

MINISTRY OF EDUCATION
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**MAINTAINING AND CONVEYING
THE SPECIFIC VALUES OF
URBAN ARCHITECTURE
DURING EXPANDING
THE EXISTING
HO CHI MINH CITY CENTRE**

MAJOR: ARCHITECTURE

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SUMMARY OF PhD DISSERTATION

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PREAMBLE

0.1. INTRODUCTION

The relationship of preservation and development is a dialectical issue during urban improvement and expansion. However, it contains inherent contradictions in many developing countries in Asia regardless of the risk of urban memory loss.

In recent years, the matters occurring from urban renewal and development in the existing centre of Ho Chi Minh City have required a comprehensive review on preservation. That vision has been reflected in the Revised Master plan of Ho Chi Minh City towards 2025.

The establishment of a dynamic balance between preservation and development shows high practicality owing to the planning in harmony with preserving and renewing the existing Ho Chi Minh City centre as well as with conveying it to the Thu Thiem New Urban Area. Seeking for proper measures to maintain and convey the specific values of urban architecture during expanding the existing Ho Chi Minh City centre is major for the research objectives of this dissertation.

0.2. RESEARCH OBJECTIVES

- Specifying the specific values of urban architecture of Ho Chi Minh City historic centre.
- Proposing the maintenance and conveyance of the specific values of urban architecture with such four measures as preservation, adaptive improvement, upgrade and renewal in the existing Ho Chi Minh City centre.
- Putting forward the conveyance of the values of urban architecture to the Thu Thiem New Urban Area.

0.3. RESEARCH OBJECT AND SCOPE

- The research object of this dissertation is the specific values of urban architecture of the existing Ho Chi Minh City centre, including architectural heritage and urban landscape architecture.
- The research scope of this dissertation includes the 930 ha existing centre of Ho Chi Minh City and Thu Thiem New Urban Area. All areas and boundaries of such two zones are in compliance with the detailed Master plans of the Thu Thiem New Urban Area and the existing Ho Chi Minh City centre.

Districts	Wards	Areas
930 ha EXISTING CENTRE		
District 1	Nguyen Thai Binh, Ben Thanh, Ben Nghe and Pham Ngu Lao Wards; partial Cau Ong Lanh Ward and Da Kao Ward	554.35 ha
District 3	Ward 6 and partial Ward 7	131.94 ha
District 4	Wards 9, 12, 13 and 18	112.11 ha
Binh Thanh	Ward 22 and partial Ward 19	128.65 ha
THU THIEM NEW URBAN AREA		
District 2	An Khanh, Thu Thiem and An Loi Dong Wards; partial Binh An Ward and Binh Khanh Ward	737 ha

- The research scope of this dissertation covers a defined period from *the end of the 17th century* (when the urbanization in Sai Gon was initiated) until 2025 (as per the Revised Master plan of Ho Chi Minh City towards 2025).
- This dissertation is conducted on the objects of tangible spaces in the existing Ho Chi Minh City centre. Any other content relating to

the values of economic, cultural and social spaces as well as to the values of traditional architecture, which were previously demolished or hidden in the process of urbanization in the existing centre is not considered the key object of this dissertation.

0.4. SCIENTIFIC MEANING AND PRACTICAL VALUES

All matters concerning architecture, urban design and preservation of urban and architectural heritages in the existing Ho Chi Minh City centre have been pointed out in some research works. The title of this dissertation inherits necessary scientific evidences from the relevant research works. Nevertheless, this dissertation is carried out by new approaches unlike any work, thesis or dissertation announced.

Scientific contributions and practical values of this dissertation consist of:

- Specifying the specific values of urban architecture of the historic centre of Ho Chi Minh City by referring to various data regarding cultural and historical contexts as well as existing state of the research object. The research object is analyzed in respect of the concept of expanded heritage, including architectural monuments and heritages as well as urban landscape architecture with component values diversified in terms of urban patterns and functions, public spaces and buildings.
- Proposing the method for evaluating the potentialities of the buildings and heritage areas with an objective scale of value and different criteria in conformity with the research object.
- Proposing the maintenance and conveyance of the specific values of urban architecture with different measures like preservation, adaptive improvement, upgrade and renewal.

- Executing the research in the existing Ho Chi Minh City centre during expanding and connecting to the Thu Thiem New Urban Area. This dissertation brings out the inheritance and enhancement to transmit the appropriate values of urban architecture to the Thu Thiem New Urban Area.
- Preserving the values of urban architecture in the course of urbanization becomes indispensable to urban management, especially the existing Ho Chi Minh City centre, which contain diversified characteristics of urban architecture over all development periods. The content of this dissertation involves many core and urgent issues as shown in the Revised Master plan of Ho Chi Minh City towards 2025, the Detailed Master plan of the 930 ha existing metropolitan area and the Action program for the preservation of urban landscape architecture in Ho Chi Minh City in 2013.

CHAPTER 1:

OVERVIEW OF RESEARCH PROBLEMS

1.1. SCIENTIFIC DEFINITIONS AND TERMS OF RELEVANT PROBLEMS

Specific values of urban architecture: Based on cultural and historical values, current state of the existing Ho Chi Minh City centre as well as research limitation, the specific values of urban architecture are determined by the following groups of object: *architectural heritage and urban landscape architecture* (including urban forms and functions , public spaces and buildings).

Monument conservation: It was detailed in the Law on Cultural Heritage of Vietnam in 2001 and acknowledged by the Venice

Charter for the Conservation and Restoration of Monuments and Sites in 1964.

Urban heritage preservation: It was given in 1970s and originated from the extension of the heritage concept. The main goal is to provide new regulations to specific objects, which have not been mentioned thoroughly in the Venice Charter.

Maintenance and conveyance: This is a combination of various measures, including preservation, adaptive improvement, renewal and reconstruction in the context of expanding the existing Ho Chi Minh City centre.

Maintenance is done by the *preservation, adaptive improvement and upgrade* of the monuments, architectural heritages and specific urban historic zones in the existing Ho Chi Minh City centre.

Conveyance means the inheritance and enhancement of the specific values of urban architecture and is done by the *adaptive improvement and upgrade* of the specific urban historic zones in the existing centre as well as by the *renewal* of the existing centre and Thu Thiem New Urban Area.

1.2. CHARACTERISTICS AND CHANGES OF TRADITIONAL URBAN ARCHITECTURE FROM MODERN URBANIZATION

Historical urban architecture in the pre-industrial period: It shows a long evolution to gradually adapt to natural environment and its functions. The result is the buildings in harmony with people and diversified, friendly and vital squares and streets.

Changes of historical urban architecture from modern urbanization: Urban architecture has changed absolutely almost according to fundamental materials, including transportation, sunlight, greenery and high-rise building and tended to reject the past heritages.

Changes of traditional urban architecture in Asia: The preservation of urban heritages in Asia copes with huge pressure from economic growth in most cases. It destroys the specific cultural values of old urban components and results in the risk of historical memory corrosion.

Traditional urban architecture in Vietnam: It embodies different components, which contain genuine urban and architectural heritages and adhere the internal sources of popular urban and architectural heritages.

Changes of Vietnamese urban architecture from modern urbanization: Urbanization in Vietnam was very slow during the second half of the 19th century. However, it rapidly created a huge positive impact on the specific urban architecture since 1990s.

1.3. URBAN ARCHITECTURE OF THE HO CHI MINH CITY HISTORIC CENTRE OVER THE DEVELOPMENT PERIODS

Development periods: Traditional urban architecture; French-dominated urban architecture; urban architecture in the period of 1954-1975; and urban architecture from 1975 to present.

1.4. NECESSITY FOR MAINTAINING AND CONVEYING THE SPECIFIC VALUES OF URBAN ARCHITECTURE DURING EXPANDING THE EXISTING HO CHI MINH CITY CENTRE

The preservation has not been made completely in the context of development in Ho Chi Minh City. Currently, applying the measures for protecting and promoting the City's specific values of urban architecture becomes a pressing demand.

1.5. RELEVANT RESEARCH WORKS

Overall assessments of relevant research works: All details of the relevant research works have manifested the diversity and complexity

of the dialectical issue “preservation during urban development”. The following is the information that has not gone into particulars in the research works:

- The objects of urban and architectural heritages, in many cases, have not been analyzed and evaluated systematically through a complete scale of value.
- Most of scientific grounds on preservation concentrate on the conservation methods for individual architectural monuments.
- Scientific grounds on restoration, renewal and modernization with the measures of architecture and urban design are unconnected, unsystematic and unproved from real experience.
- Actual grounds on restoration, renewal and expansion of the existing Ho Chi Minh City centre have not been indicated fully in the relevant research works.

1.6. KEY RESEARCH PROBLEMS

- Specifying the specific values of urban architecture of the existing Ho Chi Minh City centre by an objective scale of value in accordance with cultural and historical contexts and existing state.
- Proposing the maintenance and conveyance of the specific values of urban architecture with four measures, including preservation, adaptive improvement, upgrade and renewal (based on architecture and urban design).
- Putting forward the conveyance and enhancement of the values of urban architecture to transfer them to the Thu Thiem New Urban Area.
- Applying the research findings for some typical cases.

CHAPTER 2: RESEARCH METHODOLOGY AND SCIENTIFIC BASES FOR MAINTAINING AND

CONVEYING THE SPECIFIC VALUES OF URBAN ARCHITECTURE DURING EXPANDING THE EXISTING HO CHI MINH CITY CENTRE

2.1. RESEARCH METHODOLOGY

The research methodology comes from the awareness of urban architecture values, which are considered as not only preservation objects, but also development momentums. It's performed by three essential tools: *historical and logical methodology; survey methodology; and material and systemization methodology.*

2.2. SCIENTIFIC BASES FOR MAINTAINING AND CONVEYING THE SPECIFIC VALUES OF URBAN ARCHITECTURE UPON PRESERVATION AND ADAPTIVE IMPROVEMENT MEASURES

Architectural monument conservation: The Venice Charter 1964 determines the preservation of a monument implies protecting, but not changing, the features that reveal its aesthetic and historic values.

Critical additional information for conservation science:

The Burra Charter (Australia, 1979) specifies the cultural values of a place embrace not only the tangible elements, but also the contexts containing both tangible and intangible elements.

The Washington Charter 1987 states the quantities to be preserved in the historic towns and urban areas include urban patterns, open spaces, buildings, natural and man-made settings and urban functions.

The Nara Document on Authenticity describes the authenticity of a monument involves both tangible and intangible elements that suitable to the reality.

Urban heritage preservation: It basically aims at establishing a harmonization manner for preservation and development and requires

careful selection and combination to maintain the tangible structures of the heritages as well as restore, reuse and adapt the tangible and intangible values of such heritages to modern urban life.

Technical solutions may be applied in conformity with an uninterrupted and alternative process without “freezing” the heritages in the course of urban development.

Assessment method for urban heritage potentialities: The concept of expanded heritage leads to additional factors for assessing urban heritage potentialities. Assessment criteria reflect not only historical and artistic values, but also diversified potentialities in consistence with the particularities of each heritage place.

General measures for urban heritage preservation: They relate to law, planning, management and socio-economy and combine with various programs such as “gentrification”, “transfer of development rights”, “tourism development” and so on.

Difficulties and challenges of urban heritage preservation during urban development: The preservation of urban heritages must attach to the factors of economy, society, environment, etc. This combination actually causes many challenges, including “extremism” from protecting old buildings; evacuation of residents and their traditional means of living to other locations; “façadism preservation”; and so on.

Urban heritage preservation in Vietnam:

For 36 old streets in Ha Noi City, the preservation faces big challenges because the urban heritage values have not been acknowledged in correspondence with their nature.

For the Hoi An Ancient Town, the preservation does not turn the Town into a museum. It paves the way for the existence of the architectural heritages and continuous urban development.

2.3. SCIENTIFIC BASES FOR MAINTAINING AND CONVEYING THE SPECIFIC VALUES OF URBAN ARCHITECTURE UPON UPGRADE AND RENEWAL MEASURES

The warning lessons from the actual architecture and urban design during the Modernism in the 20th century had prepared the ground for new approaches. In the middle of the 20th century, finding out best measure for a more humane urban environment, which could convey the historical values, was a prerequisite for the growth of architecture and urban design in both logical and practical aspects.

Arguments of the functional diversity of urban architecture: Jane Jacobs emphasizes the meaning of diversifying urban buildings, residents, functions and activities. Christopher Alexander criticizes the absolute division of urban architectural functions.

Arguments of the identity of public spaces: Leon Krier, Jan Gehl and Rob Krier point out the meaning of inserting the characters of vitality, contiguity, human scale into the traditional public spaces.

Arguments of the diversity of urban architectural patterns: Jane Jacobs and Cullen stress the relationship of urban patterns and their contexts. Kevin Lynch finds out the elements creating the characteristics of urban image. Robert Venturi affirms the meaning of the architectural diversity. Aldo Rossi researches on transferring the traditional “DNA codes” of the places to the buildings.

Practical examples:

Buildings designed in the U.S and Europe by Aldo Rossi, Cullum, Nightingale, Levitt Bernstein, etc have proved the creativity of architectural languages and construction technologies when new buildings are built in the historical urban spaces.

The New Urban Charter summarizes the principles for protecting the continuity of urban development; encouraging walking and public transportation; setting up various land scales and using forms; improving quality of public spaces; and respecting the natural and cultural features.

In Asia, urban problems have not been solved thoroughly in the fast-growing cities. Therefore, defining appropriate urban architectural models should be analyzed by the measures that could harmonize the requirements on modernity and identity and actual local conditions.

2.4. SCIENTIFIC BASES OF HISTORICAL CHARACTERISTICS, CURRENT STATE AND DEVELOPMENT OF THE EXISTING HO CHI MINH CITY CENTRE

Specific urban culture in Sai Gon – Ho Chi Minh City: Cultural urban nature; cultural diversity of ethnic groups; cultural exchange and acculturation.

Natural and technological factors that affect urban growth in Sai Gon – Ho Chi Minh City: new land, favorable transportation conditions, reception and application of advanced scientific and technological achievements for urban growth.

Specific buildings and architectural types in the existing metropolitan area: vernacular urban architecture, western architecture, modern architecture and contemporary architecture.

Legal evidence for expanding the existing Ho Chi Minh City centre: Revised Master plan of Ho Chi Minh City general towards 2025, Detailed Master plan of the Thu Thiem New Urban Area and the existing Ho Chi Minh City centre.

CHAPTER 3: RESEARCH FINDINGS

3.1. DEFINING THE SPECIFIC VALUES OF URBAN ARCHITECTURE IN THE EXISTING HO CHI MINH CITY HISTORIC CENTRE

3.1.1. Architectural heritage values: They are reflected in valuable monuments and buildings:

- *Cultural communities:* Cultural hallmarks of such communities as Vietnam, China, Khmer, Cham, France, Chetty (India), etc in the overall architecture of the existing metropolitan area.
- *Architectural types and styles:* Typical hallmarks of vernacular urban architecture, western architecture and modern architecture.
- *Chronology, use and construction engineering.*

3.1.2. Values of urban landscape architecture: They are shown as follows:

- *Urban forms:* Street and city blocks are planned as the high-density and small-sized chess squares.
- *Urban functions and settings:* The functions are interlaced, so they offer the settings with full of vitality.
- *Public spaces:* Squares, parks and historical open spaces create remarkable urban architectural complexes, “green heritage” space axes and landscape hallmarks, leading to clear feelings of urban memory.
- *Buildings.*
- *Specific urban landscape architecture:*

Specific “districts”: French villa; green heritage from Tao Dan Park to April 30 Park; Cho Cu (Old Market); Ben Thanh Market; ancient citadel; Sai Gon Zoo and Botanical Garden; Chu Hoa villa; Ba Son Shipyard; Sai Gon Port.

Specific “paths”: Dong Khoi, Nguyen Hue, Le Loi, Ham Nghi and Le Duan Streets; some stages of Ton Duc Thang and Nguyen Binh Khiem Streets; East – West Avenue.

Specific “nodes”: Space clusters of Hoa Binh, Ho Chi Minh City People’s Committee and Lam Son Squares.

3.2. MAINTAINING AND CONVEYING THE SPECIFIC VALUES OF URBAN ARCHITECTURE IN THE EXISTING CENTRE UPON PRESERVATION AND ADAPTIVE IMPROVEMENT MEASURES

3.2.1. Orientations for maintaining and conveying the specific values of urban architecture in the context of continuous development: Executing different measures such as preservation, adaptive improvement, upgrade and renewal in respect of urban architecture and design.

3.2.2. Preservation and adaptive improvement measures for valuable monuments and buildings

- *National and city-ranked monuments* are protected pursuant to the Law on Cultural Heritage.

- *Valuable and unranked buildings*: They are classified and evaluated by 8 criteria (art, material, use, chronology, community, location, context and archaeology). Any building recognized as valuable will be preserved and adapted to new functions conformable to its tangible structure.

3.2.3. Preservation and adaptive improvement measures for specific urban landscape architecture

- *Classification and assessment of specific urban landscape architecture* are based on four criteria: urban patterns, urban functions

and settings, public spaces (square, park and open spaces) and buildings.

- *Engineering measures*: They include conservation, restoration, renovation, improvement and reconstruction. The main measure is to keep the integrity of original factors and perform certain interventions to adapt the heritages to the diversified settings of contemporary urban life.

- *General measures for implementing the preservation aims of urban landscape architecture*: These measures relate to law, management, interdisciplinary cooperation and socio-economy.

3.3. MAINTAINING AND CONVEYING THE SPECIFIC VALUES OF URBAN ARCHITECTURE IN THE EXISTING CENTRE UPON UPGRADE MEASURE FOR URBAN LANDSCAPE

3.3.1. Upgrade of streetscape

- *Renewing the appearance of street scapes* by preserving the diversity of architectural development periods; recovering the hidden, faded or changed characteristics; reducing the shape scales; and treating the architectural types of the improved, expanded or unaesthetic buildings to raise the historical continuity.

- *Enhancing the values of the street settings* by preserving the diversity of its functions and vitality as well as human scale in the street scape.

- *Improving the aesthetic quality* of the street scape.

3.3.2. Upgrade of public spaces

- *Squares*: They contain many outstanding monuments, so offering new buildings requires much attention to the quality of their architectural types to safeguard the artistic values of space complexes. Height of the buildings around the squares must not be restricted to

obtain natural sunlight. Functionally, walking networks connecting to the squares should be organized.

- *Parks and open spaces*: They need to be considered as green heritages, which contribute to the specific values of urban architecture of the existing metropolitan area. Types of open spaces are multiform, so they should be studied and integrated into the West bank of the Sai Gon River to emphasize the waterfront urban identity.

3.3.3. Upgrade of street and block networks

Protecting the characteristics of network composition, renewing the dense street blocks, providing additional green spaces and improving the spaces inside the street blocks to relieve construction density.

3.4. CONVEYING THE SPECIFIC VALUES OF URBAN ARCHITECTURE IN THE EXISTING CENTRE UPON RENEWAL MEASURE

3.4.1. Adapting the scales and forms of new buildings to the low-rise heritage areas in the existing historic centre

This measure does not mean the simulation or imitation of past characters. However, the inserted buildings have to be deemed as integral components for the whole area contributing to the specific values of the area. The harmony of scales and forms of new buildings are researched by particular factors, including dimension, land area, set back, roof type, the skyline of the entire area, color, denseness and porosity relation, division, height and number of floors, window ratio, details of main entrance, elevation of ground-floor.

3.4.2. Controlling the high-rise building scales

For the purpose of natural sunlight for the streets and height transition between new and old spaces, the following measures are utilized:

- Inserting height scales into new zones of the existing centre and Thu Thiem New Urban Area; minimizing the high-rises zones next to the existing historic centre.
- Giving the priority to developing the high-rise buildings by using open spaces with wide views.
- Ensuring the composition of the high-rise buildings within the clearly boundary zones without spreading.
- Motivating floor height in accordance with the TOD model.

3.5. CONVEYING THE SPECIFIC VALUES OF URBAN ARCHITECTURE TO THE THU THIEM NEW URBAN AREA

3.5.1. Selecting and conveying the proper values of urban architecture to the Thu Thiem New Urban Area

Opposite to the Sai Gon River, the Thu Thiem New Urban Area has a closed and integral relationship with the existing centre. Consequently, the Thu Thiem New Urban Area should not be developed separately like a cultural disruption, but tend to become a quality piece, which shows both the hallmarks of the urban architectural periods and uninterrupted linking in terms of space and culture to the existing centre through selecting and conveying the proper values of urban architecture.

3.5.2. Conveying the specific architectural values

Forms of heritage works are not the specific values to convey them to the Thu Thiem New Urban Area because this conveyance constitutes a reproduction of the architectural types of old Sai Gon for the spaces of the new centre. The diversity of functions, scales, techniques and architectural types are the specific values to be researched and conveyed.

3.5.3. Conveying the specific values of urban functions and landscape architecture

The diversity, vitality, contiguity, human scale from urban functions and settings, appearance of street landscape, existing squares, parks, etc are the specific values to be researched and conveyed to the Thu Thiem New Urban Area.

CHAPTER 4: DISCUSSION ON RESEARCH FINDINGS

4.1. APPLYING THE RESEARCH FINDINGS FOR DISCUSSING THE DETAILED MASTER PLAN OF THE 930 HA EXISTING HO CHI MINH CITY CENTRE

4.1.1. The specific values of urban architecture researched and described in the master plan: Maintaining urban forms, urban functions, squares and parks; proposing the preservation of urban and architectural heritages.

4.1.2. Proposing some supplements for the master plan

- *Supplementing and systemizing all the architectural heritage objects:* According to the assessment system with more comprehensive criteria, the archaeological heritages, typical vernacular rowhouses, Chetty buildings, Modern buildings and some specific urban historic zones must be supplemented.

- *Supplementing the regulations on height control to protect heritage spaces:* It embraces the areas surrounding the monuments, valuable buildings and key urban landscape areas. This is an evidence for the modernization of the existing centre while the special spaces of the low-rise heritage zones are preserved.

- *Supervising Floor Area Ratio (F.A.R) strictly:* The limit of 4.0 should be taken into account by gathering floor areas of all the lawful

projects. This demands reduction of the F.A.R of the land plots not provided with indices, or reduction of the indices of the lawful projects with incentives offered from the appropriate socio-economic programs.

- *Focusing on the waterway urban identity*: The places distant from the historical centers should be developed with higher floors and F.A.R. Ba Son Shipyard and Ho Chi Minh Museum need to be restricted with lower floors and F.A.R to maintain more riverside open spaces and contribute to the relief of the existing centre.

4.2. APPLYING THE RESEARCH FINDINGS FOR DISCUSSING THE DETAILED MASTER PLAN OF THE THU THIEM NEW URBAN AREA

4.2.1. The specific values of urban architecture researched and described in the master plan: Researching on the correlation of urban plan form and scale, the principles of functional zoning and integration from arranging land use, connecting to the existing area with transportation routes and landscape axes, preserving and recovering the waterway characteristics.

4.2.2. Proposing some supplements for the master plan

- *Proving the particular urban architectural periods*
- *Strengthening the contiguity and human scale*, adjusting the 20 ha central square upon diversified activities and in harmony with the human scale.
- *Organizing underground spaces and building heights in conformity with the TOD model*.
- *Researching on the diversity of cultures and resident communities* by additional research on cultural values in the Thu Thiem New Urban Area to plan as a diversified and characteristic resident community.

4.3. APPLYING THE RESEARCH FINDINGS FOR IMPROVING THE DESIGN QUALITY OF THE SAI GON PEARL PROJECT

4.3.1. Previous architecture and planning parameters of the Project: Major parameters, including floor area of over one million m², high-rise buildings as a whole and 70 storeys in total, previously were given to the Project.

A Detailed Master plan had been established with various scales without absolute storey height. Maximum height was reduced by about 50%, corresponding to a decrease of nearly 40% of total floor area.

4.3.2. Measures for improving design quality and conveying the specific values of urban architecture to the spaces of the Sai Gon Pearl Project

- *As to scales*, the Project is adjusted as various scales without absolute storey height. Maximum height is reduced by about 50%, corresponding to a decrease of nearly 40% of total floor area.
- *As to functions*, the Project is a complex with the diversity of residential types, levels and scales.
- *As to urban plan*, the Project has an uninterrupted transportation system. The scales of the trunk roads and street blocks are not large. All the buildings are suitable to street facades, creating a highly interactive city.
- *As to public spaces*, the Project is provided with types of public spaces along the Sai Gon River.
- *As to buildings*, the traditional architectural models are inserted into the Project as low-rise row houses to offer a familiar and friendly urban image.

- *As to landscape spaces*, the core measure is to make the storey height gradually low towards the Sai Gon River to safeguard the specific natural settings of the waterway spaces.

CONCLUSIONS

1. The specific values of urban architecture of the Ho Chi Minh City historic centre are represented by the inherent values and integral relationship of two groups of object below:

Architecture heritages show the diversified values of art, engineering, functions, chronology, locations, contexts, archaeology and cultural hallmarks of the communities. These values reflect the historical continuity during development, integration, cultural exchange and acculturation.

Urban landscape architecture shows the values of urban forms, urban functions and settings, public spaces and buildings. These values are manifested by the “districts”, “paths” and “nodes” with human scales, multiform types and clearly contiguous settings.

2. The existing Ho Chi Minh City centre is not only a place containing diversified values of urban architecture, but also a dynamic urban center. Maintaining and conveying the specific values of urban architecture in the context of development cannot be done with only preservation measure. The preservation of individual heritages misses out various values. The whole preservation is impossible because it stagnates urban life.

This dissertation proposes the maintenance and conveyance of the specific values of urban architecture based on such measures as *preservation, adaptive improvement, upgrade and renewal* to keep the

harmony of traditional and up-to-date structures during the continuous urban growth.

3. Selecting best measure is analyzed by taking the potentialities of the buildings and areas into account. This dissertation puts forward the assessment and ranking with an objective scale of value and four criteria to classify the specific urban landscape architecture as well as eight criteria to sort the buildings according to four levels.

4. The preservation measure is applied for the buildings type I and recognized monuments. The essential technical solutions include conservation and reinforcement to protect the maximum integrity of the buildings pursuant to the Law on Cultural Heritage.

5. The preservation and adaptive improvement measures are applied for the buildings types II and III and the specific urban landscape architecture of the existing centre. The preservation levels are based on combining different technical solutions to safeguard the original values through adapting the material structures of the buildings to new using functions in current period.

The preservation of the expanded “districts”, “paths” and “nodes” heritages becomes feasible with general solutions relating to planning, law and socio-economic programs to diversify the preservation resources.

6. The upgrade measure is utilized for the specific urban landscape architecture of the existing centre. This measure bases on the architectural solutions and urban designs to recover the hidden or faded characteristics to diminish the scales, handle the improper objects and enhance the perfect appearance, functions and space structures of the whole area. Such measure facilitates long existence of the architectural heritages in the integral relationship with the

streetscapes and public spaces as well as in the settings reflecting the harmony and historical continuity.

7. The renewal measure is determined as a dialectical demand in the context of dynamic growing of the existing metropolitan area. Nevertheless, the inclusion of new factors requires an appropriate treatment manner so that adding the chronologic elements to the overall urban architecture does not deteriorate the heritage values.

This dissertation brings out the measures that help adapt new buildings to the historical spaces through handling the issues regarding the correlation of building scale and type as well as supervision of storey height and architectural shape to assure a harmonious connection and provide a height transition between old and new spaces.

8. Making the Thu Thiem New Urban Area modern and unique is more possible because no transition or linking to cultural spaces is required.

However, this dissertation points out that the Thu Thiem New Urban Area, with its position opposite to the Sai Gon River, has a closed and integral relationship with the existing metropolitan area. Hence, it should not be developed separately like a cultural disruption, but tend to become a quality piece, which shows both the hallmarks of the periods and uninterrupted connection in terms of space and culture to the existing metropolitan area in the overall urban architecture.

9. Conveying (inheritance and enhancement) **the specific values of urban architecture to the Thu Thiem New Urban Area** is stated in this dissertation by selecting the values suitable to the current period and such area. Lessons from the diversity of functions, scales, engineering and types of buildings, contiguity, human scale of the

urban landscape architecture in the existing metropolitan area are the values inherited and conveyed to the Thu Thiem New Urban Area.

RECOMMENDATIONS FOR FURTHER WORK

1. Adding the relevant factors to the preservation of urban architecture play a critical role in inserting the preservation objects into the existing state and practical urban development in Ho Chi Minh City. The research problems have the scientific significance as below:

- Researching on climate change and its influences on the preservation of urban and architectural heritages in Ho Chi Minh City.
- Researching on broadening the planning, infrastructure and urban management and their affects on the historical urban landscape.
- Researching on widening the zoning of the specific urban and architectural heritage areas, urban functions and the preservation of urban and architectural heritages in line with sustainable cultural tourism development.

2. Researching on regulations and policies for the preservation is very imperative. Investments in the preservation of urban and architectural heritages must be supplied from the State and enclosed with the State's regulating measures as well as the contributions from localities, organizations, individuals and resident communities. Therefore, necessary programs and solutions should be worked out to diversify investment sources, provide preservation resources and balance the benefits of the State and people to realize all the preservation goals during urban growth.

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