect the tangible and intangible heritage as a resource for the social and economic development of the communities. The MIDUVI is preparing guidelines to assist the local governments of mid- and small-size cities to protect and develop their urban heritage in ways that are consistent with the country's international commitments and the most advanced practices. In the studio work the students were asked to: provide the MIDUVI with a substantiated opinion on the key factors involved in the contribution of the urban heritage to the social and economic development of the communities; suggest approaches to assess the socio-cultural and economic values of the intangible and tangible heritage following UNESCO´s Recommendation on the Urban Historic Landscapes and the most advanced practices in urban heritage conservation; identify effective conservation, planning and city management tools and programs to effectively incorporate the urban heritage to the social and economic development of the communities; and provide international examples of the successful application of the recommended tools and programs.

Acknowledgements

The students and the lecturer are grateful for the support provided by: Esteban Orellana, Verónica Venegas, and Montserrat Carranza of the Ministry of Urban Development and Housing of Ecuador; Pablo Barzallo and Pablo Abad of the Municipaltiy of Cuenca and Fausto Cardoso, Sebastián Astudillo, Gabriela García, Jorge Amaya, María Eugenia Siguencia, María Cecilia Achig, Paola Jaramillo and Caty Rodas of the Cuenca World Heritage Site of the University of Cuenca, Ecuador.

TABLE OF CONTENTS

MID-SIZED CITIES

The population in Ecuador has seen a steady increase over the last 60 years; growing from approximately 3.4 million in 1950 to nearly 14.5 million in 2010. This population upsurge has resulted in rapid urbanization, with the majority of growth occurring in the Coastal and Amazonian regions. This demographic transition is showing signs of slowing, but the effect it has had, on medium-sized cities in particular, continues to be a pressing matter.

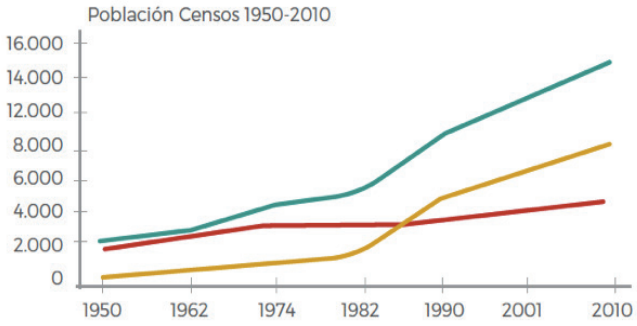


Gráfico 2. Evolución de la población en Ecuador

Fuente: CPV, INEC 1950 – 2010. Elaboración: Equipo de investigación CITE.

1

Medium-sized cities in Ecuador, defined as having population between 100,000 and 1,000,000, have grown not only in size but also in number. Since 1990, the number of medium-sized cities in Ecuador has increased from 15, to 17 in 2001, to 20 in 2010. The presence of an urbanizing population is evident in this growth pattern. While medium-sized cities are both growing and expanding, Ecuador's two largest cities, Quito and Guayaquil, are home to over 40% of the country's total urban population. On average, these two cities house almost 10 times as many residents as the next largest cities. These urban giants have remained large over the most recent growth period that began in the 1960s.

Tipología de ciudad		Promedio de habitantes por tipología de ciudad			Número de ciudades por tipología			Tasa de urbanización promedio
		1990	2001	2010	1990	2001	2010	2010
Grandes	>1 000 000	1 275 259	1 692 379	1 943 213	2	2	2	84 %
Medianas	1 000 000 100 000	146 445	162 588	198 760	15	17	20	65 %
Pequeñas	100 000- 20 000	40 948	36 660	47 569	84	96	103	38 %
Localidades	<20 000	5103	5275	7181	111	103	98	33 %

2

Though the trend is slowing, urbanization in Ecuador continues to be an attractive option for many residents. Ecuador's cities offer infrastructure improvements, like potable water and sewage removal. Cities also offer quality of life opportunities, such as access to education and variety in job opportunities. Medium-sized cities are generally more attractive than large cities because they feel more manageable to new residents and have a more affordable cost of living, as compared to large cities.

3

Unregulated urban sprawl is present throughout Ecuador but has been primarily found in medium-sized cities as they are the most likely to experience rapid growth

1-4. "La Prosperidad en las Ciudades de Ecuador: Primer reporte del Indice de Prosperidad Urbana (CPI) para 27 cuidades ecuatorianas." Banco de Desarrollo de America Latina. 2016.

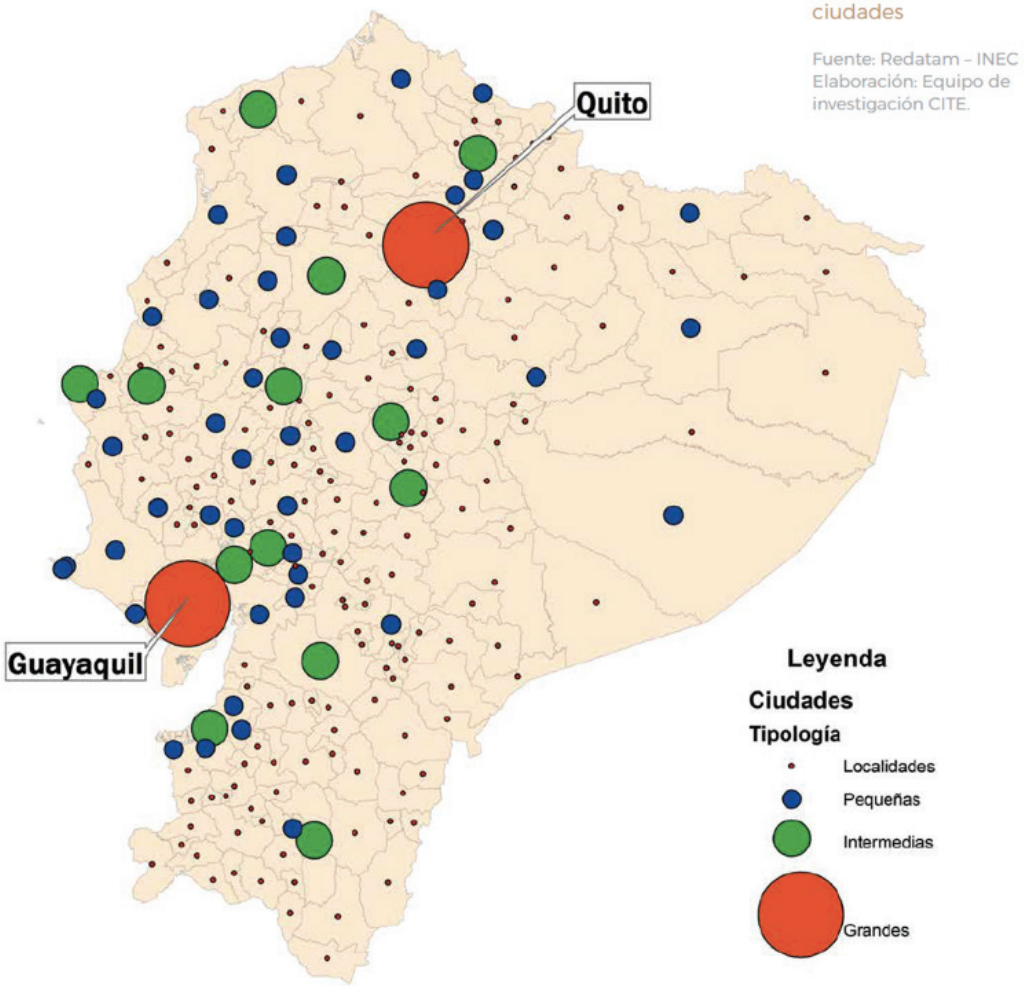


Gráfico 4.
Distribución y tipología de ciudades

Fuente: Redatam – INEC
Elaboración: Equipo de investigación CITE.

4

over a short period of time. This vulnerability means that they have had less time and resources to update the urban infrastructure within their city limits, and, oftentimes, have less access to expertise, either within the municipality itself or through professional resources. When unmanaged, rapid urbanization and sprawl can threaten all aspects of a sustainable, equitable, and prosperous urban future but is a particular threat to historic resources, including both tangible and intangible heritage assets.

From 1980 to about 2015, a significant effort was made to develop regulating municipalities for Ecuador's medium-sized cities. These regulating bodies, called Gobiernos Autonomos Descentralizados (GAD) should be utilized to execute a series of tasks focused on regulating the built environment and creating more livable cities, with heritage conservation placed at the forefront of this initiative.

CUENCA

Cuenca as it exists today is the result of many cultural layers, conditioned by time, captured in one space. As one roams through the historic center these different layers of time and culture become apparent through the material and natural heritage of the city. It is precisely the relationship of the urban layout, build fabric, and topography that creates a unique space in which the intangible heritage of Cuencano culture can thrive.


1

Geology and Hydrology

Located in a valley in the southern part of the Inter-Andean Region, Cuenca is 432 km south of Quito and 191 km east of Guayaquil, Ecuador's two largest cities. Cuenca is comprised of three terraces in the valley that are interrupted by 4 rivers: the Tarqui, the Yanuncay, Tomebamba and the Machángara Rivers. The historic center occupies half of one of the terraces. On the south side, The Tomebamba River and a pronounced change in elevation called "El Barranco" ("The Cliff") create a defined distinction between the historic center and the modern city. These two urban characters are physically delimited by the geography and hydrology of the zone; the historic center is systematized with north to south and East to west streets that form a reticle.[1]

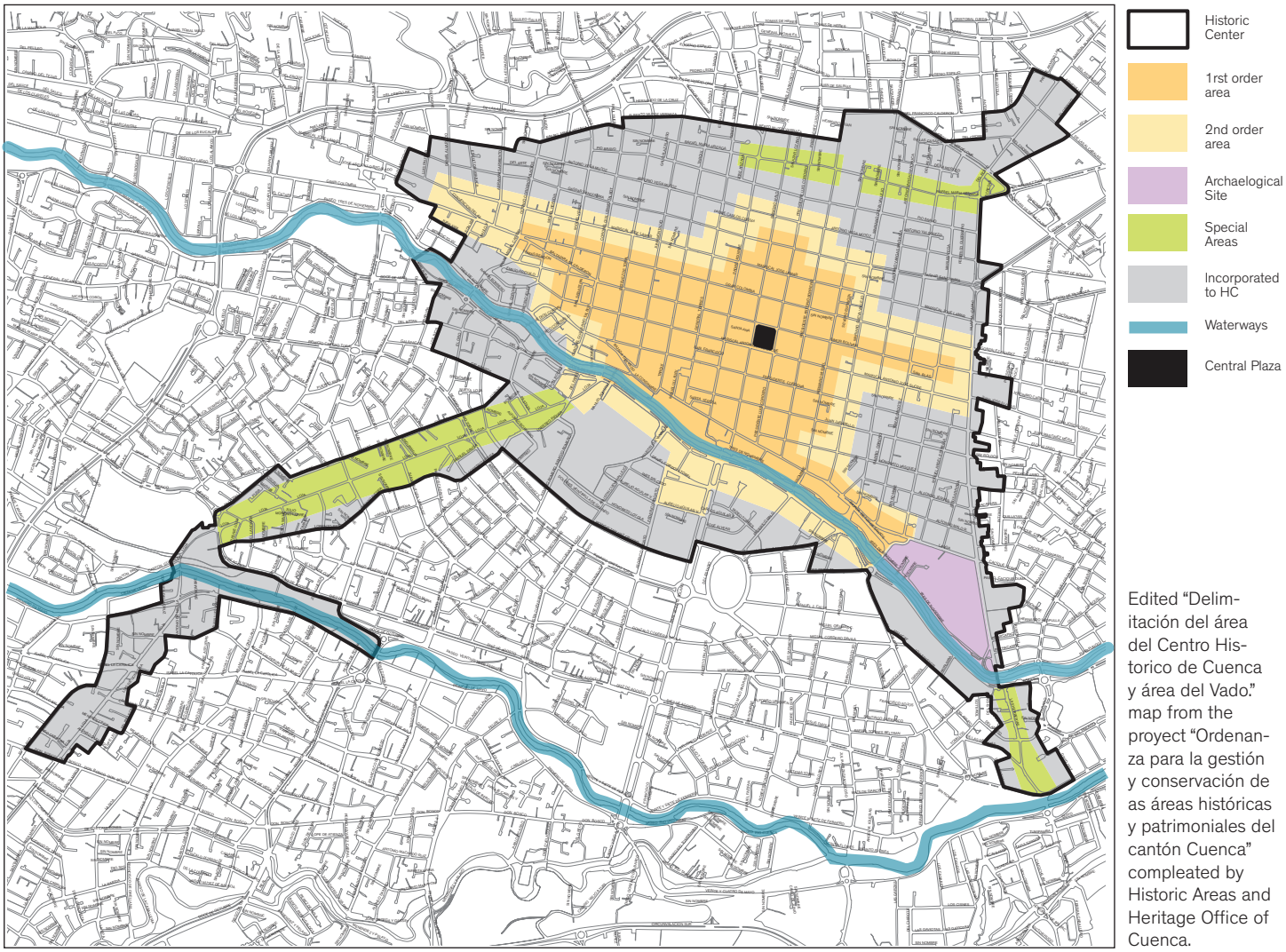

2

Urban Development and Morphology

The development history of Cuenca is composed of four cultural layers: the Cañaris and Incas, the Spanish, the Republican, and the Modern. The Cañaris, were established adjacent to a waterway in a valley.[2] This town, named Pumapungo, was eventually conquered by the Incas, and became a center for military, administrative and religious purposes of this culture. In 1557 Cuenca became a Spanish colony and was renamed "Santa Ana de los Ríos de Cuenca". The town was planned according to the Laws of Indies, centered on a main square within specified limits, from which straight streets are built in a rectilinear grid.[3]


3

In 1820, when Ecuador became a Republic, the city began to grow outward beginning at Central Plaza and stopped at the natural boundary, the rivers and mountains. On the 100-year anniversary of the Republic of Ecuador, and during the construction of the Panama Canal, Cuenca began one of their major productive activities: the confection of straw hats, more



Edited "Delimitación del área del Centro Historico de Cuenca y área del Vado." map from the proyect "Ordenanza para la gestión y conservación de as áreas históricas y patrimoniales del cantón Cuenca" compleated by Historic Areas and Heritage Office of Cuenca.

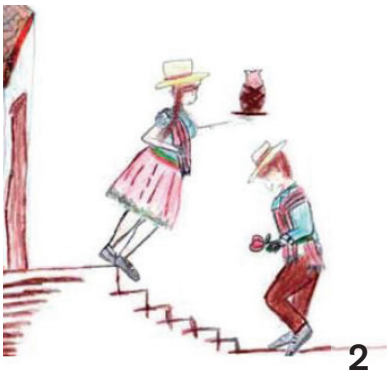
commonly known as Panama Hats. This spurred a period of economic success for the city, resulting in a population boom and the adoption of a new French style architecture, labeled as modern architecture.4 As years passed and the population continued to grow the historic center densified, and the car took over the streets—creating a less secure and less accessible city. Residents began to move out of the city, to its outskirts, in search of a better quality of life: suburbanization. The geography and hydrology of this mid-sized city define the limits of the old city development and create a distinct separation between the old and the modern. "The Barranco" and the Tomebamba River separate two areas in a city that have completely different characters, and urban planning.

Urban development has brought with it several issues regarding the sustainability, accessibility, economics, and health of the historic center, that can only be repaired with the combined efforts of urban regeneration and the heritage preservation.

EXISTING WORK: CUENCA

As preparation for this report, we examined existing methodologies for assessing conditions of historic centers in mid-size cities, using Cuenca as our case study. In Cuenca, existing research and reports conducted by the municipality, the University of Cuenca (including the Historic Urban Landscape study), and the national government reveal a variety of methodologies for identifying and assessing stakeholders, heritage assets, and urban issues. Tactics which include a wide variety of stakeholders and assess a multitude of issues and heritage values should be models for other cities to follow. The implementation of such diverse and thorough methodologies is crucial for insuring equity and revealing the most pressing urban issues being faced in historic city centers. `

	STAKEHOLDERS
HISTORIC URBAN LANDSCAPE STUDY	Experts: ecologists, biologists, anthropologists, geologists, archaeologists, economists, heritage experts Citizens
CUENCA RED	Experts: ecologists, biologists, anthropologists, geologists, archaeologists, economists, heritage experts Citizens
UNIVERSIDAD DE CUENCA	Academic Institutional/legal Civil/community
NATION OF ECUADOR	Citizens Local gov Landowners



METHODS	DATA COLLECTED	DATA EXTRACTED
Interdisciplinary outreach to experts Community outreach	Heritage value assessment Condition Assessment Community workshops Mapping data	Expert evaluation Community perception Identified areas for potential intervention
Survey of historic landmarks Interviews Observation Monitoring use of public space	demographics + density transit criminal activity existing regulations	Issues needing improvement Potential for reuse/suitable uses Priorities for intervention in public space
Mapping possible actors to see relationships between them Looking at different demographics present in an area	Condition + uses Economic activity Code Infractions Vacancies, economic trends	Threats to heritage Urban contexts and trends Social divisions Community needs Relationships between problems Connections between assets and quality of life
Survey of historic landmarks Recognition Expert Analysis	National survey/heritage list Prominent features in viewsheds Densities Land use	Landmarks Visible heritage Urban contexts and trends Housing affordability, urban growth

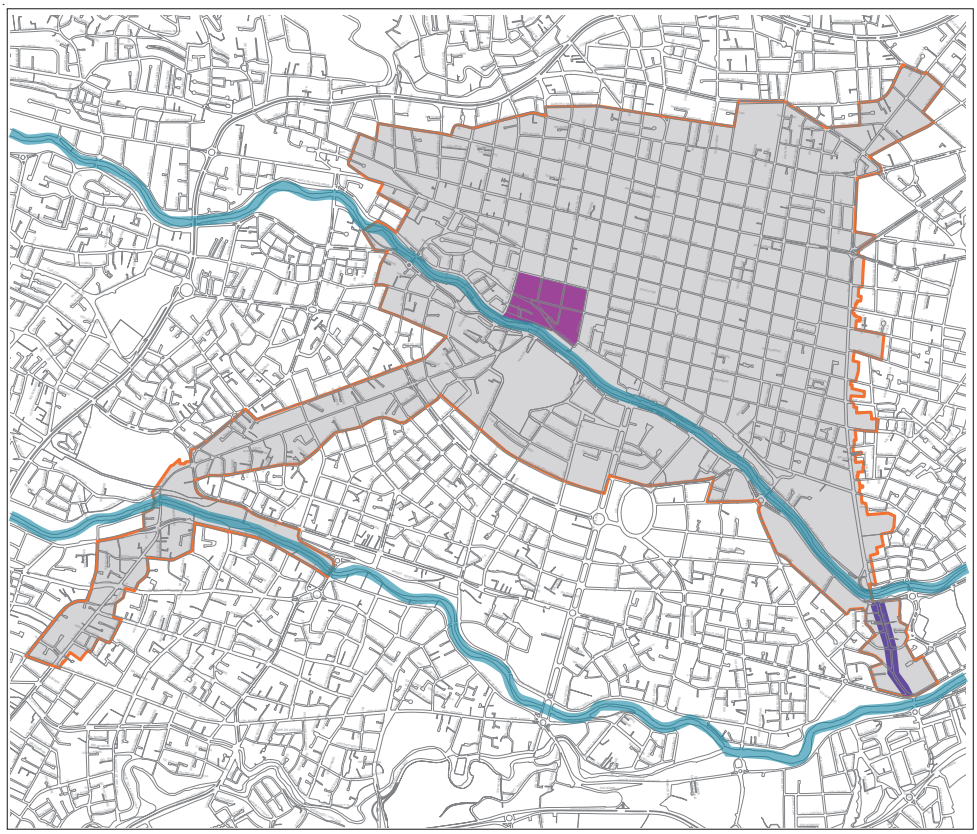
1. Children's drawing used to assess heritage values. (Source: "The Application of the Recommendation on Historic Urban Landscape (HUL) in Cuenca - Ecuador. A New Approach to Cultural and Natural Heritage," (Universidad de Cuenca, 2017), 109).
2: Mapping open space in Cuenca. (Source: "Cuenca Red Vol. 2," (GAD Municipal Cuenca and BID), 18).
3. Children's drawing. (Source: HUL in Cuenca, 109).

FIELDWORK

OUR TIME IN CUENCA

After weeks studying the way in which contemporary development interventions can be managed in conjunction with heritage conservation practices, we travelled to Cuenca, Ecuador for the purpose of understanding these relationships within the Ecuadorian context.

In Cuenca we met with government officials, heritage professionals, and the University of Cuenca's faculty and students in order to gain an in depth understanding of the challenges and issues facing heritage conservation within the city, as identified by Cuecanos. We were presented with the background and history of Cuenca as well as addition information on the city's most recent studies (the Historic Urban Landscape (HUL), Cuenca Red, MIDUVI); this provided us with an essential foundation, on which to build upon with our own field work.



Edited "Delimitación del área del Centro Historico de Cuenca y área del Vado." map from the proyect "Ordenanza para la gestión y conservación de as áreas históricas y patrimoniales del cantón Cuenca" compleated by Historic Areas and Heritage Office of Cuenca.

Two neighborhoods were identified as sites for our experience-based examination: El Vado and Herrerías. Both communities serve as historic entrances to the city of Cuenca—El Vado to the southwest, Herrerías to the southeast—and were chosen for their ability to highlight typical heritage issues facing Ecuadorian mid-sized cities. Although they present different heritage conditions we identified five categories of examination and intervention that are applicable for any mid-sized city looking to apply advanced urban heritage conservation practices: Intangible Heritage, the Economy, Building Stock, Open Spaces + Environment, and Mobility.

The results of the preparatory work and data collected from our field visits guide the conclusions and recommendations presented in this report.

1. People selling produce in the a market. (Photo: Meredith Johnson)
2. Bread making in a typical colonial oven house. (Photo: Meredith Johnson)
3. Plazoleta Cruz del Vado. (Photo: Dorcas Corchado)
4. Blacksmith studio and shop in Herrerías Avenue. (Photo: Meredith Johnson)
5. Nature vs. Built Environment. View of the city with natural Landscape in the background. (Photo: Dorcas Corchado)
6. Plaza del Herrero (Photo: Dorcas Corchado)
7. Typical Republican multiuse building. Commercial floor appears to be vacant. (Photo: Yue Wu)
8. Display of transcient commerce in public space. (Photo: Yue Wu)
9. Traffic at Cuenca's Southwestern entrance. View from east toward Avenida Tres de Noviembre. (Photo: Shuxin Wu)

PART 01:
CUENCA AND THE NEW URBAN AGENDA

THE NEW URBAN AGENDA

Based on in-depth analyses of Cuenca, our primary case study for the Ecuadorian context, we recommend focusing on five key areas for a heritage conservation approach that balances preservation with sustainable development: the economy, building stock, open space + environment, mobility, and intangibles. These aspects all exist within the historic city center and connect to the current culture, history, and experience of Ecuadorian heritage; however, just as importantly, each of these heritage aspects also contributes to an overall quality of life and are often assessed as measures of a city's well-being. Thus, these aspects of heritage are most likely to contribute to social and economic development in historic centers.

The New Urban Agenda (NUA), of which Ecuador is a signatory, provides a frame work for assessing the contributions of these heritage elements to aspects of social and economic development. The agreement promotes the building of a better urban future by integrating a wide variety of issues and initiatives which recognize that the modern challenge to all civilizations is to promote equitable and sustainable societies. We identified eight goals of the NUA that we feel are most connected to current urban development and heritage conservation issues being faced by mid-size cities in Ecuador. The matrix to the right maps the connections between these NUA goals and the previously discussed key heritage areas.

In the following sections, we will explore each of these themes in more detail and discuss their connections to social and economic development. We must stop thinking of urban development and heritage conservation as separate entities. Any intervention that works to create sustainable, equitable, and livable cities can and should be harnessed to achieve these ends through preservation means. The conservation of the build environment is important, but for too long the value of tangible heritage assets have been prioritized over the more abstract notion of the wellbeing of cultural centers – intangible heritage assets. By re-framing heritage conservation to fit more broadly within the goals of the NUA we hope to illustrate that it is the richness of an interconnected city, of a healthy city, of a living city that contributes to successful preservation.

Provide basic services for all citizens

Ensure that all citizens have equal access to opportunities

Promote measures that support cleaner cities, take action to address climate change

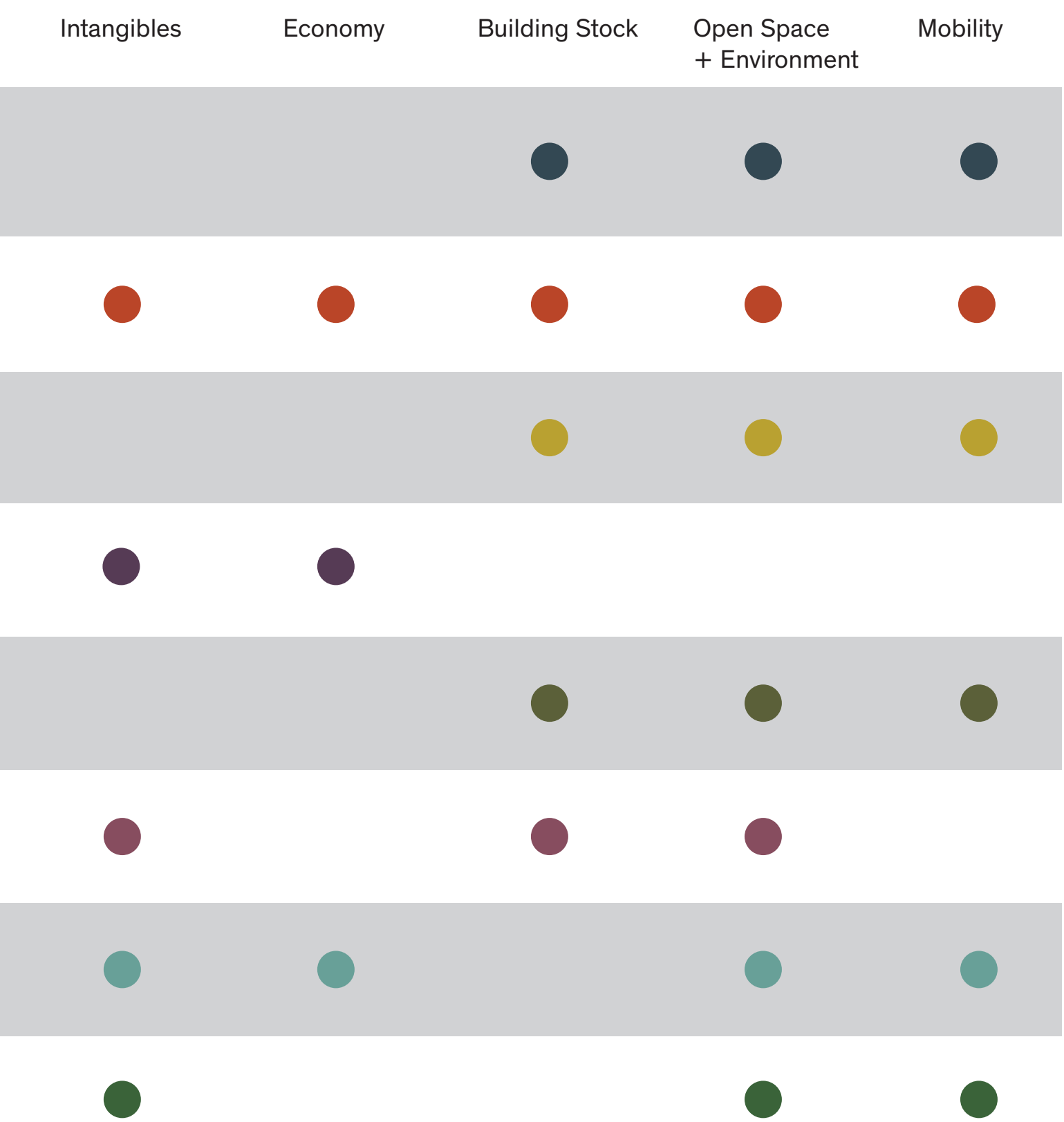
Create sustainable and inclusive economies

Foster inclusive regeneration and development of existing urban areas

Recognize and protect cultural heritage assets as vital components of sustainable urban development

Improve connectivity and support innovation

Promote safe, accessible and green public spaces


Intangibles
Economy
Building Stock
Open Space + Environment
Mobility

INTANGIBLES

The buildings and tangible spaces in a city are given purpose and meaning through the individuals who interact with them. These interactions, and the knowledge and feelings expressed and experienced within these realms, make up the intangible assets. The intangibles are what make viable the development, sustainability, and livability of a city, and without them a city becomes flat. The intangibles are foundational in shaping the social and cultural experiences in both public and private spaces and influential in forming the memories and identities of the people. This notion extends beyond the formal definition of "intangible cultural heritage" that is provided by UNESCO, also including the sounds, symbols, and smells, etc. of a city, which help to augment the health and happiness of the people.[1]

It is people - residents, shop owners, pedestrians, and commuters - that create these valuable intangible assets, and the productivity of an area is invariably linked with the livelihood of these participants. Understanding what the intangible assets are, where

Intangibles & Economy

Intangibles, including the traditional food, drink, and crafts of a region, extend to the economic activities happening in the built environment. These include people buying goods from shops, shop owners cooperating with other local vendors, the presence of live music and activities, etc. which create a rich atmosphere for production and a source for profit. The economic viability of traditional craftsmanship, and of the intangibles that it encapsulates, is closely linked to its adaptability in the modern era. The conservation of intangibles is therefore significant for its contribution to the economic development of the city.

Intangibles & Building Stock

Buildings determine how intangibles can be presented, whether through their association value or their physical form. Buildings have the capacity to host micro-histories in resident's lives, and contribute to the relational structures between neighbors, families, and local commerce. Mutually, intangibles shape the characteristics of buildings by adding socio-cultural and economic values to the buildings. These historic and cultural buildings of a city are symbols of durability and resilience that produce a sense of pride and security for a city.

Figure 1: Blacksmith doing business with customers in the neighborhood of Herrerias, Cuenca, Ecuador. (Photo: Ran Wei)
Figure 2: Residential (right) and commercial (left) buildings in the neighborhood of Herrerias, Cuenca, Ecuador. (Photo: Ran Wei)

they function, and who their participants are, helps us to connect and contextualize the layered values of a place. Because the intangibles are a major contributing factor in shaping the defining characteristics of an area, only by preserving them can we avoid alienating those most likely to use and benefit from a spaces development. Therefore, community members are a primary source of knowledge when creating methods of preservation, and are the most affected by the survival or neglect of the intangible assets.

The connections between these intangible assets and their participants are what makes preserving the tangible heritage of a city important and worthwhile. An evaluation of the intangible assets and their participants will help judge the positive and negative impacts that these interactions have, as well as identifying invasivе qualities that are creeping into valuable spaces negatively affecting their integrity and health and those of the people who enjoy them.

Intangibles & Open Spaces

Open spaces create an area for all members of the community to interact, and provide different opportunities for intangibles to participate in people's lives. It is in these areas that varied forms of public events take place, such as festivals, games, and markets. They are also meeting points for friends, safe spaces to relax, and places where people sit to observe their city. These areas help to form people's perception and memory of their neighborhood, and attract people to visit, learn and interpret the heritage and history of the area.

Intangibles & Mobility

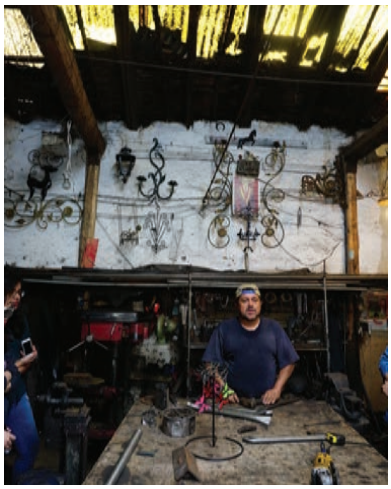
Streets can be interruptive and negative for intangibles due to the flow of automobiles, and the noise and air pollution. Pedestrian-friendly streets, on the other hand, can provide more potential for intangibles to thrive. As a consequence, the conservation of intangibles takes into consideration the flow of traffic and pedestrian walk-ways. In many places worldwide, street art is considered a valuable addition that makes an area more attractive and viable by adding local characteristics. It also provides local artists an arena to express the beliefs, politics, and interests reflective of the community.

Figure 3: Students finishing tour and walking out of the museum in the neighborhood of Herrerias, Cuenca, Ecuador. (Photo: Ran Wei)
Figure 4: Crossroad with bustling traffic in the neighborhood of Herrerias, Cuenca, Ecuador. (Photo: Ran Wei)

ECONOMICS

Business serving for resident's' daily needs

Housing in the city center



Local craft business - ironwork shop and the blacksmith

In historic cities, heritage preservation plays an important role in both the economic development process and in achieving goals of sustainability and equity. Verifying the economic health of a community is a vital step in analyzing a community. The task itself can be daunting when examining a historic center or neighborhood because of the additional complexity that comes with historic management and sensitive memories. We have tried to make the economic analysis step more tangible by breaking down medium-sized historic centers into four economic categories: General Commercial Activity, Heritage Commercial Activity, Real Estate, and Tourism. These categories often rely on each other, as they are all essential for a historic center to thrive—now and in the future.

COMMERCIAL ACTIVITY

Studying the general commercial activity will help to assess the overall economic health of the community. The general commercial activity should serve the local community, including residence and other businesses, and might draw in users from around the city. A healthy, sustainable community will have its immediate needs met by nearby general commercial activity as this provides residences with staple food items and common household needs. Other general commercial activity includes restaurants, global retail, or offices, all of which serve the local community, the employees of the businesses, and visitors. Ideally the commercial activity will also provide jobs for the local community.

HERITAGE COMMERCIAL ACTIVITY

Heritage Commercial Activity differs from General Commercial Activity in that it is unique to the place in which it is located. This uniqueness might be derived from the city or region or even county, but ideally the Heritage Commercial Activity would tie into the intangibles of the place. Heritage Commercial Activity manifests itself in two ways: original heritage activities and boutique heritage activities. Original heritage activities are businesses that have either been in place for a long time and use a traditional method to develop a heritage item or are businesses that use traditional methods for developing a traditional or heritage item. Boutique heritage activities are businesses that sell goods specifically for tourist consumption. Heritage Commercial Activity might contribute to a community or stand on its own.

1. Photo by Katie Levesque
2. Photo by Katie Levesque
3. Photo by Meredith Johnson

Street Market serving for both residents and tourists

Heritage Commercial Activity – Panama hat

Informal business

REAL ESTATE

The historic building stock in an historic city center provides opportunities to strategically develop housing that serves the needs of a diverse group of citizens. A thriving real estate market is beneficial for the local economy; to revitalize the city center, attracting new comers is necessary. Historic houses are compelling assets that can be used to draw people to the city center for residential and commercial purposes. At the same time, housing affordability is a serious concern for urban communities. Rehabilitating historic houses is an economical, sustainable, and equitable way to provide affordable housing that fosters inclusive regeneration and development of existing urban areas.

TOURISM

Historic cities rich history, special cultural traditions, and unique urban landscape are valuable attractions for visitors. Tourism, another important economic activity, has a significant presence in the historic city center; hotels and souvenir shops can be found along most major streets. The industry has without doubt created jobs and increased foreign capital, but, like any other economic activity, tourism must be managed. There are numerous examples where poorly-managed tourism dominates historic cities, displacing local communities and damaging aspects of a cities intangible heritage. An infamous case is Venice, where much of the social and cultural values have been lost during the displacement of local community. Cuenca, on the other hand, has shown good examples where tourism supports local traditional crafts, such as ironwork and hat making. In these cases, tourism is one of the means instead of the end. With responsible planning and management, cultural heritage tourism can contribute to sustainable urban development.

The economics of a place are just one element that should be considered during this type of analysis. The historic significance of the area should be at the forefront of everyone's mind when examining the development and sustainability of historic districts. It should be noted that tourism is the last consideration in such analysis; these plans are, first and foremost, designed for the residents of a given city. The economic prosperity of historic city centers directly relates to the goals of the New Urban Agenda and thus supports heritage conservation. Such an approach prioritizes equal opportunities for all citizens, sustainable construction practices, and improved connectivity and innovation throughout the city.

4. Photo by Meredith Johnson
5. Photo by Yue Wu
6. Photo by Yue Wu

BUILDING STOCK

Historic Building Stock

Integrity

Utilization

HISTORIC BUILDINGS AND URBAN DEVELOPMENT

Building stock represents a large portion of the heritage resources in a city. The use of development of the building stock, the historic and new together, provides great opportunity for a city to integrate heritage resources into the urban development process. Building stock is also directly related to the quality of life in the city and sense of community cohesion:

/ better and more efficient **utilization of building stock** in historic city center
/ improve the **quality of life** in the city
/ achieve **New Urban Agenda** goals

ISSUES

Integrity + Utilization

INTEGRITY

The issue of integrity arises from the field observation - there are visible conflicts between contemporary intervention based on practical reasons of more efficient uses of the building and the architectural, historical, and aesthetic values which somehow hindering the former process. This often leads to insensitive new construction/informal intervention by residents, which lack of coordination and notion of integrity. In addition, the interpretation and application of local and traditional materials and construction remains at a superficial level, which tries to restore a style of historical architecture representing a significant period of time. Lastly, integrity also has to do with how to manage adaptive reuse while not losing the unique characteristics of a historic area:

/ informal interventions
/ lack of evaluation of changes
/ interpretation of local and traditional materials and construction
/ lack of evaluation allowing for assessment of non-colonial or republican era buildings
/ value categories that reflect desired goals for the future
/ move from evaluation to manage change

Image 1, 2 Source: Shuxin Wu, 2018 Image 3 Source: Xiaolin Chen, 2018

Builging Without Sufficient Utilization

Local Spatial Division Strateies In Historic Buildigns

Vacant Building Due to Low Construction Capacity

Along with the development of society is the increased migration in urban area, which greatly contributes to the housing diversity and building obsolescence in historic buildings. To meet the demand of multiple functions, and diverse physical space requirement, historic buildings are adjusted in function, physic form, and economic models. Even if mix-use building is the most preferred method for rehabilitation, there are still some issues to be solved considering improving life quality.

ISSUE I: OVERUSE

The diversity of immigration in urban area greatly caused the mismatch between residents' use of building and the capacity of the buildings. Residents are overusing the historic buildings to benefit their own need. Also the overusing to some extent also decline the quality of life in the neighborhood. Overusing from tenants makes historic buildings too chaotic to preserve and manage.

ISSUE II: INSUFFICIENT UTILIZATION

Most historic buildings are facing the severe problem of insufficient utilization. The first problem is that some buildings only have the ground floor open for commercial use, while the upper floor that assumed for residential use is vacant owing to poor condition, high rents or unavailable bypass for different circulation. The other problem is that the upper floor is used as hotel instead of residential space, does not solve the pressure in housing, let along to improve the quality of life. On one hand, spatial division is effective to improve the utilization rate of historic buildings providing multiple functions in a single site; on the other hand, spatial division leads to the lack of integrity and consistency in adaptive reuse projections.

ISSUE III: CONSTRUCTION CAPACITY

The construction capacity of historic buildings are diverse considering different architectural styles, historic and cultural values and socio values, which is also reflected by the preference in private investment. The ownership and tenants work together and make the problem more complicate in large scale buildings, and lower the possibility in multiple utilization. The improvement of neighborhood calls for care from both property owner and tenants to solve the physical obsolescence in future adaptive reuse. Regulated tenants are required to decrease the living pressure in historic residential buildings and manage historic buildings in a more sustainable way.

Image 1, 2, 3 Source: Xiaolin Chen, 2018

OPEN SPACES + ENVIRONMENT

The New Urban Agenda aims to build a better urban future by making cities inclusive, safe, resilient, and sustainable. The creation and maintenance of open spaces within cities is essential to realizing these goals, it thus follows that the creation and maintenance of open spaces within cities is also essential for heritage conservation. Open spaces promote sustainability, prosperity, and health through their ability to support social connections, function as community nodes, and positively impact the health of citizens and their environments. These attributes undeniably aid in the preservation of heritage, both tangible and intangible, within historic city centers.

Public open spaces are valuable connectors that can bringing together diverse communities through festivals, economic activity, relaxation and recreation, and environmental improvements, all of which foster a more accessible and equitable city through the promotion of social and economic prosperity. This prosperity supports the preservation of a city's unique character—its soul or intangible heritage—and when the soul of a city is thriving, this success can often be harnesses to support the preservation of a community's tangible heritage assets as well. For example, well designed, well used community spaces often activate and grow commercial activity (in both formal and informal sectors of the economy) which in

1. The iron workers' plaza in the Cuenca neighborhood of Herrerías is an example of a necessary open space that has yet to reach its full potential. (Photo: Dorcas Corchado)

turn brings a level of stability to a community. When properly managed, this stability attracts investments and improvements that contribute to the overall maintenance and conservation of the physical space.

In addition to important traditions and architectural landmarks, Ecuador possesses rich environmental and natural assets that are highly valued by the country's citizens. We are advocating for new ways in which to integrate this natural heritage into the fabric of the city; green spaces, a valuable category of open space, are essential not only for the prosperity of Ecuador's cities and citizens, but for the prosperity of its heritage and culture as well. Green spaces promote walking and biking as sustainable modes of transportation, which in addition to providing health benefits to citizens, work to reduce harmful environmental pollutants and urban congestion that negatively impact the historic architecture of a city. Open spaces can also be tools employed to preserve viewsheds of valuable built and natural heritage assets.

While our preservation efforts focus on historic city centers, we must acknowledge that this is one small section of an interconnected, regional ecosystem. If we cannot support healthy, thriving communities, efforts to conserve built heritage will be in vain.

2. Las Cajas National Park, which sits just outside Cuenca is a valued heritage asset for the city. It houses a portion of the Inca Trail, provides fresh water for the city, and its mountains serve as sacred landmarks. (Photo: Katie Levesque)

MOBILITY

The street is the river of life, the place where we come together, the pathway to the center. -- William H. Whyte

Mobility within a city is one of the most crucial aspects of urban life. Thinking about streets as one of the first steps towards creating a sustainable urban development plan is imperative for a successful city. Currently, streets are merely regarded as connectors, taking us from one destination to another; however, before the introduction of automobiles, streets were places where the social aspect of a community thrived, where children played, and conversations took place. Today this has shifted, streets serve a more pragmatic role than cultural role. It is imperative to reclaim our streets as evocative places that are not accepted as the domains of cars but harnessed as powerful public spaces.

A street serves multitude purposes in the public realm; it is the platform where the community life of a neighborhood unfolds. It is the corridor of movement where we meet, walk, observe, and sometimes sit. It is on the street that you acquaint yourself with a place. The activities of a street help you to understand the complex layers of the city. It is one of the most experience-enriched places in a city. Unfortunately, because of our dependency on automobiles, the ownership of our streets has been conceded to the car, making it an inhospitable, even dangerous, space for pedestrians.

Worldwide, Ecuador included, cities struggle with this loss of sense of place, especially in their historic districts. Areas primarily designed for foot-driven traffic, are now domains of honks and trailing smoke from speeding cars. This has pushed pedestrians to the fringes of the street and eliminated the opportunity to experience the offerings of a historic center. Reclaiming streets in a historic district is one of the greatest challenges of sustainable development, as there is limited space for interventions and little room for drastic changes. This negatively impacts the residents and tourists in that area. Areas that are not built for cars are redesigned for vehicular accommodation, causing drastic changes to the built environment.

1. Pedestrian ways make space for parking. Photo: (Yuexian Huang)
2. A car parking on a sidewalk. (Photo: Yuexian Huang)
3. Some pedestrian ways end abruptly in the middle of the street. (Photo: Yuexian Huang)

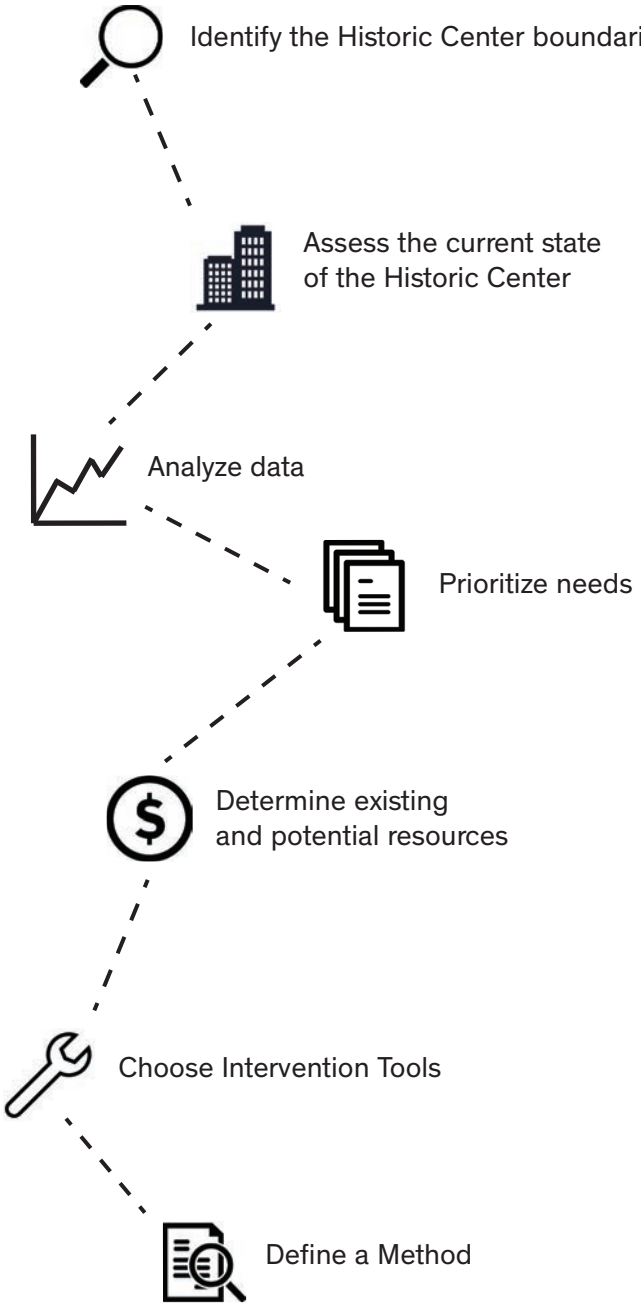
Tackling the issue of mobility in historic districts is important because without this connection, everything else will not be able to thrive. A successful street is one where every user feels safe and has accessibility. One function should not overshadow the other and should cater to the diverse needs of its users. It should relate to its immediate context, to create a positive image and to add to the character while fulfilling its fundamental function. It is crucial to start reframing streets as places that not only mobilize masses, but also provide them with a multi-sensory experience to fully appreciate the unique characters of historic centers.

4.

PART 02:
ADDRESSING PRESERVATION ISSUES IN MID-SIZE CITIES

GUIDE TO IMPLEMENTATION

The rest of this report will focus on tools for using heritage to foster social and economic development. We start at the macro level with a Guide for Implementation, spanning from existing conditions to interventions, which mid-size cities can follow. The Guide also knits together the various topics covered in this report. Steps one through three, essentially a health-check for historic centers, build on the techniques for identifying stakeholders and heritage assets discussed on pages 5 and 6. They also include assessment tools for specific issues discussed in the following pages. Steps four and five prioritize issues of concern in historic centers; we have summarized seven issues which mid-size cities might face based on this assessment on pages 29 and 30. Finally, steps six and seven identify interventions to address these issues. We explore several possible interventions for each sample issue in this section.



Step 1
Identify the Historic Center

a) What are the official and unofficial boundaries?
b) What are the demographics in the Historic Center?
c) What are the businesses in the Historic Center?

Step 2
Assess the current state of the Historic Center

a) Physical condition of the buildings, and built environment
b) State of the community
d) Economic viabillity of the Historic Center

Step 3
Analyze data

a) What does my community find most valuable?
b) What does my community dislike/want to change?

Step 4
Prioritize needs

a) What issue came up most frequently?
b) What are the restraints to addressing the issues?

Step 5
Determine existing and potential resources

a) Existing funds
b) Grants, incentive programs
c) Unexpected partnerships

Step 6
Choose Intervention Tools

a) Should be appropriate for identified resources, constraints, and needs

Step 7
Define a method

a) Timeline
b) Checkpoints
c) Definitive metrics of success

IMPLEMENTATION CASE STUDY: CUENCA

We have applied the Implementation Guide to Cuenca to demonstrate how a city might assess their Historic Center when following Guide. Cuenca stands out becuase the Municipality and the local university have both conducted studies about the Historic Center. Other cities may need to generate more new data in order to complete the Guide.

Identify the Historic Center boundaries

Cuenca mapped the hard borders of their historic center as they applied for World Heritage status. This data can be found in hard-copy books, such as the University of Cuenca's study of the Historic Urban Landscape, or digitally as an ArcGIS map. The Municipality of Cuenca took the mapping a step further in the Cuenca Red master plan study. In this study they examined the location of heritage sites and their adjacency to city functions, such as parking lots, places of business, and major thoroughfares. The city conducted community surveys that confirmed the borders and collected housing and business data by walking the streets of the City.

Assess the current state of the Historic Center

Through the University's walking surveys, the City was able to collect data on the Historic Center's physical state. The City and the University conducted public visioning meetings that were used to assess citizens' view of the Historic Center. Throughout these studies, Cuenca found that native Cuencanians were getting pushed out of the historic space, which was seen as a threat to the authenticity of the heritage presented in the Historic Center. In the end, residents of the Historic Center and adjacent areas expressed interest in moving forward with preservation efforts. Local support is always necessary in planning and preservation efforts.

Analyze data

Most of the data analyzation occurred in the Cuenca Red document because it is essentially a master plan. Data analysis will look different for every city, but will likely confirm professional opinions of the issues within the Historic Center. However, it is important to examine the data collected from first two steps in case unforeseen issues arise and to translate the data into a format that is easily understood by the citizens. For example, in Cuenca Red, the data was graphically displayed so anyone could understand it. The phase maps could be easily used by professionals and laymen. In the HUL study, survey data was placed into simple charts that could be understood by anyone.

Prioritize needs

The survey data presented in the HUL graphically displays issues, the frequency at which they arise, and who mentions the issue. Professionals can use this to confirm their own suspicions about the issues within the Historic Center, and to help the locals take ownership over finding solutions to the issues they identified. In this case, the HUL and Cuenca Red did not identify issues that the community did not voice, which is to be expected. The issues with the most support will likely be the issues voiced by the majority of the population. Additionally, neither of the documents mentioned restraints. This is to be expected because both documents primarily for visioning and data synthesis. It is likely that the Municipality of Cuenca already knows their restraints.

Determine existing
and potential resources

The Municipality of Cuenca likely discussed financial resource identification, such as grants, loans, and pro-bono opportunities, but the information was not distributed to us. Many of the partnerships that the Municipality of Cuenca utilized was made apparent, however, by reading through the provided documentation. For example, to complete Cuenca Red, the Municipality partnered with multiple universities, the EU, and several individual collaborators. Other potential resources might exist in public/private partnerships with developer or service agencies, national or international grant programs, or other cities with similar goals within a defined region.

Choose Intervention Tools

Intervention tools are completely scalable based on the data, needs, and resources determined in previous steps. In Cuenca Red, the Municipality determined that design interventions would be the appropriate tool to address their defined needs. Other tool suggestions can be found in the sections and case studies later in this document.

Define a Method

Once a tool is selected, a method for implementation must be developed. The method should include a reasonable timeline, checkpoints, and specific metrics of success. For example, in the design interventions prescribed by Cuenca Red, the Municipality defined project phases with a specific goal for eac. Phase one is focused on opening and activating the defined spaces through construction and design. Phase two is centered around long range rehabilitation and intervention efforts, which involves bringing people in to use the spaces. Ultimately the Municipality will know that the efforts are working if people are using the newly designed spaces, but to get there the Municipality will need to hone in on the needs that the spaces could fulfill for the communities, which would be done through checkpoints throughout the design and development process. Essentially the checkpoints and the defined metrics of success ensure that the project does not

ISSUES & TOOLS

After performing our own health check for the city of Cuenca, we identified seven key issues to explore further. We chose these seven issues for two primary reasons. First, each is central to achieving New Urban Agenda goals in Ecuador. Commercial sustainability, for instance, is essential to the goals of economic inclusivity and sustainability. If small businesses are not able to compete, then the families that own them are potentially deprived of livelihoods. Each issue is currently posing a problem in Ecuador.

The second reason we have chosen these seven issues is because they all connect well to the heritage assets discussed in section one. We can see these connections again using commercial sustainability as an example. Protecting economic heritage – including businesses, trades, crafts, and markets – and ensuring that this heritage is sustainable into the future protects the livelihoods of citizens. Thus, protecting the heritage helps address the key issue and moves towards achieving the New Urban Agenda goals of inclusive and sustainable economies.

We have purposefully chosen fairly broad categories of issues to ensure that they will be applicable across all mid-size cities in Ecuador. The specifics of each issue may vary from city to city; in Cuenca, the most significant contributor to commercial diversity problems is threats to local trades and crafts; in Quito, until recently, it was lack of management of public markets. We have discussed a few permutations of each issue, but there may be different versions existing in other cities which we do not discuss here.

For each issue, we have explored several actions cities can take, both to assess the state of the issue and to intervene and address it. These interventions arise from case studies across the globe, which we also discuss in each section.

Car Dominated Districts

Housing Diversity

Commercial Diversity

Ownership of Public Spaces

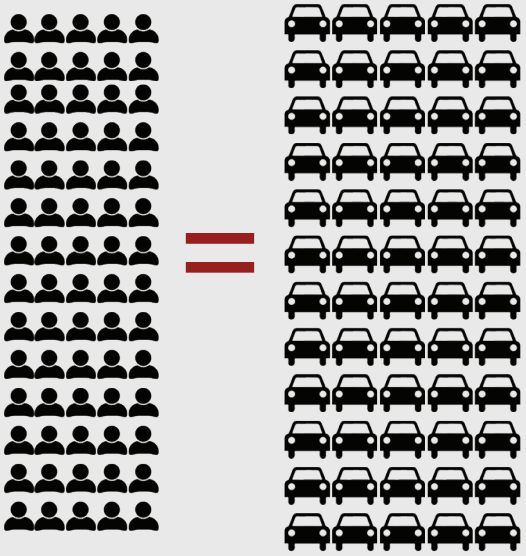
Building Obsolescence

Insensitive Construction

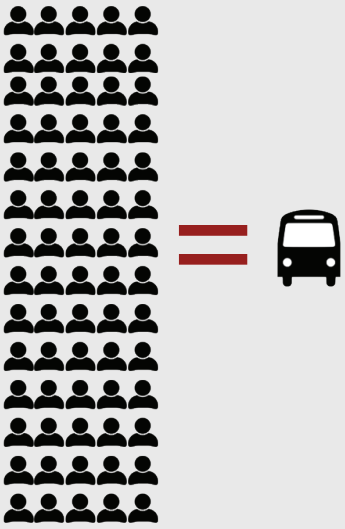
Missing Green Space

Summary of Issue	Contributing Factors	Issues Preventing Action	Possible Interventions
Pedestrian oriented streets have become car dominated spaces	Ease of commute Status symbol Ineffective alternative transit	Cost and space prohibitive Convenience of personal transport Urban Sprawl	A well integrated public transit network Pedestrian prioritized streets Reduced parking spaces
Housing stock does not match the needs of the populous	Noncompliant intervention Affordability Shifts in occupancy	Lack of efficient policy Inadequate policy enforcement Deficient private investment	Adaptive reuse ordinances Housing policy Public-private partnerships
Locally-owned businesses, including traditional crafts, struggle to remain economically viable	Change of lifestyle Change in technology Increasing tourism	Faith in local politics Profitability	Expand market for local crafts Policy to support affordability for local businesses Public market management
Current public spaces are unable to meet everyone's needs	Insufficient accessibility and sustainability Underutilization and safety of public space Under-representation of local context	Lack of community engagement Conflicting needs Lack of supporting activities and facilities	Community involvement Integrated design/planning
Economic, physical, and functional devaluation of property	Loss of utility Value of land exceeding the value of the building Vacancy	Cost prohibitive Poor building condition Inability to comply with regulations	Adaptive Reuse Preventative planning and maintenance Designation
challenge of preserving valuable characteristics in the process of contemporary development	Informal intervention Inadequate regulation of Land Use Contemporary demands	Profitability Scale	Design Guidelines Building and use regulation in historic districts
Un-greening the city, either intentionally or as an unintended consequence	Increased development Not prioritizing existing green spaces	High need for development Prioritization of parking Cost prohibitive	Policies that require new vegetation and maintenance Reestablish historic green spaces

CAR DOMINATED DISTRICTS



It takes **60 cars** to carry 75 people



It takes **1 bus** to carry 75 people

Car as a mode of transport occupies more space compared to a bus, train or bicycle. Travelling by car to home or work consumes 90 times more space than if the same journey was taken by bus or tram.

1

In the past fifty-years, cities across the globe have recognized the need to reduce motor activity in their city centers. This shift has occurred despite, and as a result of, an increase in societal car-dependency. In historic centers, this shift has transformed traditionally pedestrian oriented streets into car dominated spaces. As a result, streets have become incrementally less safe for pedestrians and cyclists. Additionally, traffic-congestion contributes to lower air quality and noise pollution. These negatively affect the quality of life for residents, distracts from business visibility, and is not a sustainable condition for future generations.

The issues, and workable solutions, for reducing motor traffic in historic centers are addressed through possible interventions. These interventions include:

- Reducing car accessibility to strategic routes in the historic center
- A "single-platform" approach that uses symbolic demarcations in streets that will signal drivers they are enter pedestrian zones
- Adopting sustainable public transportation

The case studies presented here highlight approaches for installing plans to create sustainable transportation. These successful examples were not without difficulties, but through prioritizing their vision for sustainable transportation the city and people benefitted. There are many creative approaches that urban planners can implement to create pedestrian friendly streets in their heritage areas. These case studies exemplify the various methods that can be used when planning for alternative transportation in Ecuador and are valuable references for overcoming obstacles that prevent positive change.

The aim of this intervention is "Traffic Evaporation" – a concept about reducing traffic by limiting the space provided for vehicles and introducing alternate modes of transportation. There is a growing body of publications proving how well measured traffic strategies can result in improved street life quality and ease of mobility and accessibility. Reports commissioned by UK Department for Environment, Transport and the Regions consists of notable evidences regarding success of "traffic evaporation". [1]

1. Source: European Commission Directorate-General for the Environment, *Reclaiming City Streets for People: Chaos or Quality of Life?* (Office for Official Publications of the European Communities, 2004). Drawn by Zara S Bhatti

Interventions

Creating Car Free Zones:

> *'Instead of wide, noisy streets in and out of the city and six story underground parking all over the city center, Copenhagen has opted for fewer cars and an extremely attractive city center. Copenhagen is living proof that it works'.*
>
> (Jan Gehl and Lars Gemzøe 1996).

Currently, several historic cities handle vehicular traffic and congestion through one-way lanes. However, to create a more pedestrian friendly historic district, it is imperative to tip the existing pyramid in which the car is prioritized. Public space needs to start with accommodating pedestrians, then bicyclists and public transit and lastly, use of private cars.

By 1960s, the city of Copenhagen was struggling with increasing volume of vehicular traffic, filling up the medieval center city and utilizing the squares as parking spots resulting in rapid deterioration of conditions for pedestrians. In 1962, the city implemented a drastic measure by converting the main street into pedestrian only zone, prohibiting entry of cars. Despite the skepticism and opposition, the plan faced initially, it proved to be a successful strategy that resulted in a pedestrian friendly vibrant city that attracts tourists throughout the year.

Today, the city has 33% streets and 67% city squares that are car free and 80 % of journeys are made on foot with 14% on bicycle.[2] The plan has resulted in economic boost for businesses in the pedestrianized area, with four times increase in stops and stays by the visitors compared to 1968.[3] Now car-free spaces are hotspot for cultural activities and festivities and are brimming with residents and tourists alike. The plan was implemented in phases and gradually transformed, allowing residents and users to adapt to the new changes and move from use of private vehicles to public transit, bicycling or walking.

COPENHAGEN, DENMARK

In 1962 the city of Copenhagen implemented a plan that pedestrianized their main street in order to promote more activity and reduce car use in the area. Since then, the city has gradually transformed the historic city center into an attractive pedestrian-friendly area. They have done this by integrating a traffic management plan that applied several strategies to increase the "walkability" of the area. These strategies included: limiting the number of parking spaces, reducing the number of car lanes on main streets, restricting through traffic, and developing public transportation and bicycle networks through the district. These efforts by the city authority have "evaporated" motor congestion in the historic center.[4]

Development of car-free streets and squares in Copenhagen city centre —1962-96

2

1962: 15 800 m2 **1996:** 95 750 m2

3

KEY TAKEAWAYS

- Gradual implementation of alternative networks (public transportation, bicycle lanes, etc.) allows locals to become accustomed with new routes while minimally obstructing access to businesses.
- The "walkability" of a historic center increases visibility of local businesses and promotes residential influx
- Car users will alter their travel behavior when faced with traffic congestion. Urban planners can take advantage of this opportunity to provide travel alternatives that optimizes the use of space and quality of life.

2. Source: European Commission Directorate-General for the Environment, *Reclaiming City Streets for People: Chaos or Quality of Life?* (Office for Official Publications of the European Communities, 2004).
3. Ibid

CAR DOMINATED DISTRICTS

SANTIAGO, CHILE

In 2017 Santiago was awarded the Sustainable Transport Award for the work it did to improve its pedestrian spaces, cycling networks, and public transport. The repaving of several of its center city streets was only one part of its large-scale transformation; beyond the designs of its streets, city authorities worked to change policies and offer educational programs to promote eco-friendly transportation among residents. The single-platform approach has been integral in creating safer spaces for cyclists and pedestrians throughout the city.[6]

Before **After**

4

5

BikeSantiago

KEY TAKEAWAYS

- The single-platform approach symbolically informs drivers that they are entering a pedestrian space which results in slower speeds and safer environments for cyclists
- This approach has best results when complimented with other signals that advise drivers to slow down, including tree plantings and street furniture. This also creates a more attractive environment for commuters, residents and shop-owners
- Education and policy changes are imperative in establishing large-scale changes to the city landscape
- Cooperation between municipalities homogenizes sustainable standards for a city

"Single Platform" Approach:

Our case study of Cuenca helped us realize that the city, like several other historical districts, faces the issue of pedestrian versus cars in its historic cores. These towns are originally designed and realized for foot traffic and animal pulled carts. However, today they are being used by fast speeding vehicles that have pushed its primary users i.e. the pedestrian to the periphery of the street. This move has not only reduced the space for pedestrians but has also put them at danger because of the absence of proper street lighting, zebra crossing, visibility mirrors and continuous sidewalks.

To improve pedestrian mobility, several cities globally have adopted the concept "single platforms" in pedestrianized zones of their historic districts. "Single Platform" refers to the leveling of the streetscape by eliminating height differences and space allocation between sidewalks and car space. This helps in creating repaved street mutually shared by different modes of traffic but with a focus towards the pedestrian. The lanes are demarcated through use of tree plantings, street furniture and lighting. The surface texture is changed from asphalt to a complementary material such as paved brick or cobbled stones that acts as a harbinger for speeding cars to slow down.

This approach was adopted by Santiago, the Chilean Capital in its central market called Calle Aillavilú. The car congested, unregulated market area was redesigned into a pedestrian friendly oasis. The city converted its Historical Center's main street into a Single Platform by adding more sidewalk space and providing a public transport exclusive corridor to accommodate commute between destinations. From 2003 to 2014, the city experienced a surge in car population however, its recent interventions helped in curtailing that as more people turned to bicycles, public transit or walking to avoid long jams and limited parking space. In the last two years, the city has seen an increase in bicycle usage as well, from 150 cycling trips per day to 5000, especially because of their bike share program called BikeSantiago. [5]

Introduction of single platforms in a highly congested area provides the pedestrian with safe and secure

4. Source: Jemilah Magnussson, "Santiago, Chile Improves Equity by Putting Pedestrians First," *Institute of Transportation & Development Policy* Images: Claudio Olivares Medina
5. Source: vitacurasustentable.cl

mobility space. The street is no longer dominated by fast speeding vehicles but is shared amongst different users who are cautious of each other's presence.

Adopting Sustainable Public Transit:

Our study of Cuenca revealed substantial presence of private vehicles along with public transport buses on the streets of its historic district. Pollution caused by these vehicles in historic cores is detrimental to the physical fabric of the built environmental and can cause severe damage eventually. It is imperative to reduce the number of vehicles in the districts by providing alternate, sustainable, and environmental friendly modes of transportation.

The city of Strasbourg in France initiated their Urban Mobility Plan in 1990 to battle traffic related issues such as car congestion, high air and noise pollution, limited sidewalk space and high number of accidents.[7] The focus of the plan was to reduce car domination in the city center and introduce a sustainable and accessible public transit system along with pedestrian and bicycle routes. The city reduced the number of vehicles on street by utilizing that space for public transit and rerouting the vehicular traffic to the periphery of the center by creating "loops". The plan was implemented in incremental stages and through constant community engagement.

The first Tramline A was inaugurated in 1994 followed by another in 2000, accommodating users of diverse abilities. It was estimated that use of public transit resulted in 17% reduction in traffic entering the greater Strasbourg area. Use of private cars also reduced from 72.5% in 1989 to 60% in 1999, and public transit use increased from 11% to 60 % in the same period.[8] The success of the public transit was significant enough for the city to initiate two more tramlines by 2010.

STRASBOURG, FRANCE

In 1994, the city of Strasbourg opened their first Tramline that connected the neighborhoods to the east and west of the city center. The project saw initial opposition by business owners and residents who feared that the construction of the infrastructure would result in reduced access to the area. To alleviate these concerns, city authorities conducted extensive consultation with residents, businesses and associations in the area to raise awareness of the benefits of the project. Ads were place in magazines and local newspapers to promote the project and its subsequent construction. In addition, a phone center was set up that people could call with their concerns and questions. Once the project was complete, studies were done that showed a growth in public transportation use and was considered so successful that additional trams were implemented and constructed by 2010.[9]

6

7

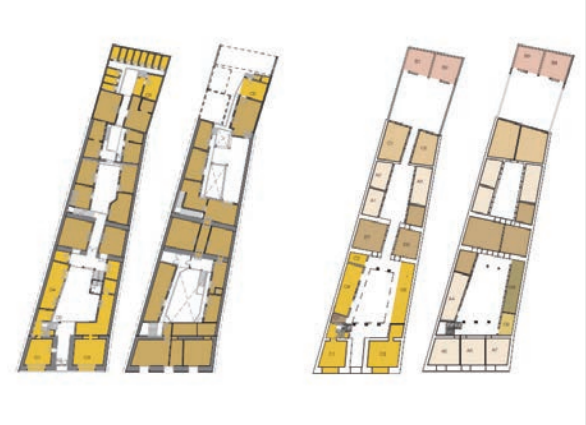
KEY TAKEAWAYS

- Opposition is expected, but a strong vision in sustainable solutions can have positive results
- Consultation is important, especially with residents, business owners and associations that are directly impacted by the implementation of a public transportation system
- Progress updates in venues that will reach the public, such as local news(papers), magazines, and street posters will create transparency and increase trust in city projects
- Make clear the benefits that locals should expect to see once a public transportation system is complete

6. Source: European Commission Directorate-General for the Environment, *Reclaiming City Streets for People: Chaos or Quality of Life?* (Office for Official Publications of the European Communities, 2004).
7. Ibid

HOUSING DIVERSITY

CUENCA, ECUADOR



In the historic center of Cuenca, a renovation plan for the historic building Casa Armijos has been proposed. The plan based on the typology of the building is to transfer the building into a condominium. The households living in the building can own their private rooms respectively as well as the public space in the building collaboratively if they buy the rooms in the building. Some of the rooms can still be rented. Meanwhile, the interior of the building will be renovated to create different areas of spaces with different prices so that the building will be a diverse space occupied by various households with different size and income. In this way, the residents can own the property thus can have the right to maintain and manage the building. Furthurmore, the building can be self-sustained. At the beginning, subsidies from the government is needed to initiate the renovation project. Once the project is completed and the ownership and tenement are established, the payment and rent can be used for the maintenance.[1]

In historic centers of small and mid-size cities, housing is a critical issue closely related to economic development as well as community development and social justice which are increasingly important concerns for historic preservation and urban planning. A vibrant community is expected to incorporate people of different gender, age, occupation, race, etc., and to contain various activities such as small businesses, recreation and entertainment, people's daily communication and commute, etc. Diverse housing in terms of area of the rooms, number of households that can be held, location, and price in particular contributes to a diverse community significantly, for the typological differences and the various prices provide more options for people with different preferences and income. Therefore, more people can engage in the various activities thus can contribute to the vitality of the historic center. In the meantime, housing can function as the container or physical context of the activities which can facilitate or influence the activities. In reality, however, historic centers in small and mid-size cities are gradually losing the housing diversity and ultimately losing the population diversity.

For housing in historic centers generally, two kinds of mismatch are currently identified as the major issues. The first one is between the functionality of the buildings and people's demands, while the second one is between residents' use of buildings and the capacity of the buildings. In other words, the functional obsolescence and physical decay of buildings are inhibiting the housing diversity.

For the functional obsolescence, housing typologies are neglected and not fully utilized to create livable spaces for people. The flight of the upper income owners leave the houses behind and rented by poor households working in the historic centers. Residents' needs for housing are rapidly changing. Historic buildings as the chief housing stock in historic centers, on the other hand, are gradually outdated even if they are still in fair to good physical condition.

For the physical decay, over utilization of historic buildings is one of the major reason. In addition, there is a lack of preventive and regular maintenance as owners do not maintain the buildings, and the ten-

1. Casa Armijos before renovation (left) and after renovation (right). Srouce: Damiana Isabel Pacheco Aviles, and Ximena Anabel Sarmiento Sanchez, "*Propuesta* de Intervencion Casa Armijos." (Tesis previa a la obtencion del titulo de arquitecto, Universidad de Cuenca, 2015), 136, 170.

ants do not have access to incentives to afford the maintenance of the public spaces. To some extent, the second mismatch is partly due to the first mismatch, which is to say when the functionality of the buildings cannot meet peoples' present demands, people tend to overuse buildings spontaneously for their own benefits. As a consequence, people's individual behaviors without proper regulation may damage the historic characteristics of the historic buildings and undermine the public good.

For housing diversity in historic centers specifically, the feedback loop formed by the failure of market and gentrification is exacerbating the loss of diversity. For one thing, only wealthy people are able to afford the rocketing property price in historic centers, thus are replacing low- and middle-income households. For another, the influx of wealthy people and the replacement of low- and middle-income households are raising the property value, making it more intimidating for low- and middle-income households. Overall, gentrification is worsening the housing diversity and population diversity in historic centers.

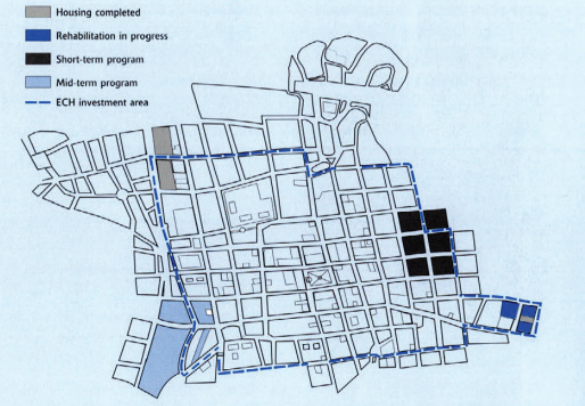
Therefore, government needs to step in and work with private entities and the owners/tenants in historic centers to solve the problems collaboratively. Government should consider providing policy support to attract residents and private investment, regulations to guide the rehabilitation projects, and other possible tools based on the local situation and available resources.

Some strategies are proposed to help municipal to transform historic houses to assets for urban development.

1. Direct Government Intervention
- Government can create a conducive environment for private investors by improving public space and public infrastructure.[3]

- Tax incentive is an efficient approach in encouraging private investment to adaptive reuse the historic buildings.[4]

QUITO, ECUADOR

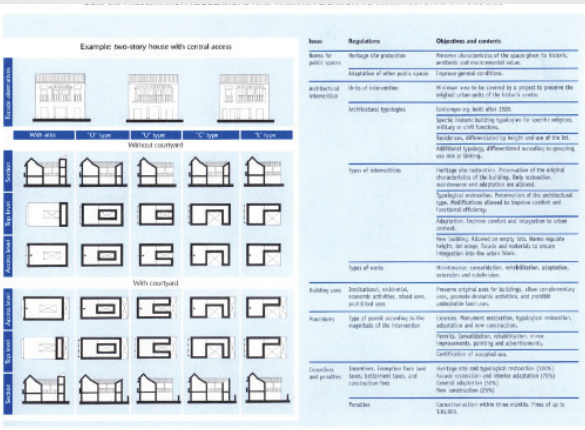


The ECH in Quito, as a real estate developer, implements a low-cost housing program that minimizes adverse impact on poor households, as well as creates an environment conducive to private investment. On one hand, the program stops the decay of historic center, and allows more involvement from different stakeholders such as building owners, real estate investors, merchants, residents, and daily users. On the other hand, ECH regards the historic center of Quito as a "mall" that remains commercial use and diversity to attract customers. ECH as a real estate developer, makes all the project investment and shoulders all the risks to form partnership with investors and property owners. ECH provides capital and technical instructions, while private partners contribute land or building, as well as capital and knowledge of the market.[2]

2. Historic center of Quito. Source: Eduardo Rojas, "*Old Cities New Assets: Preserving Latin America's Urban Heritage,*" (Baltimore: The Johns Hopkins University Press and the Inter American Development Bank, 1999), 98.

HOUSING DIVERSITY

CARTAGENA, COLOMBIA



To preserve the historic city center, the Cartagena government took the responsibility of upgrading infrastructure, enhancing public spaces, and regulating private investment in accordance with preservation principles. The Cartagena government then published the Ordinance No.6 in terms of adaptive reuse to identify the architectural typology. Basic types of intervention, description of features of areas where intervention is to take place, and identification of the expected interventions according to building typology both in section and plan are the main content of the ordinance. Additionally, strategies to attract tourists and private investors are also listed in the regulation indicating them how to take advantage of the cultural identification in the area, and investing specific areas. Also, the ordinance recognized the distinctive characteristics in each neighborhood in order to preserve the urban integrity in public spaces.

- Municipal implementation programs or loan in low-income housing is useful in decreasing the pressure in rental properties and increasing investment in rehabilitation of existing buildings.

2. Indirect Government Intervention
- By encouraging the involvement of property owners, rigid regulation is required to constrain the authenticity and integrity in adaptive reuse and constrain improper intervention of sub-owners.

- Technical support from government: various strategies can be used to promote diversification in housing typologies, and call for more attention in historic building maintenance.

- Condominium can be applied to solve the pressure in housing, provide affordable housing for diverse groups of people, and improve the quality of life in neighborhoods.

- More detailed regulation such as adaptive reuse ordinances is required for long-term preservation, which includes the changing of building typology, diverse and flexible intervention according to the typology both in elevation and plan, and carrying capacity for future function.

The ideas of condominium and ordinance in adaptive reuse are explained as follows as well.

Condominium:
To solve the overusing issue of historic residential buildings and provide diverse housing for local residents, condominium is proposed to alternate the traditional way in property holding with shared land hold.

Condominium, which is also called “commonhold ”in England and Australia, allows leaseholders to dispense their landlord and obtain a share of freehold: one of a group of housing units where the homeowners own their individual unit space, and all the dwellers share ownership of common use areas. Condominium also makes it possible for existing leaseholders to convert their ownership to commonhold and sale condominium property easier than a

3. Analysis of building typology in the historic center of Cartagena. Source: Eduardo Rojas, “*Old Cities New Assets: Preserving Latin America’s Urban Heritage,*” (Baltimore: The Johns Hopkins University Press and the Inter American Development Bank, 1999), 57.

single house. On one hand, condominium provides an effective approach in spatial division that divides a whole large property into diverse small spaces allowing for affordable housing for diverse people in society. On the other hand, condominium is a good way to preserve the integrity and authenticity of exterior common space in historic buildings, as well as to allow interventions in individual interior units.[5]

Ordinance in adaptive reuse:
Government should publish policies or regulations that can help encourage the involvement of public, allow for private investment, and regulate the intervention for both preservation and future urban development.

The ordinance should be based on the building typology analysis of historic neighborhood, providing flexible and effective strategies in spatial division that allow for diverse affordable living spaces for different groups of residents.[6] The typology study in elevation can guide private investors to work effectively to maximum the utilization of historic buildings , while the typological analysis in plan can point out the area that condominium can take place for sustainable use which can help improve the public spaces inside the private property, and enhance the life quality of residents and community. Moreover, the ordinance should identify distinctive features in different types of historic buildings and list preservation principles and interventions indicating how to take advantage of cultural identifications corresponding. Last, ordinance should strengthen the connection between government and the private.

VERONA, ITALY
SHAOXING, CHINA

The Old City of Verona had experienced dramatic change in the social structure of residents and the deterioration of housing stock. To deal with the issue and considering most residents did not have access to credit, the government started a microcredit scheme for the rehabilitation project where homeowners and tenants can apply for loans of US$3,000 repayable over four years. The Old City Authority also gave applicants free technical suggestions on conservation, restoration, and maintenance of their houses.[7]

The project in Shaoxing was primarily repairing and upgrading modest Ming and Qing dynasty housing in the canalside neighborhoods in the historic city core. The goal of creating a healthier living environment while keeping as many indigenous residents, especially the poor households, as possible was achieved by upgrading the overall built environment and the facilities in individual buildings. The funding was largely from the World Bank.[8]

4. General view of the historic center of Verona, Italy. Source: Eduardo Rojas, and Francesco Lanzafame, *City Development* (New York: Inter-American Development Bank, 2011), 283.
5. Historic city core of Shaoxing, China. Source: Chinese National Geography, http://www.dili360.com/cng/article/p5350c3da32b7c87.htm.

COMMERCIAL SUSTAINABILITY

INDIA

India has an old tradition of textiles, which can be traced back to the Indus Valley Civilization.[11] Textile craft not only has been a means of creating a local economic base, but is also valuable intangible heritage passed on through generations. Today, textile craft in India is facing challenges brought by industrialization, globalization, and new technological development. In the context of the internet-based global economy, traditional production technology becomes less economically viable, especially because small-scale producers to access this online market.[12]

The local commercial environment is central to a city's ability to ensure equal access to opportunities and a sustainable economy, two key New Urban Agenda goals. If local businesses struggle to compete against chains or tourist oriented functions, or if a family's traditional livelihood is no longer viable, then some people may struggle to find a sustainable livelihood. Thus, it is important to help businesses be as sustainable as possible to protect access to opportunity into the future.

Heritage assets can play a key role in commercial sustainability for many people. Many families in Cuenca, for instance, rely on crafts like iron work or hat production for their livelihoods. Others rely on access to local businesses like bakeries for food and community connection. Still others rely on the informal economy of markets in public spaces to access income. Supporting these assets are key to a sustainable economy.

A lack of commercial sustainability can take several forms. Three situations we have identified that indicate a lack of commercial diversity include:

- Traditional crafts and trades struggle to remain viable as they become less relevant for the local community
- Local businesses that currently serve the community struggle to compete against convenience stores or tourist-oriented businesses
- Informal markets occupy public space and need better management

Below, we will discuss tools for assessing current commercial health and for intervening to create a more sustainable business environment.

Assessment

Methods for tracking health of local businesses can fall into two categories: data reported by citizens and data collected by institutions. In the first category, cities can require that small, locally owned businesses report when they close or move.[1] If these records are kept over time, then a city can see patterns in what type of businesses close, where they close, and any increases or decreases in closures. This can highlight when locally-relevant businesses or traditional trades and crafts are becoming less sustainable

1. The Indian Ministry of Textiles presents to UNESCO (Source: Smriti Z Irani on Twitter).

If government-city cooperation is unlikely, then a local institution can conduct a walking inventory of local businesses.

We developed a methodology for institutions to assess health of local businesses. In Cuenca, we tracked the location, size, and types of businesses, including service, craft, general, informal, and boutique heritage, along a three-block route in Cordova. After gathering the data, we placed everything on a map to find a correlation between location and business type, size, and cost. This information can be used to assess the health of commercial areas at a point in time and can be used to show trends if done on a regular basis.

Interventions

Traditional crafts and trades

Our case study of Cuenca found that traditional trades and crafts, which can sustain families for generations, can struggle to remain viable as they become less relevant for the local community or compete with industrialized production methods. One such example is iron work. As these crafts become less profitable, it can damage the social fabric of a community and make future income less certain. Of course, evolution of businesses is a natural process as technology and tastes change; however, if locals are motivated to keep trades and crafts alive, there are several options for how to sustain them.

One option is technical training to help craftspeople access world markets. If traditionally-made good can gain new audiences online, then crafts may become more viable. In India, the Ministry of Textiles offers such workshops to craftspeople who practice traditional weaving.[2]

Another option is to create policies that make local crafts more competitive. This is well-suited to situations in which locally-crafted products struggle to compete with mass-produced ones. For instance, the government can patronize local crafts as much as possible, even if it means choosing them over cheaper options. It can also simply help with domestic advertising nation-wide. The Indian government has policies that promote

SAN FRANCISCO, US

2

San Francisco conducts analyses of local business closures that show closures are at an all-time high. There were 4,000 closures in 2014 alone compared to less than 700 in 1994.[13] Revitalization, new development, and an increasing gap between the wealthiest and the poorest citizens are connected with increasing speculation and rising prices, both for commercial and residential space.[14] The increased competition leads to the loss of businesses that may be anchors in community culture and daily life.[15]

2. Roxie, a well-known and culturally significant business in San Francisco (Source: "Legacy Business Registry and Preservation Fund," https://www.sfheritage.org/legacy/legacy-business-registry-preservation-fund/).

COMMERCIAL SUSTAINABILITY

such consumption in the domestic market, including requiring hand-woven cotton uniforms for government school students and highlighting textile products in fairs help sustain the industry by connecting it to a wide base of consumers.[3]

It should be noted that these policies work best when they build upon a local desire to see a particular trade preserved. When this is the case, the policies help empower artisans by offering financial and technological resources they would have had little access to without governmental support. If that local will does not exist, however, the government should not impose preservation of a local craft purely for the sake of preservation. If no one wants to continue the craft, it has little hope of becoming a part of a sustainable commercial economy.

Local Businesses

Many of the businesses in Cuenca are small corner stores selling snack foods. Many others near the town center are tourist-oriented, high-end shops and restaurants. While these uses are not concerning in and of themselves, they can cause problems if they displace businesses that are necessary for daily life or otherwise part of contemporary culture. In Cuenca, these might include hat repair shops and bakeries. Usually when displacement occurs, the problem is not a lack of business, but of an inability to afford higher rents.

Interventions to aid with this issue can be led by either the city or the local community. If the city takes the lead, one option would be to create a registry of local businesses that are either central to the current community, have been present for a long time, or are important to the community's history. At the very least, the registry will force the community and government to consider which businesses are most important to them and will increase awareness when one is lost or threatened. But local governments can also create a fund to support these businesses. In San Francisco, the Legacy Business Registry and Preservation Fund recognizes businesses more than 30 years old and significantly connected to their neighborhood. Registered businesses agree to maintain their traditional craft and name. In exchange, the businesses are eligible for an annual $500 per employee grant. Building owners can also receive a $4.50 per square foot grant if they extend ten-year leases to registered tenants.[4]

When government power or authority is limited, community land trusts may provide an option to protect local businesses by ensuring affordability. When a community land trust owns a property, they can charge rents just high enough to cover maintenance, helping important community businesses stay in the building. The trusts can obtain land or properties by acquiring public land or if tenants are given right to purchase the property before it goes on the market.
San Francisco is also an excellent case study for this type of intervention. The city has a vibrant community land trust organization for residential that could be extended to commercial. When a building is about to go on sale, the San Francisco Community Land Trust partners with current occupants to purchase the property, securing financing and providing technical assistance. The buildings are converted into housing cooperatives, in which residents are owners of the building, while the Land Trust retains ownership of the land. Because the cooperatives and Land Trust are not for profit, they can ensure that the spaces remain affordable in perpetuity, ensuring access to a wider variety of occupants.[5]

Informal Markets

In mid-size Ecuadorian cities, informal markets are important intangible heritage and essential components of local residents' lives, but management is usually challenging. The markets take up public spaces in the city center and obstruct pedestrian and vehicular traffic. There is an urgent need to develop strategies to manage informal markets so that the city center can provide a better public space while protecting the vendor's income sources and preserving markets' function of serving local population. These strategies can be implemented by the municipality or an independent organization.

The formalization of informal markets in Quito was conducted by the municipality, which created eleven popular commercial centers to accommodate street vendors.[6] Open meetings were held by the municipality

to discuss changes with the vendors. The new spaces were awarded to the vendors but they were not allowed to rent out or sell for a period of seven years.[7] A new entity, UECM (Unidad Ejecutora del Comercio Minorista), was established to manage the popular shopping centers, and the responsibility was expected to be transferred to another entity representing the vendors. However, it is evident that the vendors cannot afford the cost of running the shopping centers without UECM, whose mandate has been extended many times.[8]

An alternative to manage the informal markets is through grassroot non-profit organization, which sometimes works better than direct government management. For instance, the municipality of Cuenca had difficulty in managing local markets due to lack of vendors' trust and cooperation. Depending on the availability of local resources, the municipality could support an independent market operator to achieve its management goals. Having an organization representing vendors to manage the informal markets from the beginning might be helpful to establish a self-sustaining structure.

CUESA (Center for Urban Education about Sustainable Agriculture) in San Francisco provides a potential framework to tackle this issue by founding a grassroot non-profit organization to operate the independent markets. Founded in 1994, CUESA is a non-profit operator that manages six farmers markets in San Francisco.[9] It provides supporting services to sellers and buyers and organizes educational programs to cultivate a healthy food system. CUESA's management ensures the markets' long-term viability and success through its marketing power, operational expertise, educational programming, and customer service.[10] The organization is a partner rather than a manager and is more likely to win vendor support. As a result, various interventions can be implemented through the organization to create better public space, regulate commercial activities, encourage diverse mix of businesses, support sellers to make their businesses sustainable, and enhance shopping experience for market patrons.

QUITO, ECUADOR

3

The capital of Ecuador, Quito, encountered the issue of managing informal markets when rehabilitating the historic center in 1988.[16] Informal street vendors occupied many historic spaces, and this was regarded as an obstacle to the overall development of the area. A study of the vendors conducted by the Municipality of Quito in 1996 concluded that "informal commerce constituted a popular solution in the face of the shortage of formal employment opportunities and it satisfied the consumer demand of the low-income sector of the population of the city."[17] Therefore the municipality initiated a formalization process to relocate the informal street vendors.

3. Centro Comercial El Tejar, one of the popular shopping center in Quito (Source: Diego Pallero/EL COMERCIO) http://www.elcomercio.com/actualidad/centroscomerciales-ventas-navidad-precios-centrohistorico.html).

OWNERSHIP OF PUBLIC SPACE

REGENSBURG, GERMANY

The Old Town of Regensburg with Stadtamhof was included into the World Heritage List in 2006.[1] This designation not only makes Regensburg a World Heritage City, but also brings challenges to the city's heritage management. To fulfill UNESCO's requirement, the city proposed a Management Plan in 2012 describing how the World Heritage would be conserved, preserved, used and developed. Among its eight fields of action, the design of public space is highlighted in its "urban planning and development" section.

A common issue in Ecuador's mid-size cities is the lack of diverse ownership in urban public spaces, which has brought various problems to the quality, security, and economy of those cities. As a result, current public spaces in many mid-size cities in Ecuador are unable to meet everyone's needs. To deal with this, we identify three key factors contributing to the main issue of public space, which include:

- Insucient accessibility and sustainability
- Underutilization and safety of public space
- Under-representation of local context

These issues have had negative impact on the way and frequency that a public space is used.

Many cities around the world, especially those with historic fabric, have approached these issues by practicing various solutions. The Regensburg World Heritage Site in Germany and Austin, Texas, in the U.S. were identified as case studies in order to guide our recommendations for increasing the diversity of the ownership of public spaces. Correspondingly, the two documents guided us with potential tools that could be applied to mid-size cities in Ecuador: *World Heritage-Management Plan for the Old Town of Regensburg with Stadtamhof* and *Urban Design Guidelines for Austin, Texas*.[2] Both cities emphasize on the importance of understanding the history and heritage of the location, the inclusion of a networks and connections to spaces, the integration of artistic installations and activities to promote interaction of the public, and the improvement of the quality of spaces. Below, specific tools are presented and analysized based on how they are related to the three contributing issues.

INSUFFICIENT ACCESSIBILITY AND SUSTAINABILITY

The lack of accessibility and sustainable mobility is a typical issue for public spaces in a city's historic center. Accessibility is about how public spaces are connected to other parts of the city while sustainable mobility focuses on the quality of connections. Usually, poor accessibility can prevent the public from using a space, which would lead to its deterioration. Furthermore, unsustainable mobility brings not only traffic along with noise and sound pollution.

1. Old town of Regensburg with Stadtamhof. (Photo: Peter Ferstl)
2. Interactive and diverse open space, Austin Texas (Photo: Paul Lutey)

Several tools could be applied to deal with these issues. On a larger scale, to make public spaces accessible for users around the city and to increase the mobility around them, the promotion of the use of public transport is a helpful tool, that has been practiced in many cities around the world. To realise this, an improved public transportation system and related facilities such as road system are needed. They will help bring people to public spaces and at the same time dissipate traffic around those areas. On a smaller scale, no-barrier design and better sidewalk connections will make it easier for nearby users to access public spaces.

UNDERUTILIZATION AND SAFETY OF PUBLIC SPACE

It is specially important for public spaces in historic centers to continue to serve as public amenities since public spaces are for everyone. They are not only spaces where people visit to relax and socialize, but are also contributors to the economy of the place and the well-being of its users. In order to increase the usability of these spaces and to promote their diversity, some interventions can be implemented to promote security, comfort, and amenities available to the public.

In some open spaces people do not feel welcomed to stay and use the space. Sometimes it is because tof a lack sitting areas, sometimes it's because there are no shadowed areas, and in other cases the scale of the place is not inviting. The distinction of areas, the addition of sitting areas surrounded trees and shrubs that are native to the place can create sustainable places that everyone can enjoy. Trees, shrubs, and other plants can enliven our spaces by colorizing the city and providing more shade to cool down the environment. In addition, their leaves could catch the

OWNERSHIP OF PUBLIC SPACES

AUSTIN, US

The Urban Design Guidelines for Austing were developed in 2009 by the Design Commission of the city of Austin to ensure the articulation of human character, density, sustainability, diversity, economic vitality, civic art, a sense of time, unique character, safety and connection to the outdoors in the new urban places. These values were incorporated in the guidelines reccomendations. Among its four guidelines, some recommendations from the “Plazas and Open Space Guidelines” are highlighted.

breeze, and create and atmosphere for relaxation.

Usability could also be promoted through interventions that increase security. The installation of more dark sky illumination will not only help with nighttime visibility, it can also transform the perception of any space. The design of outdoor spaces should consider how they will be used by people so that the circulation patterns the design layout attend the use requirements. This will ultimately affect how the space is perceived, how people use it, and what people see. The installation

of urban furnishings, such as benches, litter bins, and public toilets, will also encourage people to be responsible users of the place. This will not only provide places for people to relax and enjoy the outdoors, but will also keep the space clean, desirable, and safe.

All of these recommendations should always consider the diversity of uses, occupant groups, activities and the city’s heritage, in order to create sustainable, accesible and responsive.

3. Interactive fountain in Plaza, Austin Texas (Photo: Paul Lutey)
4. Neupfarrplatz. (Photo: Peter Ferstl)
5. Bismarckplatz. (Photo: Peter Ferstl)

UNDER-REPRESENTATION OF LOCAL CONTEXT

A city's public spaces contain its history and culture. In the historic center especially, public spaces are not only where people congregate but also where people experience the physical environment that has been shaped through the time. Thus, public spaces should take the responsibility to educate the public and reflect the culture and history of the city in their design.

Three tools are identified in two cases to increase culture integration in public spaces. In both Austin and Regensburg, art and culture are highlighted in their plans with different focuses. In Austin, physical design in public spaces such as sculpture and civic art is used to enrich users' cultural experience and shape their sense of place. In Regensburg, attention is paid to the promotion of artistic and cultural events. Both tools, in tangible and intangible ways, could be used to integrate cultural elements in public spaces. In addition, in Regensburg, history of a public space is considered an essential design element in its redesign or further development.

6. Danube Promenade. (Photo: Peter Ferstl)

CHALLENGES

To deal with the three key issues in public spaces, several tools are suggested above to increase the diversity of ownership. In addition to these shared issues, mid-size cities in Ecuador might have their own issues. However, they all face similar challenges when dealing with those issue, including a lack of community engagement, conflicting needs, and a lack of supporting activities and facilities. These, on the one hand, have challenged city managers in dealing

with various issues in their public spaces, and on the other hand, are the keys to tackle with those issues. Therefore, although there are various tools to choose from to deal with different issues of ownership in public spaces, the promotion of community involvement and integrated design and planning will be fundamental approaches.

INSENSITIVE CONSTRUCTION

QUITO, ECUADOR

1

Contemporary interventions mean both great opportunities and challenges for the sustainable development of urban heritages. The issue of keeping a "sense of place" and the issue of "integrity" are at the core of how to appropriately adapt and reuse old buildings and how to create new designs which are sensitive to scale, materials, exterior finishes, etc.

The 2016 final report from the studio-based course "Urban Regeneration in Quito, Ecuador" (PennDesign Historic Preservation Master Program) explored possibilities in regulation and design guidelines to better manage changes over heritage building stock, either adaptive reuse or contemporary intervention, when the city of Quito would want a balanced path toward sustainable development and preservation.

New construction in historic districts has been a public concern in cities all over the world which has generated a lot of discussions on what kind of new design is appropriate in historic settings.

The rising issue of insensitive construction in historic districts is partially due to the inevitable changes in construction technology and building culture. Yet, new constructions in historic districts should respect and even enhance the historic context. They should not diminish or weaken the presence of the historic characters and the values of historic structures. It is significant for the sustainable development of urban heritage when the new intervention/construction could establish connections to the historic environment. The other reasons that contribute to the issue of insensitive construction are lack of regulation on new intervention/ rehabilitation and design guidelines.

A sensitive construction in historic area should be compatible with:

1. Neighborhood context
2. Street life
    a. Setback/street edge
3. Building
    a. Scale
    b. Materials
    c. Color
    d. Façade
    e. Window/door rhythm
    f. Roof

REGULATION

Regulation is one of the main tools that we could intervene the process of making new construction in historic districts. Cartagena in Colombia is a case study to illustrate how a very typological specific regulation – Ordinance No.6 - helps to manage new development project and new rehabilitation projects in the city's historic districts. In the case of Cartagena, the regulatory approach has made it possible to preserve the overall consistency of the urban fabric and ensured that these new investments meet technical historical preservation standards.[3] In addition, the regualtion are enforced by "urban curators", who are private professionals licensed by the municipality to control

1.

development in the field.

DESIGN GUIDELINES

Design guidelines is the other tool that we could use to manage change in the process of urban development in historic districts.

According to the National Park Services, U.S. Department of the Interior:
Design guidelines could provide:

1. A basis for making fair decisions
2. Consistency in design review
3. Incentives for investment
4. Property value enhancement
5. A tool for education

Guidelines could also:
Explain, expand, and interpret general design criteria in the local preservation ordinance; help reinforce the character of a historic area and protect its visual aspects; protect the value of public and private investment, which might otherwise be threatened by the undesirable consequences of poorly managed growth; indicate which approaches to design a community encourages, as well as which it discourages. Serve as a tool for designers and their clients to use in making preliminary design decisions; increase public awareness of design issues and options.[4]

PHILADELPHIA, US

2

"Sense Of Place: Design Guidelines For New Construction In Historic Districts"
A Publication of the Preservation Alliance for Greater Philadelphia

Granted from the William Penn Foundation, the Preservation Alliance for Greater Philadelphia published this design guidelines document, which describes the the design criteria and approach that the Alliance has concluded is likely to produce new designs that are most sympathetic to historic districts.

The publication has three objectives:
- first, it is intended to guide the Alliance's evaluation of new construction projects and to assist community organizations and regulatory agencies in their review of proposals for new construction in historic districts;
- second, it is intended to assist architects and developers planning and designing projects in historic contexts;
- third, it is intended to stimulate debate about the design of new buildings in historic districts.

2.

BUILDING OBSOLENCE

CARTAGENA, COLOMBIA

In Old Cartagena, the buildings located in their historic center accommodated the domestic activities of the wealthy for many years. Changes in architectural design and fashion led to a need for modern amenities and thus suburban dwellings were more desirable. This caused such families to move out of cities and to the suburbs, a trend that followed in the United States as well. Once they left the core of the city, their neighborhoods turned to slums and there was the issue of overcrowding with several families occupying structures that were designed for single family use. (Rojas 23) This unintended adaptive reuse of said dwellings benefitted the tenants as they were now located closer to the city center and jobs and the landlords were able to generate rental income and benefit from what were sure to become useless properties that were almost sure to be demolished and redeveloped due to their central location. The loss of utility led to a modified functional use of the building that prevented functional and economic obsolescence.

KEY ISSUES:

2

3

1. https://diariolavoz.net/2015/08/31/barrio-en-cartagena-llamado-republica-de-venezuela-se-quiere-cambiar-el-nombre/
2.
3. Street Scape Cartagena, Colombia (Photo: José Balido) http://love2fly.iberia.com/2013/11/travel-to-cartagena-colombia/

Heritage building conservation is thwarted by many issues that affect the life cycle of buildings and their contribution to the character of historic centers around the globe. Of these issues, building obsolescence is one of the most common due to the fact that it is comprised of smaller issues that combine to form the one large overarching idea that buildings die, or become obsolete. Obsolescence is not a natural disaster but a function of human interaction with the built environment and thus, can be prevented. There is a common misunderstanding that buildings along with other consumer goods should be replaced or destroyed when they become obsolete, but an awareness of the issue and the causes of it can lead to prevention if the signs are clear and measures are taken at the right time to avoid it.

In order to achieve the sustainable conservation of the world's urban heritage areas, we must begin to tailor heritage buildings to serve the contemporary needs which should in turn attract users and private investors. These moves will ensure the economic and social development of the historic urban center turning heritage buildings into assets to be conserved and protected in place of becoming obsolete. The goal is to "achieve a balance between preserving the socio-cultural values of the heritage and allowing interventions to put them into contemporary uses… the solution requires the use of analytical methods and intervention instruments of the historic preservation and urban planning disciplines." (Eduardo Rojas) Obsolescence of buildings, defined for use in this report, is the result of flaws that cause the building to lose value and can be expressed in three forms: functional, physical, and economic or external. (The Three Types of Obsolescence)

Functional Obsolescence
Functional obsolescence occurs when a property loses value due to its architectural design, building style, size, outdated amenities and features, local economic conditions and changing technology. It often involves a loss of utility meaning that the function that the building was originally intended to accommodate can no longer be achieved. Another form of functional obsolescence comes when the operating costs (for commercial structures) is more than the incoming capital. These things together or in isolation cause the building to lose value and leads to vacancy or abandonment.

Physical Obsolescence
Physical obsolescence occurs when a property loses value due physical neglect resulting in deferred maintenance that's usually too costly to repair. Age and wear and tear of the building are also leading causes of physical obsolescence or it may be caused by natural disasters or "the sustained effect of weather or changes in urban activities" (Rojas 23). This is the most common form of obsolescence and although the list of causes for physical obsolescence is a short one, the number of tools and interventions in the urban design and historic preservation context for countering this form of obsolescence are high. Like functional obsolescence, vacancy and demolition by neglect are common next steps that follow a building becoming obsolete depending on the severity of the ailments.

Economic Obsolescence
Economic obsolescence occurs when a property loses value because of external factors such as local traffic pattern changes or the construction of public nuisance type properties and utilities such as county jails and sewer treatment plants on adjoining property. It also occurs when the value of the land becomes greater than the value of the building. This makes the land more valuable and ripe for development and an increase in economic pressures to achieve the highest and best use of the land give way to its demise. This type of obsolescence is sometimes known as external obsolescence when the factors that drive the building to be obsolete are not directly tied to the building itself or the building alone. External obsolescence works on a larger scale than economic obsolescence and could affect an entire block or an entire neighborhood or historic center.

Assessment
Functional and physical obsolescence primarily hinder the buildings capacity to comfortably and efficiently accommodate the current uses of the building. The result of this is the decrease in demand of these buildings in the real estate market as well as the shrinking of the buildings value. Ultimately, it is safe to say that physical and functional obsolescence often lead to economic obsolescence. In real estate, the most important

BUILDING OBSOLENCE

factors are location, location, and location. This remains the case for buildings located in historic centers as well. A building close to the central center will receive more development pressures than one located on the outskirts of the center due to the high land value and property taxes. Their central location makes them ideal for critical uses thus making them more desirable. On the contrary, for non-centrally located buildings, they face the struggle of surviving outside of the economic core with issues like "poor business efficacy, redevelopment, poor proximity to markets, competitors, and pedestrian volumes…" (Nurul Zahirah Mohd Azizi et al., 589) This in turn leads makes it difficult for customer/consumer-driven structures to thrive and avoid physical obsolescence and obsolescence of function and economics.

Interventions

As previously mentioned, the top three factors contributing to building obsolescence are lack of utility, physical deterioration or wear and tear of the building, and when the value of the land exceeds the value of the building. Each can be connected to one of the forms of obsolescence and interventions are available that can tackle, one or all of the three forms of obsolescence mentioned previously. Interventions to be discussed vary based on the form and the buildings place in the stages leading to it being obsolete. Interventions for building obsolescence include but are not limited to pre-design analysis, adaptive reuse and rehabilitation, and affirmative building maintenance. Issues that may prevent these interventions from being put in place are cost, rate/risk of demolition, an inability to conform to new technologies and regulations, and lack of investment to name a few.

Pre-Design Analysis

Pre-design analysis is an important tool for tackling building obsolescence due to the fact that it causes the designer and owner to think more before they act. It calls for an assessment of possible changes in the historic center that would render the building obsolete in either or all forms. It involves programming for the possibility of future changes in the function of the building and is a tool used to prepare for design or rehabilitation work. The National Research Council identified various types of pre-design analysis as:

- Using integrated building system
- Making flexibility a design goal
- Adopting details that enhance flexibility
- Unconstrained interior space
- Accessible service areas
- Modularity [the degree to which systems com ponents can be separated and recombined]
- Shell space [space constructed to meet future needs; it is space enclosed by an exterior building shell, but otherwise unfinished inside.]
- Using prototypes to test performance
- Sizing components to serve demand growth

Pre-Design Analysis calls for thought beyond the initial function. Even when another intervention, like adaptive reuse or rehabilitation is explored, this analysis should be conducted so that the building is prepared for more than just the current change. If you have a mixed-use building that is 3-4 stories and you want to change the use of the ground floor to be residential as well, pre-design analysis would aid in exploring the possible reversion back to a mixed-use if the market called for it in the future.

Affirmative Building Maintenance

Every historic building, structure, or object located in a historic district are subject to the affirmative maintenance requirement. This requirement is that they "shall be kept in good repair" but this is a requirement that is often hard to enforce. In Julia Miller's A Laypersons Guide to Historic Preservation Law she defines the requirement as applying to structural components of the historic structure and not the entire structure. Affirmative maintenance, or preventative maintenance should be seen as all-inclusive in order to prevent physical obsolescence and demolition by neglect. Cost is a huge deterrent when it comes to the maintenance of historic buildings and right alongside it is the willingness of the owners to perform such maintenance with the reason being the cost or the fact that they are not directly impacted by the worsening conditions. In light of these issues, local preservation ordinances have inserted affirmative maintenance requirements into their language to avoid such results. This is important in maintaining the physical beauty and functionality of the buildings, making stewardship a requirement, and maintaining the overall cohesion of the historic center.

of the economy), which in turn brings a level of stability to a community. When properly managed, this stability attracts investments and improvements that contribute to the overall maintenance and conservation of the physical space.

In addition to important traditions and architectural landmarks, Ecuador possesses rich environmental and natural assets that are highly valued by the country's citizens. We are advocating for new ways in which to integrate this natural heritage into the fabric of the city; green spaces, a valuable category of open space, are essential not only for the prosperity of Ecuador's cities and citizens, but for its heritage and culture as well. Green spaces promote walking and biking as sustainable modes of transportation, which in addition to providing health benefits to citizens, work to reduce harmful environmental pollutants and urban congestion that negatively impact the historic architecture of a city. Open spaces can be tools employed to preserve viewsheds of valuable built and natural heritage assets.

While our preservation efforts focus on historic city centers, we must acknowledge that this is one small section of an interconnected, regional ecosystem. If we cannot support healthy, thriving communities, efforts to conserve built heritage will be in vain.

1. Port, Fortresses and Group of Monuments, Cartagena (Photo: Bruno Poppe)
   Permanent URL: whc.unesco.org/en/documents/117958

MISSING GREEN SPACES

UNITED STATES

Many cities in America are maintaining their public green spaces through development impact fees. The fee, often called a Park Land Fee, is included during the permitting process of a development, typically new construction. A development impact fee is typically calculated based on the area of impact from the development. Some cities give developers the option to donate land in lieu of the fee, but a city should evaluate this option if the park maintenance requires a large budget.

Cities that use impact fees will set usability guidelines for the money collected. Impact fees related to green spaces or parks or are typically restricted to buying and maintaining green spaces. A park maintenance budget could be fully derived from a parks-focused impact fee if enough new construction exists in the city.

Much of the green space in Ecuadorian cities have traditionally existed with the public realm as residential courtyards. As the rate and density of urbanization has increased, prompting a shift in housing practices, these courtyards are no longer capable of satisfying green space needs of residents. Their very presence has been devalued. This de-valuation has resulted in two closely connected issues: traditional green spaces are vanishing within the historic city centers of Ecuador, and the creation of new, equitable green spaces has not been prioritized.

As outlined in section one of this report, green space is essential for the the health, prosperity, and preservation of historic city centers. Access to green space has been proven to improve the lives of all citizens, regardless of race, religious, or socioeconomic status. Green spaces function similarly to well-designed public spaces: they provide opportunities for accidental meetings or formal gatherings. In addition, however, green spaces also provide clean air and access to nature that may not otherwise be available to all citizens.

Preserving Green Space

Traditional, private green spaces offered citizens the opportunity to enjoy a piece of nature in the comfort of their own home. As development practices modernize and urban density level increase, these private green spaces have been re-allocated to meet new needs, most commonly parking or additional housing. From a tangible heritage perspective, examples of these traditional courtyards should be included in conservation considerations for historic city centers, and remaining examples should be prioritized for preservation as they represent important assets in Ecuadorian heritage. One way to encourage their preservation is through the creation of context sensitive designs, as was seen in Beijing, China and their effort to preserve the city's traditional siheyuan courtyard style houses.

Prioritizing New Green Space

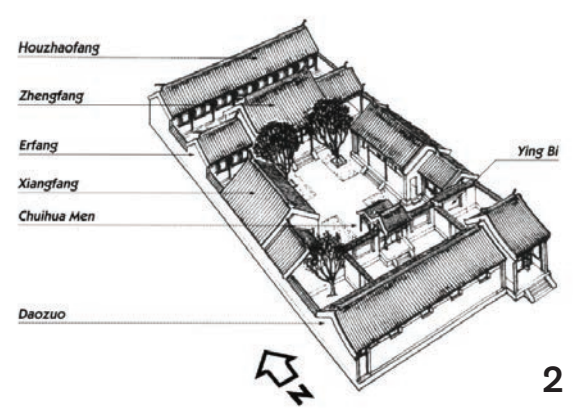
Recognizing that it is unrealistic to maintain all of the private green spaces in a historic center, the removal of such greening must be paired with the creation of new green networks elsewhere in the city. Though privately

1. San Francisco in California regularly uses Impact Fee for the improvement of public amenities. (Photo: Victor Grigas)

owned, these green spaces helped to mitigate the negative externalities that arise from rapid urbanization — such as air and noise pollution, rising temperatures, and flooding — thus the loss of private green courtyards has a city-wide impact. Public green spaces have become the most common method to fill the void as private green spaces vanish. Public green spaces, such as parks or greenways, are accessible by all and most often managed by the municipality. However, the development and maintenance of new and existing green spaces can consume resources at an alarming rate. A solution to this is the implementation of Development Impact Fees or zoning incentives that create public spaces and funds in exchange for certain new development projects.

It is important to remember that environmental improvements must be considered in tandem with both public and private development initiatives, and that the historic city center cannot be divorced from its wider city, regional, and environmental contexts.

BEIJING, CHINA



The traditional courtyard houses of Beijing, called siheyuan, are a Chinese vernacular dwelling that has traditionally housed one extended family and guaranteed dedicated green space for Beijing residents with an internal courtyard. Like many cities, Beijing dealt with significant changes through the twentieth century, including a general disinvestment in traditional dwelling typologies and rapid population growth. The siheyuan began to be demolished at a rapid rate due to lack of regulation and regard. The loss of this housing style resulted in a loss of valuable green space and local heritage.

Beijing addressed the loss of these valuable courtyards through development and land use policies. In 1990, Beijing developed architecturally-focused preservation policies that would support architects' efforts to create context-sensitive designs that reinvigorate the traditional courtyard green spaces. The re-introduced courtyards improved the greening of Beijing as a whole. Then, in the early 2000s, Beijing realized that many of the siheyuan had been restored with structures in the courtyards. The city established permit review system to focus on the restorations and now prohibits any construction in the courtyard space.

2. Example of a traditional siheyuan courtyard house. (Photo: Beijing's Preservation Policy and the Fate of the Siheyuan)

LOOKING FORWARD

In this report, we have discussed several topics relevant to using heritage to achieve social and economic development in Ecuadorian mid-size cities. Using Cuenca as an example and building upon the excellent work that has already been done by the city, nation, and Universidad de Cuenca, we developed a list of heritage assets that are most likely to contribute to New Urban Agenda goals. We also briefly identified the effective methods that have been used in Cuenca to identify an increasingly wide variety of stakeholders and to assess heritage assets.

Next, we discussed the general process that cities should follow when seeking to develop their cities socially and economically from assessing current conditions, to intervening, to monitoring results. This process is applicable to all mid-size cities in Ecuador. We performed it for Cuenca as an example, and we have included a blank "health check" in the appendices that cities can fill out themselves.

We then explored the issues that are likely to arise from these health checks. The issues refer to categories of situations that may prevent cities from achieving New Urban Agenda goals. These are also issues which heritage assets can help to solve. For each issue, we explored variations of problems, why those situations are problematic, tools for assessing existing conditions

1. Las Herrerías (Photo: Katherine Randall)

of the issues, and tools for intervening. We also provided international case studies.

We hope that this report will be useful both to the Ministry of Housing and Urban Development and to individual cities. The Ministry may find the matrices, which draw connections between issues, heritage, and the New Urban Agenda, most helpful, while the cities may find the step-by step guidelines and health check most helpful.

We hope that this work will help Ecuador achieve its goals as a signee of the New Urban Agenda and will point the way towards using heritage to achieve those goals, ensuring a healthy and sustainable role for historic city centers into the future.

SOURCES

Introduction-Mid-Size Cities

1. “La Prosperidad en las Ciudades de Ecuador: Primer reporte del Indice de Prosperidad Urbana (CPI) para 27 cuidades ecuatorianas.” Banco de Desarrollo de America Latina. 2016.

Introduction to Cuenca

1. Archig Balarezo, Maria Cecilia; Cardozo Martinez, Fausto. “Hitos en la historia urbana y patrimonial de Cuenca.” Lecture, Cuenca, Ecuador. March 5, 2018.
2. Rey, Julia; Astudillo, Sebastián; Siguencia, Maria E.; Forero, Jualina; Auquilla, Silvia. 2017. “Geological and Hydrological Diagnosis” In Historic Urban Landscape, 45.Cuenca: The Neatherlands Funds-in-Trust for World Heritage. Faculty of Architecture and Urbanism at University of Cuenca (FAUC).
3. Achig, Maria C.; Cardoso, Fausto; Guerra, Jaime; Tenze, Alicia; Chuquiguanga, Cristina; Ordoñez, Alfredo; Castro, Juan D.; Maldonado, Valeria; Muñoz, Camila; Pogo, Marissa; Quizhpe, Ma. Augusta; Tenén, Tania. “Reseña Histórica.” In Campaña de Mantenimiento de las Edificaciones Patrimoniales de el Barrio de El Vergel_Calle de las Herrerías, 16. Cuenca: Universidad de Cuenca Facultad de Arquitectura y Urbanismo.
4. Orellana, Esteban. “Ministry of Housing & Urban Development” Lecture, Cuenca, Ecuador. March 5, 2018.

Reference Documents

1. Esteban Orellana, “Presentation of the Advances in the Guidelines by MIDUVI,” Presentation in Cuenca, March 5, 2018.
2. Pablo Barzallo, “The Conservation Plan for the Historic Centre,” Presentation at University of Cuenca, March 5, 2018.
3. Fausto Cardoso and Maria Cecillia Achig, “The City of Cuenca,” Presentation at University of Cuenca, March 5, 2018.
4. Gabriella Garcia and Jorge Amayu, “The Uses of Heritage,” Presentation at University of Cuenca, March 5, 2018.
5. Julia Rey Perez, Sebastian Astudillo, Maria Eugenia Siguencia, Juliana Forero, and Silvia Auquilla, “The Application of the Recommendation on Historic Urban Landscape (Hul) in Cuenca - Ecuador, A New Approach to Cultural and Natural Heritage,” edited by Julia Rey Perez, Cuenca, Ecuador: Universidad de Cuenca, 2017.
6. Gabriella Garcia and Jorge Amayu, “Historic Urban Landscape Study of Cuenca,” Presentation at University of Cuenca, March 6, 2018.
7. Mary Siguencia, Jorge Amayu, Gabriella Garcia, Fausto Cardoso, and students of University of Cuenca, “El Vado and Herrerias Neighborhoods,” Presentation at University of Cuenca, March 6, 2018.

Intangibles

1. Unesco. Intangible Cultural Heritage Section. Basic Texts of the 2003 Convention for the Safeguarding of the Intangible Cultural Heritage. Paris: Intangible Cultural Heritage Section, Sector for Culture, 2016.

Car dominated districts

1. European Commission Directorate-General for the Environment, “Finding Solutions,” in Reclaiming City Streets for People: Chaos or Quality of Life? (Luxembourg: Office for Official Publications of the European Communities, 2004), https://books.google.com/books?id=qcMJkAEACAAJ.
2. European Commission Directorate-General for the Environment, Reclaiming City Streets for People: Chaos or Quality of Life? (Office for Official Publications of the European Communities, 2004), https://books.google.com/books?id=qcMJkAEACAAJ.
3. Directorate-General for the Environment.
4. Ibid.
5. Jemilah Magnussson, “Santiago, Chile Improves Equity by Putting Pedestrians First,” Institute of Transportation & Development Policy, Sustainable Transport, Winter 2017, no. 28 (2017): 6–7.
6. “2017: Santiago, Chile.” Sustainable Transport Award. https://staward.org/winners/2017-santiago-chile/.
7. “Strasbourg, France: Creating Space for Sustainable Transport,” in Reclaiming City Streets for People: Chaos or Quality of Life? (Office for Official Publications of the European Communities, 2004), https://books.google.com/books?id=qcMJkAEACAAJ.
8. “Strasbourg, France: Creating Space for Sustainable Transport.”
9. Ibid.

Housing Diversity

1. Aviles, Damiana Isabel Pacheco, and Ximena Anabel Sarmiento Sanchez, "El Conventillo Como Tipologia de Vivienda en el Centro Historico de Cuenca: Propuesta de Intervencion Casa Armijos." Tesis previa a la obtencion del titulo de arquitecto, Universidad de Cuenca, 2015.
2. Rojas, Eduardo. "Quito: A Public-Private Partnership." in Old Cities New Assets: Preserving Latin America's Urban Heritage. Baltimore: The Johns Hopkins University Press and the Inter-American Development Bank, 1999.
3. Rojas, Eduardo. "Converging Interests of the Elite" in Old Cities New Assets: Preserving Latin America's Urban Heritage. Baltimore: The Johns Hopkins University Press and the Inter-American Development Bank, 1999.
4. Rojas, Eduardo, and Franceso Ianzafme, City development: Experience in the Preservation of ten World Heritage Sites. New York: Inter-American Development Bank, 2011.
5. Kimmons, James. "The Pros and Cons of Condo Ownership," The Balance Small Business, accessed April 16, 2018, https://www.thebalancesmb.com/condominium-2866377.
6. Rojas, Eduardo. "Converging Interests of the Elite" in Old Cities New Assets: Preserving Latin America's Urban Heritage. Baltimore: The Johns Hopkins University Press and the Inter-American Development Bank, 1999.
7. Rojas, Eduardo, and Franceso Ianzafme, City development: Experience in the Preservation of ten World Heritage Sites. New York: Inter-American Development Bank, 2011.
8. China and Mongolia Sustainable Development Unit, Sustainable Development Department, and East Asia and Pacific Region. Implementation Completion and Results Report (IBRD-47240) on a Loan in the Amount of US$133 Million to the People's Republic of China for Zhejiang Urban Environment Project. Washington, D.C.: The World Bank, 2011.

Commercial Diversity

1. "Policy Analysis Report: Analysis of Small Business Displacement," (City and County of San Francisco Board of Supervisors Budget and Legislative Analyst, October 10, 2014).
2. "Indian Minister of Textiles shares views on Crafts, ICH and sustainable development," United Nations; Educational, Scientific and Cultural Organization, https://ich.unesco.org/en/news/indian-minister-of-textiles-shares-views-on-crafts-ich-and-sustainable-development-00197 .
3. A. Anthony, SMEs in Indian Textiles: The Impact of Globalization in a Developing Market, (Springer, 2016).
4. "Legacy Business Registry and Preservation Fund," https://www.sfheritage.org/legacy/legacy-business-registry-preservation-fund/.
5. "SFCLT Overview," http://sfclt.org/SFCLT_Overview.
6. Sergio Ferragut and Georgina M. Gómez, "From the Street to the Store: The Formalization of Street Vendors in Quito, Ecuador," Securing Livelihoods: Informal Economy Practices and Institutions (2013): 11.
7. Ferragut and Gómez, 13
8. Ferragut and Gómez, 12
9. https://cuesa.org/about-cuesa
10. https://cuesa.org/article/cuesa-become-new-operator-mission-community-market
11. "Indian Textiles," Cultural India, http://www.culturalindia.net/indian-crafts/indian-textiles.html.
12. "Indian Minister of Textiles shares views on Crafts, ICH and sustainable development".
13. "Legacy Business Registry and Preservation Fund," https://www.sfheritage.org/legacy/legacy-business-registry-preservation-fund/.
14. "Sustaining San Francisco's Living History: Strategies for Conserving Cultural Heritage Assets," (San Francisco Heritage, 2014), 3-4.
15. "Legacy Business Registry and Preservation Fund," https://www.sfheritage.org/legacy/legacy-business-registry-preservation-fund/.
16. Ferragut and Gómez, 9.
17. Ferragut and Gómez, 10.

SOURCES

Building Obsolescence

1. Miller, Julia H. A Layperson's Guide to Historic Preservation Law: A Survey of Federal, State, and Local Laws Governing Historic Resources Protection. Washington, DC: National Trust for Historic Preservation, 2008.
2. National Research Council. 1993. Fourth Dimension in Building: Strategies for Avoiding Obsolescence. Washington, DC: The National Academies Press. doi: 10.17226/2124. https://www.nap.edu/read/2124/chapter/5#48
3. Razak, Arman Abdul, Nurul Zahirah Mohd Azizi, Mokhtar Azizi Mohd Din, and Nasyairi Mat Nasir. 2016. Recurring Issues in Historic Building Conservation. Procedia: Social and Behavioral Sciences. pp 587-595
4. https://ac.els-cdn.com/S1877042816302944/1-s2.0-S1877042816302944-main.pdf?_tid=b-49ca739-7261-4889-9d18-ee19631297ca&acdnat=1523213265_9d42609ce9e4fee86cc94d545593ad26
5. Rojas, Eduardo. Old Cities, New Assets: Preserving Latin America's Urban Heritage. Inter-American Development Bank. The Johns Hopkins University Press (1999).
6. The Three Types of Obsolescence
http://theagencydelivers.com/virtualoffice_files//three_types_of_obsolescence.pdf

Insensitive construction

1. Ahrens, et al. (2016) "Modern Architecture in Urban Heritage Areas: the Case of Quito." Urban Regeneration in Quito Final Report. University of Pennsylvania Graduate Program in Historic Preservation.
2. Rojas, Eduardo. Old Cities, New Assets: Preserving Latin America's Urban Heritage. Inter-American Development Bank. The Johns Hopkins University Press (1999).
3. Preservation Alliance for Greater Philadelphia (2007). "Sense of Place: Design Guidelines for New Construction in Historic Districts." http://www.preservationalliance.com/publications/SenseofPlace_final.pdf. Accessed:04-11-2018.
4. "Creating and Using Design Guidelines." National Park Services U.S. Department of the Interior. https://www.nps.gov/tps/education/workingonthepast/roletheyplay.htm. Accessed: 04-25-2018.

Vanishing Green Spaces

Beijing Sources:

1. Abramson, Danial. "Beijing's Preservation Policy and the Fate of the Siheyuan." Traditional Dwellings and Settlements Review, Vol. 13, No. 1 (FALL 2001): 7-22. http://www.jstor.org/stable/41757879. Accessed: 04-09-2018.
2. Tam, Ida D.K. Reconsidering Authenticity: Alternative Preservation Strategies for Siheyuan in Beijing. Ithaca, NY: College of Architecture, Art, and Planning, Cornell University, 2014.
3. Zhang, Donia. Courtyard Houses of Beijing: Lessons from the Renewal. TDSR Volume XXVI, Number 1, 2015: 69-82. http://iaste.berkeley.edu/iaste/wp-content/uploads/2012/09/2016/05/Zhang_27.1_TDSR.pdf. Accessed: 04-09-2018.

Impact Fee Sources:

1. "APA Policy Guide on Impact Fees." American Planning Association. Accessed April 19, 2018. https://www.planning.org/policy/guides/adopted/impactfees.htm.