

# A Study of the Qualification System for Skilled Labour in the Built Heritage Conservation Industry of Hong Kong

Mr LUI Wai Leuk, BSc (Hons) in Surveying, Faculty of Design and Environment

Supervisor: Sr TSE Tsz Chun Lawrence, Assistant Professor

## BACKGROUND



- 1,222 GB & 132 DM (AAB, 2023 ; AMO, 2022)
- 31 Specialist Contractors (DB, 2023)
- Heritage is **valuable** and **delicate legacy**
- **NO** qualification **requirements** on workforce & **Insufficient** qualification of workforce → Cause **disastrous results** on built heritages



**Research Question: Does HK requires the QS to ensure the performance of Built Heritage Conservation Project (BHCP)?**

## OBJECTIVES



- To **identify** the **problems** of the built heritage conservation industry
- To **evaluate** the **existing policies** and **guidelines** related to the workforce qualification of built heritage conservation projects
- To **determine** the **necessity** of labour qualification to ensure the **performance** of built heritage conservation projects
- To **provide recommendations** for developing the QS to **ensure the performance** of built heritage conservation projects

## LITERATURE REVIEW



### List of Approved Suppliers of Materials and Specialist Contractors for Public Works (The Specialist List)

- No. 28 – **Repair and Restoration of Historic Buildings**
- **Allowed** to carry out the preservation and conservation works (HKICHD, 2021)

### Trade Tests

- Launched by **Construction Industry Council (CIC)** from 2010 (Anson et al., 2021)
- Benchmarks of **skills** and **competency levels** of senior workers
- Certificates the **capability** to skilled labourers by **skills assessment**
- **NO trade tests** for works related to **heritage conservation projects**

### Significance of QS for Skilled Labour work in BHCP

- Mainstream NOT involved **the knowledge & skills** for BHCP
- As a **proof of knowledge & Skills** – Quality Assurance
- Optimum Performance – Do it right the first time
- Measurable & comparable** criteria on procurement
- Standard of skills set by **experts in the sector** – ensure the competence personnel (Gunthorpe, 2016)

### Successful factors on Heritage Skills CSCS Card Pilot Project in UK

- Critical Mass – **sufficient no. of labourers** are qualified (75-80%)
- Stated requirements on **tender & contract documents**

## RESEARCH METHODOLOGIES



1. Comparison Method		2. Stakeholder Interview		Job Position	Organization
Aim	To evaluate the <b>effectiveness</b> of different policies relating the QS for workforce	To understand the practices of conservation projects in HK and obtain the <b>consensus</b> of the QS for skilled labour		Maintenance Surveyor	HKICON
	Method	➤ Level of nature, target, requirements, Regulating actions, review period	➤ 2-Stages Policy ➤ Delphi Method ➤ Conducted 7 interviews with rich experienced experts	Maintenance Surveyor	ArchSD
Council Member				HKIS/BSD	
President				HBCA	
Project Manager				Kam Wui Decoration Limited	
Project Manager	LCMA & Associates Ltd.				
Director	Ang Studio Ltd.				

## FINDINGS

### Comparison of Different Policies Related to the Workforce

	The Specialist List (HK)	Trade Test (HK)	Heritage Skills CSCS Card Pilot Project (UK)
<b>Nature</b>	Mandatory for public works; Guideline for non-public works	Mandatory for public works;	<b>Mandatory for public works and private works</b>
<b>Target</b>	Specialist Contractors	Skilled Labourers	<b>Specialist Contractors &amp; Skilled Labourers</b>
<b>Requirements</b>	<ul style="list-style-type: none"> <li>✓ Work experiences</li> <li>✓ Experienced Management staff (FT) &amp; TS</li> <li>✓ Source of materials</li> </ul>	<ul style="list-style-type: none"> <li>✓ Work experience</li> <li>✓ <b>Skills</b></li> </ul>	Heritage Skills Construction Skills Certification Scheme (CSCS) card <ul style="list-style-type: none"> <li>✓ <b>NVQ Diploma in Heritage</b></li> <li>✓ <b>Recognised qualification for Craft / Conservation</b></li> <li>✓ <b>Practical Assessment</b></li> </ul>
<b>Regulating actions</b>	<b>Removal, Suspension, Downgrading or Demotion of Contractors</b>	N/A	N/A
<b>Review period</b>	Frequently*	5 years	5 years
<b>Effectiveness</b>	Low	Medium	High
<b>Limitation</b>	Only public works will be reflected	No trade related to heritage works	Require a “Critical Mass” of Qualified Labourer

### 6 Success Factors Affecting the Performance of BHCP

1 <sup>st</sup> Ranking	2 <sup>nd</sup> Ranking	Success Factors	Impactful	
			Mean	SD
1	1	<b>Competence personnel</b>	4.90	0.38
2	2	Training and recruitment	4.10	0.38
4	3	Shared values	2.40	0.53
3	4	Funds	2.30	1.11
5	5	Effective management system	1.00	0.00
6	6	Continuous care	0.30	0.76

### Ranking Problems of the Built Heritage Conservation Industry

1	<b>Young manpower shortage &amp; ageing problem</b>
2	<b>Lack of recognized training &amp; qualification system for workers</b>
3	Relativity Small Size of Market
4	Culture
5	Lack of Materials

## RECOMMENDATIONS

- **Statistics** of the Built Heritage Conservation Industry
- **Training** and **qualification** system
- The qualification assessments can be divided into two aspects: aesthetic and technical
- Educations for owners



## CONCLUSION

- Determine the **absent** and **needs** of the qualification system for skilled labour
- The **limitations** and **challenges** of the QS can be further studied for developing a recognized system