

Comprehensive Expert Validation Questionnaire

Esteemed

This document presents the validity assessment framework for a community-based survey designed to evaluate a series of proposed conservation interventions for the heritage site of **Khany Gawra in Koya City**, Kurdistan Region of Iraq (KRI). The primary objective of this validity testing is to examine the extent to which AI-Assisted classifications of conservation interventions correspond with established theoretical constructs. Specifically, the assessment aims to determine the accuracy, contextual realism, and theoretical coherence of AI-Assisted visual representations depicting 25 internationally recognized levels of architectural conservation intervention. The focus is on change rate more than the actual interpretation of intervention type.

Expert,

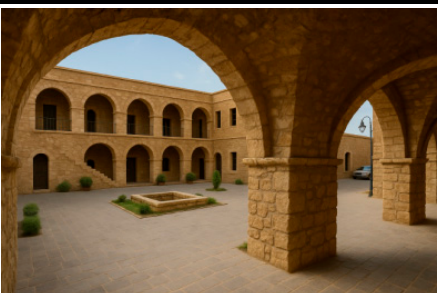
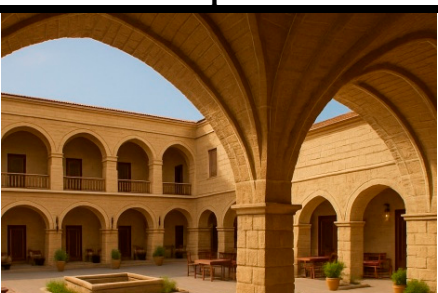


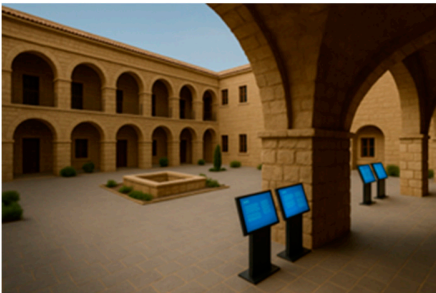
For each intervention image, please rate the following statement using the 5-point Likert scale

(1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree)

Code	Intervention Type	Evaluation Statement				
H1		The image accurately represents documentation of the existing condition without any physical or visual alteration.				
	Non-Intervention	1	2	3	4	5

H2		The image shows periodic observation and recording of building condition without visible intervention.				
	Monitoring	1	2	3	4	5
H3		The image illustrates preventive surface protection or weatherproofing without changing appearance.				
	Prevention	1	2	3	4	5
H4		The image demonstrates protection measures (e.g., barriers or coatings) that safeguard form and material integrity without altering design.				
	Protection	1	2	3	4	5
H5		The image reflects minor upkeep actions (cleaning, small repairs) while retaining all visual and structural features.				
	Maintenance	1	2	3	4	5
H6		The visual indicates structural reinforcement ensuring stability while keeping the façade and materials unaltered.				
	Stabilization	1	2	3	4	5

H7		The image maintains the building's original function with no modification to form, material, or layout.				
	Retaining Use	1	2	3	4	5
H8		The image shows interior adaptation for original or historic use while keeping the exterior intact.				
	Reintroducing Use	1	2	3	4	5
H9		The image depicts restoration of damaged parts using compatible traditional materials and methods.				
	Repair	1	2	3	4	5
H10		The visual restores missing or deteriorated elements to their authentic original condition.				
	Restoration	1	2	3	4	5

H11		The image illustrates functional upgrading (utilities, accessibility) while maintaining proportions and heritage character.				
	Rehabilitation	1	2	3	4	5
H12		The visual re-creates previously lost or altered architectural details consistent with original documentation.				
	Reinstatement	1	2	3	4	5
H13		The image integrates interpretive elements (signage, digital displays) without modifying structure or form.				
	Interpretation	1	2	3	4	5
H14		The visual shows subtle environmental or lighting improvements that emphasize the building's aesthetic without altering structure.				
	Enhancement	1	2	3	4	5
H15		The image reflects internal spatial reconfiguration for new uses, preserving the façade and exterior form.				

	Adaptation		1	2	3	4	5
H16			The image illustrates repurposing for new functions (e.g., cultural or commercial use) with maintained architectural identity.				
			1	2	3	4	5
H17			The visual depicts modernization of interior finishes and systems while retaining external authenticity.				
			1	2	3	4	5
H18			The image introduces significant additions or extensions that remain visually compatible with the original.				
			1	2	3	4	5
H19			The image reconstructs dismantled or displaced architectural components in their correct locations.				
			1	2	3	4	5
H20			The visual re-creates missing structural sections based on authentic design and materials.				

	Reconstruction	1	2	3	4	5
H21		The image reproduces the entire structure in another site or context using identical materials and proportions.				
	Replication	1	2	3	4	5
H22		The image adds new volumes or wings that harmonize architecturally with the original building.				
	Addition	1	2	3	4	5
H23		The visual relocates the building to a new setting while keeping form, dimensions, and materials intact.				
	Relocation	1	2	3	4	5
H24		The image shows dismantling of components for preservation and possible future reassembly.				
	Disassembly	1	2	3	4	5

H25		The visual represents new structural elements or façades that coexist respectfully with the original context.				
	New Construction	1	2	3	4	5

General Perception Questionnaire (Community Respondents)

Questionnaire Survey

Esteemed participant,

Thank you for agreeing to participate in this survey. The aim of this survey is to explore public preferences regarding the conservation of architectural heritage. As a participant, you will be presented with an authentic image of a historic building, along with several proposed design interventions. Your feedback will contribute valuable insights to guide future conservation and design strategies. Please be assured that all responses will be used solely for research purposes, and no personal data will be shared with third parties.

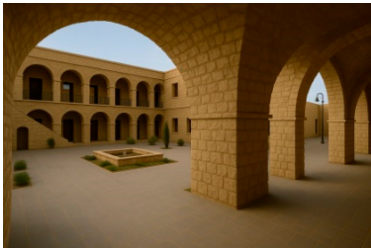
Demographics:

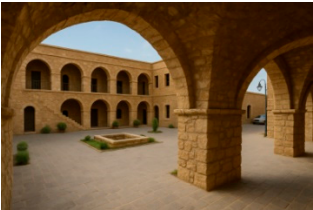
Age	☐ <25 ☐ 25–35 ☐ 36–50 ☐ 51+
Gender	☐ Male ☐ Female
Occupancy	☐ Architect ☐ Engineer ☐ Archaeologist ☐ Self-employed ☐ Student ☐ Other _____
Familiarity with the case	☐ Live nearby ☐ Work nearby ☐ Occasional visitor ☐ No direct connection
Interested in architectural heritage	☐ Yes ☐ No

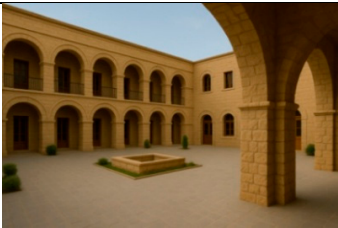
Proposals: Presented below are a series of proposed conservation interventions for the Khany Gawra heritage site located in Koya City, within the Kurdistan Region of Iraq (KRI). Participants are invited to evaluate each visual representation corresponding to these interventions, based on their individual perceptions and professional judgment. For each intervention you are asked to respond to 4 statements;

1. **Ethical Consideration:** This intervention demonstrates respect for the architectural and cultural heritage of the site.
2. **Aesthetic Evaluation:** This intervention is aesthetically pleasing and visually coherent.
3. **Functional Assessment:** This intervention effectively fulfils its intended functional purpose
4. **Community Support:** I would be willing to support the implementation of this intervention through a one-time contribution small amount of money.

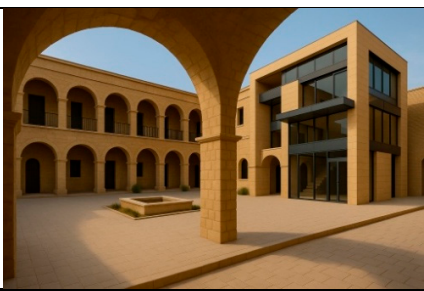
For each intervention image, please rate the following statement using the 5-point Likert scale (1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree)

Code	Intervention Type	Ethics	Aesthetic	Function	Support
H1					
H2					
H3					
H4					
H5					
H6					

H7					
H8					
H9					
H10					
H11					
H12					

						
H13						
H14						
H15						
H16						
H17						

					
H18					
H19					
H20					
H21					
H22					

					
H23					
H24					
H25					

Principal Component Analysis Loadings

Component Matrix ^a					
	Component				
	1	2	3	4	5
H4	0.752				
H3	0.708				
H12	0.703				
H8	0.695				
H5	0.693				
H7	0.692				
H9	0.670				
H6	0.667				
H2	0.655				
H17	0.652	0.532			
H15	0.650				
H13	0.641				
H14	0.620				
H10	0.618				
H20	0.605		0.509		
H19	0.600				
H11	0.594				
H16	0.577				
H21	0.540				
H22		0.734			
H24		0.672			
H25		0.658			
H23		0.634			
H18	0.540	0.601			
H1			0.524	0.582	
Extraction Method: Principal Component Analysis.					
a. 5 components extracted.					

Rotated Component Matrix					
	Component				
	1	2	3	4	5
H12	0.803				
H3	0.760				
H2	0.742				
H13	0.729				
H4	0.680				
H6	0.668				
H5	0.648				
H9	0.615				
H19	0.549				
H7	0.512				
H16					
H22		0.835			
H24		0.830			
H25		0.826			
H18		0.774			
H23		0.769			
H17		0.705			
H11					
H15					
H10			0.745		
H14			0.578		
H8			0.548		
H20				0.849	
H21				0.686	
H1					0.823
Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.					
a. Rotation converged in 24 iterations.					