

INFORMATION ABOUT THE NEW CONTRIBUTIONS OF THE THESIS

Thesis topic: **Adaptive conversion of old industrial works in the urban space structure in the inner city of Hanoi**

Major: Architecture – Code 9580101

PhD candidate: **Dinh Thi Hai Yen**

Academic Supervisor: **Prof. Dr. Nguyen Huu Dung**

Training Institution: Hanoi Architectural University

SUMMARY OF THE NEW CONTRIBUTIONS OF THE THESIS

1. Identify the characteristic value of old industrial works on the basis of awareness of meaning and assess the potential to preserve them in the urban space structure of Hanoi's inner city.

Value identification of old industrial buildings aims to protect the critical meaning and make it secure as well as the preservation of that value in any subsequent use, change and management. Thus, identifying the value of old industrial buildings is part of the conservation process. Based on the Burra Charter Process presented in chapter 2, the thesis proposes a conservation plan for old industrial buildings in the inner city of Hanoi through a process that begins with a meaningful understanding of the old industrial works, Next is to assess the conservation potential to identify their heritage values, as well as to have the necessary solutions/policies or guidelines to maintain and promote those values. Once a conservation plan is established, specific strategies or actions can be followed. It is important with management to do its best to convey the importance of what has been inherited to future generations.

2. Identify the four-step principle and process of adaptive transformation of old industrial works in the urban space structure in the inner city of Hanoi.

Old industrial buildings in the inner city of Hanoi are very diverse in size, quantity as well as location and are strongly affected by urbanization, types of urban reconstruction planning and programs from relocated production facilities. Therefore, in order for the adaptive transformation of old industrial works in the urban spatial structure of Hanoi's inner city to be highly effective, in accordance with the set goals, it is necessary to follow a certain process consisting of three steps: *(1) identifying the value of industrial heritage; (2) classification; (3) adaptive transformation of old industrial works in the urban space structure of Hanoi's inner city.* The identification of adaptive conversion criteria is the basis for the implementation of step 1 and step 2.

The thesis proposes a system of criteria that in turn caters to the steps in the adaptive transformation process. Starting, with the criterion of assessing conservation potential for the

identification of heritage value of industrial works and is one of 5 component criteria for the classification of adaptive transformation potential, including: *Heritage value; Location; Land use scale; Ownership; Land use functions according to planning*. Next, there are criteria for evaluating adaptive reuse potential for technical evaluation as well as transformational intervention design solutions, component criteria: *Physical (Lifespan); Economy (Location); Functionality (Level of flexibility); Technology (Energy); Sense of Place (Social); Quality Standards (Legal); Background (Politics)*.

3. Proposing solutions to adapt old industrial works in the urban space structure of Hanoi's inner city.

On the basis of the 3-step process, the thesis proposed solutions to adapt old industrial buildings in the urban space structure in the inner city of Hanoi. Based on 5 assessment contents, old industrial works are classified according to 3 levels: with high adaptive conversion potential; has medium adaptive conversion potential and has low adaptive conversion potential; thereby, there are conversion solutions adapted to each type.

The thesis approaches the strategy of *adapting old architecture with modern use*, aiming to restore the old structural layers of the city, brighten the black spots, restore the memories of Hanoi people of a bygone era – gradually transforming Hanoi city from a creative city, gradually becoming the creative center of the region and the world. The strategy of *adapting old architecture to modern use* has a broad role and significance; it basically involves proposing the integrity and harmony between historical and new architecture. The thesis proposes and analyzes five aspects that should be considered in proportion to adaptive transformation solutions: *continuity, form that follows change, materiality, sustainability and feasibility*.

The proposed solutions are studied and applied to the specific case of Gia Lam Railway Factory and referenced for the case of 185 old industrial projects in the inner city of Hanoi that have been surveyed, collected information and analyzed and evaluated. Applied research closely follows the thesis content, agreeing with the proposed views and solutions.

PhD candidate

Dinh Thi Hai Yen