

Epistemic Design: DEMA and the Condition of Thinkability Before Form

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Design operates before form. Form marks the moment in which configurations consolidate into consequences. Form coincides with relational stabilization. The project intervenes before, during, and after such stabilization: it does not begin from the object, but from the condition that render relations thinkable. It situates itself in the threshold between what is visible and what may emerge, transforming possibilities into decisions before they become necessities. For this reason, design is both epistemic and ontological: it produces knowledge while reconfiguring relational fields.

We call Spatial Thinking the temporal structure that renders this position intelligible. Spatial Thinking does not describe space as an object. It defines the temporal-relational field within which design takes position. It does not indicate linear phases, but coexisting postures through which design orients itself among possibility, action, and consequence. These are not successive phases, but coexisting epistemic positions:

Envisioning — an *ex-ante* condition that anticipates configurations before they stabilize.
Sensing — an *in-fieri* (in the making) condition that registers dynamic and invisible dimensions — sound, light, odor, presence — as relations are forming.
Assessing — an *ex-post* condition that analyzes already stabilized configurations.

Within this field, DEMA (Displace, Expose, Mediate, Activate) articulates its structural operations, rendering this structure readable and operable. DEMA names four epistemic actions that emerged as the formal articulation of recurring operations across sixty-one projects developed by Conceptual Devices.

DEMA is not a method and does not define a sequence. It is the formalization of an operative pattern through which design intervenes in spatial relations. DEMA can be used to analyze stabilized forms and to explore possibilities prior to their formalization. It generates condition of thinkability *ex-ante*, *in-fieri*, and *ex-post*.

Epistemic Design designates a practice that operates on the structure of relations as they constitute themselves, stabilize, and produce consequences.

The position articulated here enters into dialogue with traditions that have understood space as socially and relationally produced, and practice as a situated form of knowledge. If Henri Lefebvre demonstrated that space is not a neutral given but a historical production, and if reflection on practice clarified that knowledge emerges in situated action, Epistemic Design makes explicit the operational condition in which such insights become practicable within design.

It does not extend a theory of space nor apply an epistemological model to design. It clarifies the structure within which design already operates when it consciously assumes its implication in the relations it transforms. In this sense, Spatial Thinking does not introduce a new disciplinary object, but reformulates the position of design in relation to the production of thinkability.

DEMA emerges from this field as the formalization of operations already intrinsic to spatial practice. It does not add a technique: it makes a structure explicit and delineates an operative disciplinary field.

1. The Epistemic Position

Design is understood here as a non-neutral practice of epistemic transformation. Its outcomes generate spatial and relational consequences.

Design produces fields of thinkability that operate before, during, and after the stabilization of form. Each stabilization defines a configuration and, at the same time, excludes other possibilities. Every epistemic configuration produces ontological effects: it renders certain relations real and excludes others.

As an epistemic practice, design recognizes that every intervention is situated within the conditions it itself generates. It cannot detach itself from its relational field, nor suspend its implication within it.

Design operates among possible, unfolding, and defined conditions — ex-ante, in-fieri, and ex-post — moving within the threshold between what is visible and measurable and what has not yet taken form.

2. Spatial Thinking

Spatial Thinking is commonly associated with a technical competence related to orientation, visualization, and description of space. Within Epistemic Design, it assumes a different meaning. In this conception, Epistemic Design redefines the role of design in relation to the production of thinkability.

Here it designates a reflective competence capable of defining and intervening in temporal-relational fields of thinkability, in which space is not given but produced. Design practices are positioned within the conditions they themselves generate.

In dialogue with Henri Lefebvre's conception of space as socially produced, Spatial Thinking is reformulated as a relational epistemic field that orients the disciplinary positioning of design. If Lefebvre described the production of space, Spatial Thinking articulates the production of thinkability within spatial practice: the way relations become operative.

The diagram in Fig. 1 maps three epistemic fields corresponding to three moments of relational stabilization of form:

Envisioning (ex-ante): anticipates configurations not yet determined.

Sensing (in-fieri): operates in the threshold as situations unfold, attending to impressions, feedback, and shifts emerging in action.

Assessing (ex-post): reexamines what has already produced effects, repositioning knowledge in light of consequences.

These fields do not follow a linear sequence. They coexist. Design moves among them, modifying its position as conditions emerge, stabilize, and sediment.

As a relational field, Spatial Thinking does not privilege one discipline. It establishes a shared epistemic terrain structured by temporal position rather than disciplinary

boundaries. What differentiates spatial practices is not object or scale, but their position within the threshold between what is visible and what is not yet articulated. The object of Epistemic Design is not form in itself, but the configuration of relations that make form possible.

From this field of thinkability, and from the analysis of the sixty-one projects developed under Conceptual Devices, DEMA emerges as the formal articulation of an epistemic operational pattern intrinsic to spatial practice. DEMA formalizes this pattern without prescribing a method.

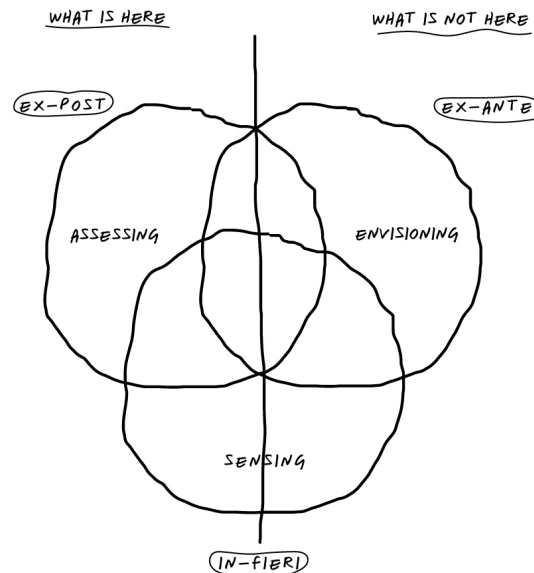


Figure 1. Spatial Thinking as a threshold condition structured actual / not-yet-articulated, and by three epistemic fields: ex-ante, in-fieri, ex-post.

3. The Archive: Conceptual Devices

An archive of sixty-one projects developed over twenty-five years by Conceptual Devices was analyzed in relation to their positioning within the threshold condition defined by Spatial Thinking.

The analysis showed that continuity among projects does not reside in form, but in the coherence of the epistemic position assumed. Practice does not unify through style, but through a consistent way of understanding design as a form of knowledge.

The articulation of Spatial Thinking made this epistemic structure explicit. Across different projects, Conceptual Devices repeatedly: redefined stabilized situations (Displace); made latent relations visible (Expose); mediated forms of knowledge across different epistemic fields (Mediate); activated operative conditions capable of producing concrete effects (Activate).

In these processes, the material and immaterial forms constituting projects are not reducible to isolated objects. They operate as activators of epistemic and relational fields.

This articulation emerges from the practice of Conceptual Devices and clarifies the structural condition within which that practice operates.

4. DEMA

The analysis of the archive, reread through the threshold defined by Spatial Thinking and the three temporal epistemic fields, rendered thinkable four recurring operations: Displace, Expose, Mediate, Activate.

Although they emerge from the archive with a certain sequence of incidence, this does not imply fixed temporality. The operations do not constitute a mandatory succession. They occupy situated positions within the threshold topology. The threshold is not a boundary. It is the relational interval in which stabilization has not yet become irreversible.

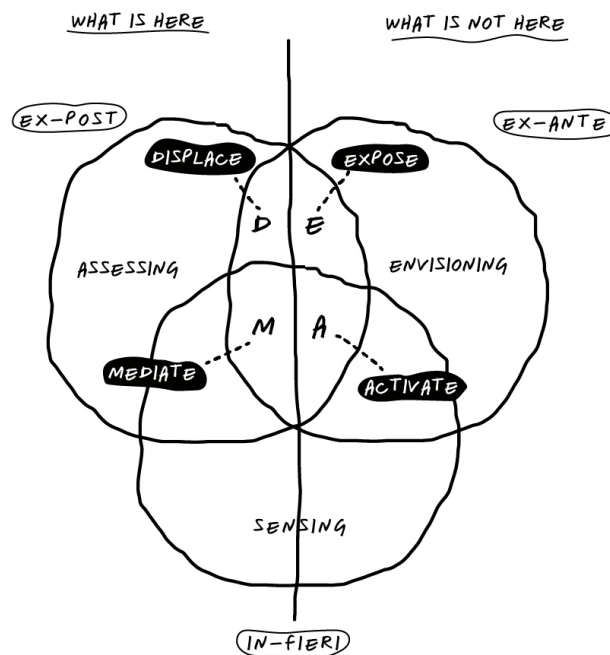


Figure 2. DEMA articulated within Spatial Thinking. The four epistemic operations occupy situated positions in the threshold topology.

Displace

Operates ex-post, where conditions have stabilized and appear self-evident. It situates itself in the threshold between assessing and envisioning, repositioning the evaluation of what has already produced effects.

Displacement does not introduce new content. It shifts the frame through which a situation is understood. It reveals the contingency of what appeared necessary. By altering position rather than substance, it reopens the field of possibilities from within the actualized.

Expose

Operates ex-ante, in the threshold between envisioning and assessing. It gives form to configurations not yet stabilized, rendering new possibilities operative.

Exposure does not invent relations. It configures their appearance. It makes them visible and practicable without fixing them into irreversible forms.

Mediate

Operates ex-post, in the threshold between sensing and assessing, where consequences are stabilized but still experientially active.

It maintains tension between evaluation and perception. It enables transfer between different forms of knowledge coexisting within a shared epistemic field. It does not eliminate difference. It structures their continuity and critical transferability.

Activate

Operates ex-ante, in the threshold between envisioning and mediate, where configurations of thinkability orient action.

Activation transforms a structured possibility into operative direction. It establishes conditions of agency without predetermining outcome. Possibility acquires force while maintaining openness to variation.

5. Before, During, and After Form

Design is often evaluated once consequences have become visible and stabilized. Yet the epistemic conditions articulated here suggests that design operates configurations of thinkability before, during, and after stabilization consolidates positions and narrows the field of possibility.

By defining Spatial Thinking as a temporal-relational structure and DEMA as the formal articulation of recurring epistemic operations, the focus shifts from outputs to positioning. What matters is not only what design produces, but how it situates itself within the threshold between what has already produced effects and what has not yet taken form.

Irreversibility marks the consolidation of relations once the field of thinkability has narrowed. The critical terrain of design lies prior to that consolidation — not outside consequence, but within the conditions through which consequence becomes structured. Form coincides with relational stabilization; the project operates before, during, and after such stabilization.

Responsibility, therefore, does not reside only in finalized outcomes, but in the positions assumed while configurations remain open to articulation. At this level, the question concerns the structure of design action, not yet its transmission or pedagogy.

6. DEMA as Combinatorial Apparatus

The epistemic actions of DEMA do not operate as a fixed sequence. The order of the letters does not imply progression, hierarchy, or completion. Each action occupies a situated position within the threshold topology defined by Spatial Thinking, but their activation is neither linear nor predetermined.

DEMA operates through configurations. A project may activate one action, multiple actions, or all four. Activations do not follow procedural logic. They generate specific epistemic positions within the threshold between the actual and the not-yet-articulated.

A configuration such as D–E–A produces a different posture from A–M or M–D–E. Each arrangement reconfigures the relation between what is stabilized, what becomes perceptible, what is held in tension, and what becomes activatable.

Considered as discrete operators, the four actions can be formalized combinatorially. As recombinable elements, they generate sixty-four possible ordered configurations. The combinatorial structure is not illustrative. It is constitutive of the epistemic field articulated here. As ordered permutations they generate:

- 4 single-action configurations
- 12 two-action configurations
- 24 three-action configurations
- 24 four-action configurations

In total, DEMA allows sixty-four distinct operative sequences.

These sequences do not represent developmental stages, degrees of completion, or methodological steps. They describe possible epistemic trajectories through which design positions itself within the threshold condition. Each configuration modifies the balance among envisioning, sensing, and assessing, producing different disciplinary postures.

The combinatorial structure does not make DEMA normative. It does not prescribe how design should proceed. It defines a structured yet open field of possible activations.

Because its elements are finite yet recombinable, DEMA functions simultaneously as: an analytical device for reading existing projects; a generative apparatus for instructing new projects. The structure is finite in its components and expansive in its configurations. As formal structure, it is transferable beyond the context from which it emerged.

In this sense, DEMA operates as a combinatorial epistemic apparatus: a system that clarifies how design can act within the threshold between the actual and the not-yet-articulated without reducing such action to a procedural model.

7. Epistemic Design

This work does not intend to found a new general theory of design, but to make explicit an operative structure already active in practice. If DEMA clarifies the structure of design action, its formative and professional implications remain to be considered.

By formalizing Displace, Expose, Mediate, and Activate as situated operations and clarifying their combinatorial structure, Epistemic Design does not configure itself as linear progression, but as configurational positioning. The sixty-four sequences generated by DEMA do not prescribe paths; they describe an open field of operative possibilities.

In this perspective, Epistemic Design, operating within the threshold defined by Spatial Thinking, is not defined by the forms it produces but by the positions it assumes while configurations remain structurally open. If Spatial Thinking delimits the threshold within which design operates, DEMA clarifies the modalities through which operations articulate within it.

Authorship does not reside solely in outcomes, but in the interval preceding stabilization. It manifests in the interval preceding stabilization, when relations have not yet consolidated into irreversibility.

This articulation does not originate in a theoretical preference. It arises from the relational nature of contemporary conditions, in which material, social, and technical decisions produce systemic effects. In contexts characterized by high material, social, and technological interdependencies, the consequences of design decisions do not remain local: they propagate. Every intervention situates itself before configurations stabilize; recognizing this condition is an integral part of operational responsibility.

The question, therefore, does not concern design exclusively as a discipline. It concerns the formation of subjects capable of reading and intervening in relations between people and things, between technical systems and living contexts, before, during, and after their formalization.

To educate designers — and, more broadly, professionals — means developing the capacity to identify open configurations, to position oneself within them, and to operate with awareness of consequences before they become irreversible. It means working on the fields of thinkability that precede solutions.

The structure does not depend on its name: it operates whenever design consciously assumes its position within the threshold between what is stabilized and what remains thinkable. It concerns whoever intervenes in the transformation of spatial relations. When the threshold is not recognized, decisions appear inevitable and consequences necessary. Thinkability names the condition in which configurations remain structurally open to articulation before consolidating into necessity. Spatial Thinking defines the field, DEMA articulates its operations, Epistemic Design makes explicit its condition. Design operates within this structure.

Bibliographic References

- Alexander, Christopher. *Notes on the Synthesis of Form*. Cambridge, MA: Harvard University Press, 1964.
- Barad, Karen. *Meeting the Universe Halfway: Quantum Physics and the Entanglement of Matter and Meaning*. Durham, NC: Duke University Press, 2007.
- Deleuze, Gilles. *Foucault*. Minneapolis: University of Minnesota Press, 1988.
- Farinelli, Franco. *Geografia. Un'introduzione ai modelli del mondo*. Torino: Einaudi, 2003.
- Hejduk, John. *The Education of an Architect*. New York: Cooper Union / Rizzoli, 1988.
- Knorr Cetina, Karin. *Epistemic Cultures: How the Sciences Make Knowledge*. Cambridge, MA: Harvard University Press, 1999.
- Latour, Bruno. *Reassembling the Social: An Introduction to Actor-Network-Theory*. Oxford: Oxford University Press, 2005.
- Lefebvre, Henri. *The Production of Space*. Oxford: Blackwell, 1991.
- Schön, Donald A. *The Reflective Practitioner: How Professionals Think in Action*. New York: Basic Books, 1983.

Bio

Antonio Scarponi develops Epistemic Design as both practice and theoretical reflection. He is the founder of Conceptual Devices and engages in research and university-level teaching.