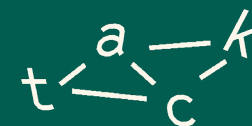


Bridging architectural knowledge and lived experience through apprenticeship

Teaching Module 7



This project has received funding from the European Union's Horizon 2020 research and innovation programme under the Marie Skłodowska-Curie grant agreement No 860413.



Communities of Tacit Knowledge
Architecture and its Ways of Knowing

Module Aims

To introduce the concept of “indwelling” as a key term for tacit knowledge in architecture

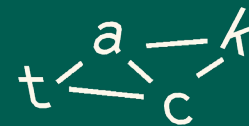
To elaborate on Michael Polanyi’s idea of a “heuristic tension” and demonstrate its central role in architectural knowledge

To present fundamental patterns of activity that trigger this tension, through the study of apprenticeship schemes and hands-on workshops in traditional building

To trace new directions of research on the “heuristic tension of indwelling” in the intersection of architectural theory and practice



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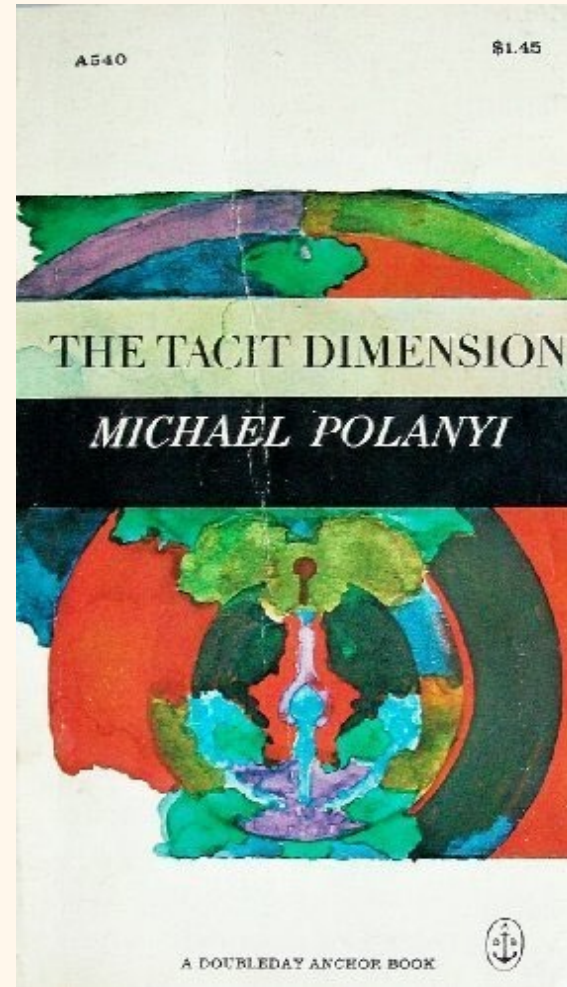
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Indwelling

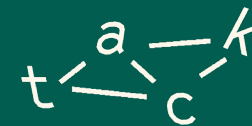
“It is not by looking at things but by *dwelling in them*, that we understand their joint meaning” (Polanyi, 1966, p18)

“I have spoken before of the way we interiorize bits of the universe, and thus populate it with comprehensive entities. The program which I have set up now would change this panorama into a picture of the universe filled with strata of realities, joined together meaningfully in pairs of *higher* and *lower* strata.” (Polanyi 1966, p35)

“To see a problem and undertake its pursuit is to see a range of potentialities, believed to be accessible. Such *heuristic tension* appears to be generated in the alert mind, much as forces in physics are generated by the accessibility of stabler configurations.” (Polanyi 1966, p89)



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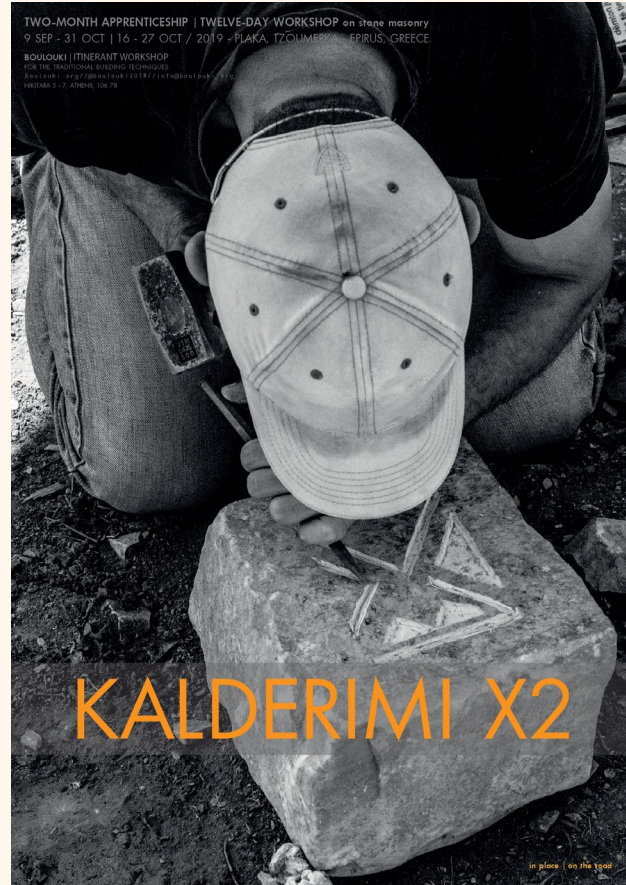
Indwelling

What does the concept of Indwelling stand for?

- With this term Polanyi emphasized the importance of **habitation** and **skill** in cognitive processes; of engaging with a subject in practice, in many ways beyond its cerebral examination.
- Such processes follow a movement **from** the particular aspects of a subject **to** its overall understanding as a comprehensive entity.

How does the “heuristic tension” of indwelling occur?

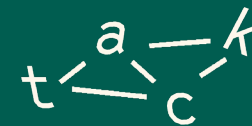
- It occurs through the interplay between **pre-conceptual kinesthetic experiences, intellect and imagination.**
- It is such interplay between embodied perception and imaginative articulation that leads the knowing subject to new **insights.**



Poster from the apprenticeship “Kalderimi X2” organized by Boulouki in Tzoumerka (Epirus, Greece) in autumn 2019. Photo by Pietro Radin.



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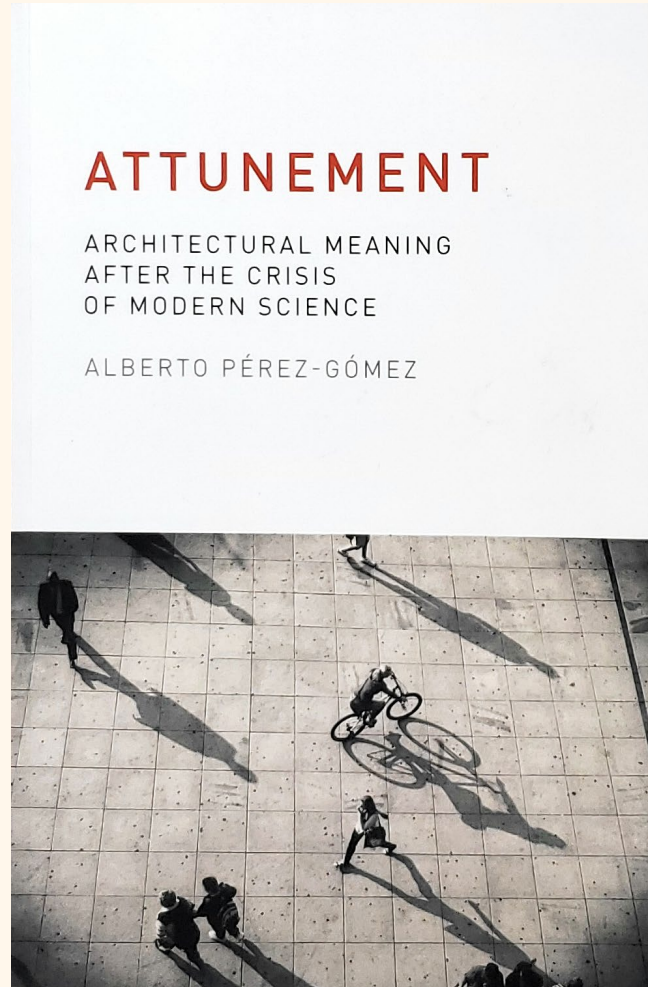


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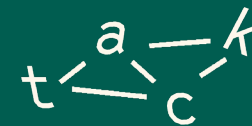
Attunement

“Deploying arguments from the fields of phenomenology and recent neuroscience, I explore the primacy of synesthesia on human consciousness and the ... inextricable links between a *primordial synesthetic perception* and *emerging language*.”
(Pérez-Gómez, 2016, p11)

“The traditional view of perception operative in all *premodern architectural theories* (one that was “musical” and primarily synesthetic, and that espoused harmony as a central architectural value), is vindicated by the recent understanding of the senses as “modalities” that transgress their functional boundaries.”



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Attunement

What does the concept of “attunement” describe in architecture?

- Architectural works as sites of attunement means places that **help human beings partake** in “a communicative movement from pre-reflective awareness to reflective wonder.”
- Places that provide **enabling conditions** for the heuristic tension of indwelling to emerge.

How can we move deeper into the potential of architecture to encourage heuristic tension?

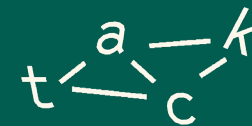
- ‘Traditional’ architectural theories and ‘vernacular’ forms of knowledge retain manifold ideas on the **mediating role** of the built environment.
- They may thus deepen our understanding of how builders and architects have historically endowed their works with the ability to **encourage the growth of heuristic tensions**.



Detail of the kalderimi (cobblestone pathway) constructed during the apprenticeship. Photo by Grigoris Koutropoulos



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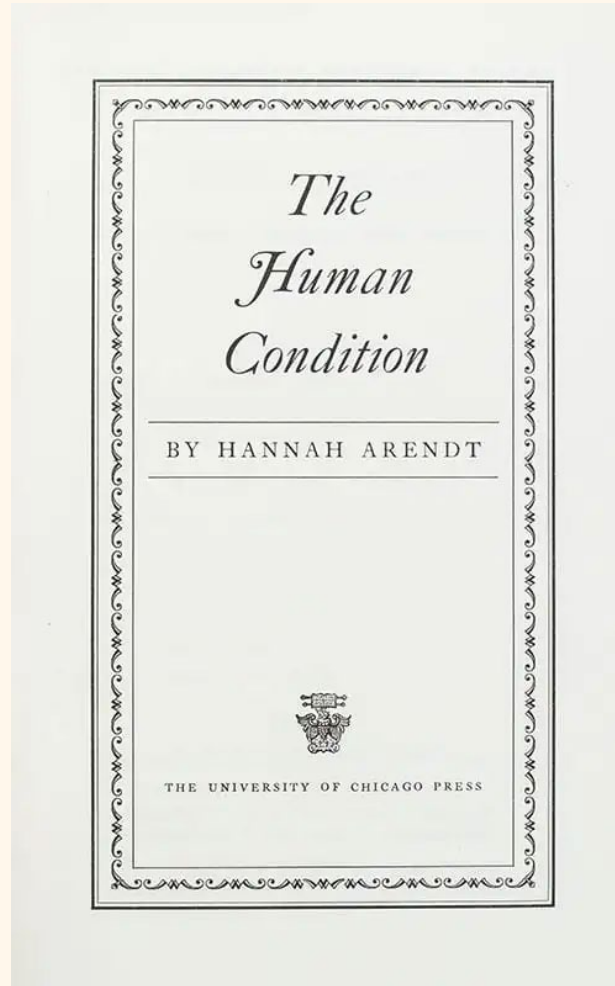


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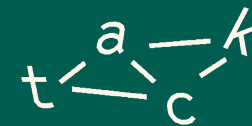
Patterns of activity

“With the term *vita activa*, I propose to designate three fundamental human activities: labor, work, and action. They are fundamental because each corresponds to one of the basic conditions under which life on earth has been given to man.”

“Labor assures not only individual survival, but the life of the species. Work and its product, the human artifact, bestow a measure of permanence and durability upon the futility of mortal life and the fleeting character of human time. Action, in so far as it engages in founding and preserving political bodies, creates the condition for remembrance, that is, for history.”



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Patterns of activity

What patterns of human activity can we draw from the thought of Hannah Arendt?

- **Labor** refers to the recurring processes needed to sustain life as biological existence, **Work** to the construction of the world of artifacts, **Action** to deeds and discourses that set in motion chains of events.

Why does this tripartite distinction help us to study indwelling in architecture?

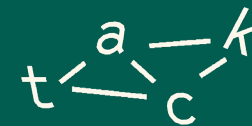
- Because it provides **specific yet broad categories** with which to examine different patterns of human activity in the **making and use** of the built environment.
- It thus allows to observe the interplay between physical, symbolic and discursive levels; to trace more closely the **articulation of the heuristic tension** of indwelling.



Labor, work and action in apprenticeships and hands-on workshops organized by Boulouki in the region of Epirus.
Photos by Eleni Mitropoulou and Pietro Radin



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Apprenticeship

Vocational training and in particular apprenticeships in ‘traditional’ building crafts provide an environment where such patterns of activity can be carefully studied.

As learning is closely interwoven with practice, one can observe how:

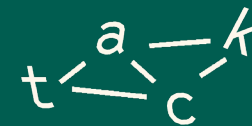
- situations of labor, work and action play complementary roles to the formation of knowledge - the heuristic tension in processes of learning
- the work itself is gradually shaped to mediate different dimensions of human life and to encourage responses between them - the heuristic tension in the use and reception of space



Transferring material by hand, practicing technique and discussing at the “Reappearances” project (2020), organized by Boulouki.



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Apprenticeship

Daily routines of labor related to the function of the construction site

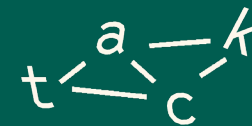
- help to establish a more-than-verbal communication between the team of builders
- On the basis of such communication, elements of knowledge are already transmitted, which will be further cultivated in the concentrated hours of work.
- The experience of labor highlights the importance of the collective making (and care) of the built environment.
- It thus points to architectural theories that focus on contexts in which the making, use and reception of space are performed by the same groups or people.



Labor and the activation of tacit knowledge. Collage-Drawing by Ionas Sklavounos
*photos by: Pietro Radin



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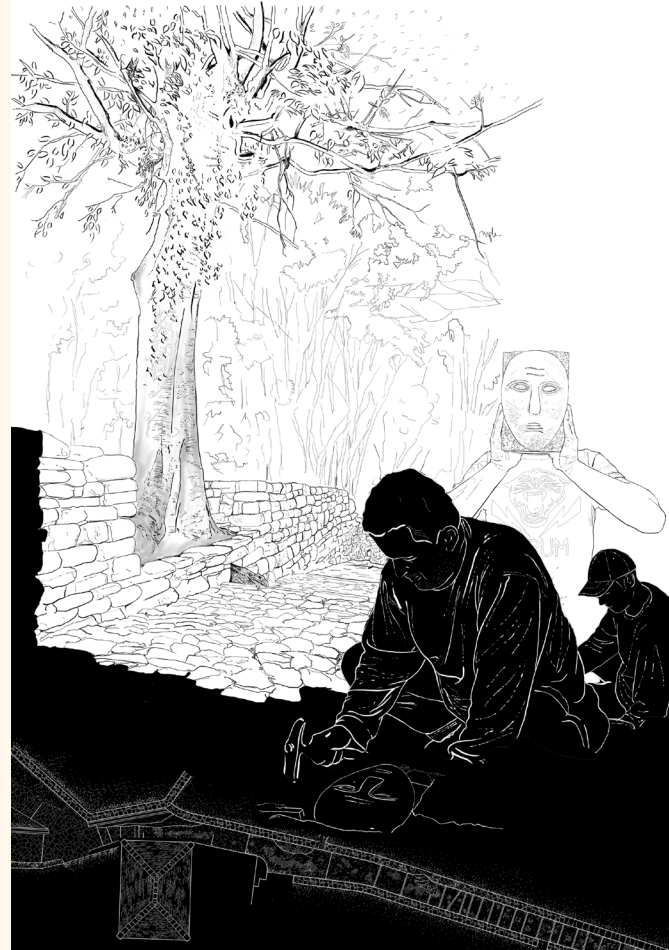


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Apprenticeship

Concentrated hours of work, practicing specific skills and solving specific problems

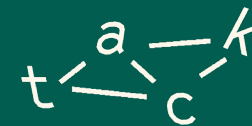
- Are governed by the pursuit of discernment, initially centered on understanding the raw material and its inherent properties.
- Such discernment is gradually extended to harvesting the potential of the physical and cultural context.
- The experience of the work illuminates the significance of contexts and how they provide clues to the directions that building and design should follow.



'Master-mason' and apprentice, pursuing discernment. Collage-Drawing by Ionas Sklavounos
*photos by: Pietro Radin, Anna Lagaria, plan by Grigoris Koutropoulos



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Apprenticeship

Cultural activities (discussions, feasts, etc.) present themselves as moments of action (encounter and negotiation), insofar as they **trigger debate** around the **ideas and values** underlying the work.

They are characterized by the **emergence of stories** and the cultivation of a **narrative sensibility**. The implications of such narrative and metaphorical modes of thinking are manifold:

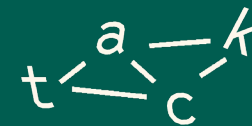
- They act as catalysts for bridging **accumulated experience and new understandings** towards new insights.
- They push the builders towards **figurative representation**, which in turn unlocks the communicative and affective power of the work.
- They invite architects to reassess the importance of **ornament and iconography**, and their relationship to the expressiveness of structure (tectonics).



Narrative and figurative representation in "Kalderimi X2". Collage-Drawing by Ionas Sklavounos
*Photos by Pietro Radin and Ionas Sklavounos, axonometric by Grigoris Koutropoulos



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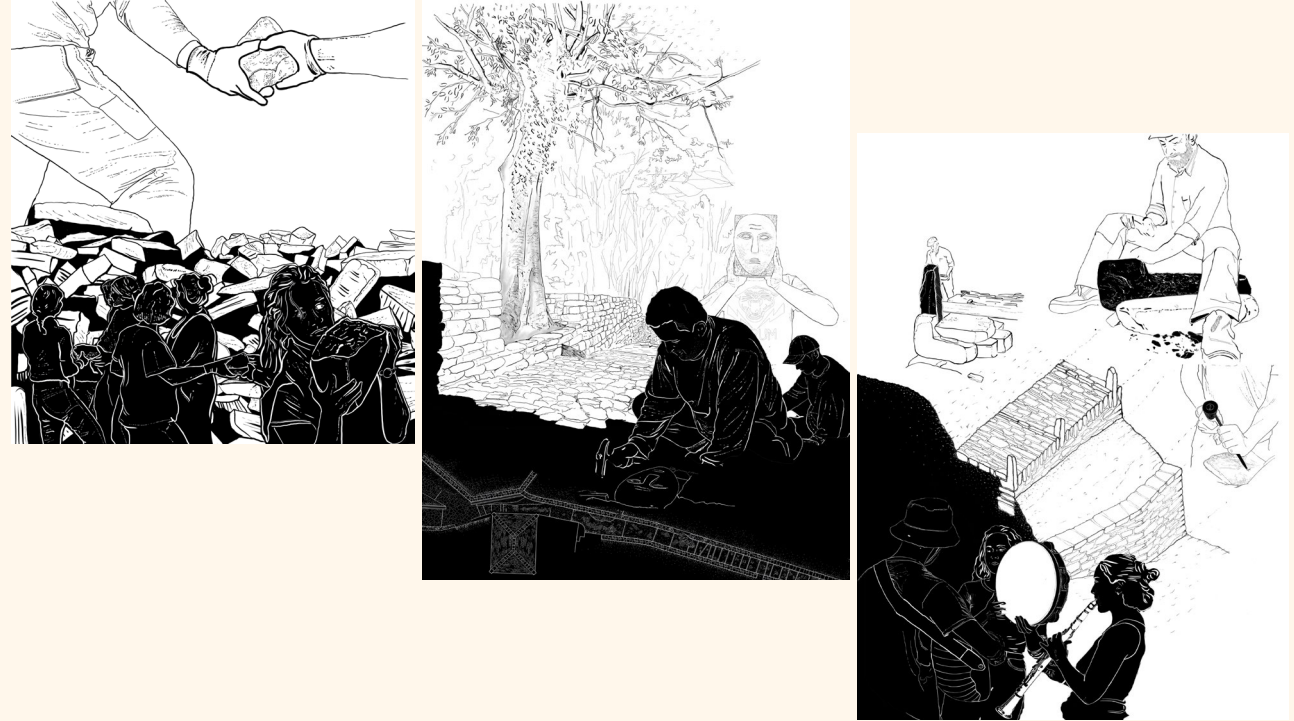
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Theory and Practice

Research on tacit knowledge in architecture can benefit from **assigning equal importance** to daily routines of labor, concentrated hours of work, and moments of concerted action.

Such a threefold approach allows to trace how different activities play **complementary roles** in constituting the tacit knowledge of builders, especially around the ability of architecture to mediate between physical dispositions and discursive or imaginary dimensions.

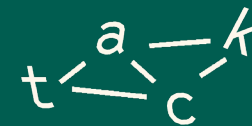
Moreover, it enables us to move deeper into how the **knowledge of building** is not independent of the **lived experience of the built environment**; how it is informed by different experiences of the world, and how it can in turn anticipate meaningful correlations between them.



Building Insights in "Kalderimi X2". Collage-Drawing by Ionas Sklavounos



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Theory and Practice

Ideas such as ‘indwelling’ and practices such as apprenticeship provide an **enriching perspective** on architecture theory.

The different approaches to tacit knowledge presented through apprenticeship reveal various expressions of ‘knowing’. While these are **not all codified in the theories** of architecture, they are part of the lived experience of space.

Such insights drawn from practice can shed new light on obscure aspects of architectural theory and lead to new conceptualizations, thus opening **new directions for architectural research** at the intersection of theory and practice.



Vita Activa

Labor, Work, Action

H. Arendt, *The Human Condition* (1958)
P. Ricoeur, "Action, Story and History: On Re-Reading The Human Condition" (1983)
K. Frampton, *Labor, Work and Architecture: Critical Essays 1968-1982* (1985)

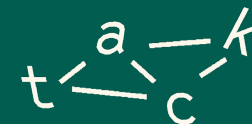
Architectural Theory
Codified knowledge systems
Regimes of architectural knowledge



Apprenticeship alongside disciplinary knowledge. Collage by Ionas Sklavounos, photo by Pietro Radin



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