ARAB NETWORK OF URBAN MORPHOLOGY

2nd Meeting Agenda

SEPTEMBER 2025

الشبكة العربية لمورفولوجيـــــا العمران

أجندة الاجتماع الثاني

سبتمبر ٢٠٢٥

WELCOMING NOTES (10 MIN)

Prof. Aliaa AlSadaty ANUM Coordinator

Prof. Giuseppe Strappa Isuf Regional Networks Coordinator

ترحيب بالحضور (١٠ دقائق)

أ.د. علياء الساداتي – منسق الشبكة العربية لمورفولوجيا العمران

أ.د. جيوزيبيه سترابا – منسق الشبكات الإقليمية للمُلتقى الدولي للتشكيل

OPENING SPEECH (15 MIN)

Prof. Dr. Attilio Petruccioli

Interpreting the Islamic Urban Fabric: the role of AI.

محاضرة افتتاحية (١٥ دقائق)

أ.د. أتيلليو بيتروشيولي

"قراءة في النسيج العمراني للمدن الإسلامية: دور الذكاء الاصطناعي"

ANUM PARTNERS PRESENTATIONS (40 MIN = 10 MIN X 4)

Prof. Dr. Chaham Alalouch

Sultan Qaboos University, Oman -The Eastern Arab Region

Dr. Zerouati Wiem

Setif 1 University, Algeria – The Western Arab Region

Dr. Imane Saidi

Independent researcher, Morocco – The Western Arab Region

Prof. Dr. Sahar Imam – Prof. Dr. Aliaa AlSadaty

Cairo University, Egypt – The Central Arab Region

كلمات الشركاء بالشبكة العربية لمورفولوجيا العمران (٤٠ دقيقة)

أ.م.د. شهم العلوش

جامعة السلطان قابوس، عمان - المشرق العربي

د. وئام الزرواتي

جامعة سطيف١، الجزائر – المغرب العربي

د. إيمان سعيدي

باحثة مستقلة، المغرب – المغرب العربي

أ.د. سحر إمام – أ.د. علياء الساداتي

جامعة القاهرة، مصر – المنطقة العربية الوسطى

Open Discussion and suggestions (20 MIN)

نقاش مفتوح ومقترحات (٢٠ دقيقة)

Cairo University

FACULTY OF ENGINEERING CAIRO UNIVERSITY

DEPARTMENT OF ARCHITECTURE FACULTY OF ENGINEERING - CAIRO UNIVERSITY

معمل التشكيل الحضري URBAN FORM LAB FACULTY OF ENGINEERING . CAIRO UNIVERSITY

Prof. Dr. Attilio Petruccioli

INTERPRETING THE ISLAMIC URBAN FABRIC: THE ROLE OF AI

2nd ANUM MEETING – September 2, 2025

This talk explores the role of Artificial Intelligence (AI) in architectural and urban design through the lens of typological processes, building on the theoretical frameworks of Muratori's school. Interpreting is the premise of the project and is based on History, understood as the reconstruction of transformative processes, in which the project's identity principles are embedded. It argues that the re-design of typological processes partially relies on statistical principles, which must be cross-referenced with often incomplete documentary data. While AI currently excels at organizing vast datasets and analyzing complex geometries through shape recognition, it lacks self-awareness and the ability to establish abstract conceptual links. Its machine learning capacities are constrained to speed and skill optimization, inevitably incorporating human biases and interpretive ambiguities.

The essay contends that AI can support the reading phase of design by combining computational tools to reconstruct typological patterns. However, its deployment must be critically supervised by a human architect, conceived not as a passive technician but as a culturally informed humanist capable of interpreting identity, history, and meaning. Drawing on examples from visual recognition frameworks (OpenCV, CNNs) and parametric design environments (Rhino, Grasshopper), the paper outlines how different tools can detect architectural patterns such as urban grids, symbolic orientations, and generative morphologies.

The work proposes a theory of AI as adaptive intelligence in design—one that does not merely simulate the designer but enhances human capacity to operate within shifting rules. Like a game with mutable boundaries, architectural design requires a continuous reinterpretation of the context. In this scenario, AI becomes a cognitive partner: not a rule-follower, but a co-explorer of possibilities.

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