#supplementary_note

Status: draft

Related-modules:

- M04 Semantic Mechanics
- M05 Frame-scale
- M07 Golden Threads

#modelling
#descriptive-modelling
#compositional-modelling
#frame-scale
#artificial-relational-configuration
#iad-epistemology

On Modelling in IAD: Descriptive and Compositional Modelling

Why this note exists

Occasionally a question arises in the development of the canon that initially appears small but quickly reveals deeper implications. The question that prompted this note concerned **modelling**.

More specifically: can the many forms of modelling that exist across disciplines be located within the two foundational categories proposed in Information Architecture Design (IAD), namely **descriptive modelling** and **compositional modelling**?

The concern was not trivial. The landscape of modelling is vast. Formal modelling traditions include predictive modelling, simulation modelling, analytical modelling, generative modelling, and projective modelling, among many others. Beyond these formal methods there also exist countless informal modelling practices used in design, research, planning, and everyday reasoning.

The question, therefore, was whether the proposed distinction in IAD is genuinely foundational or whether certain modelling practices fall outside it. If they did, that would raise an important epistemological concern: are descriptive and compositional modelling actually sufficient as primary categories?

This note records the reasoning that followed from that question.

The modelling distinction in IAD

The distinction itself is straightforward.

Modelling type	Orientation	Core question
Descriptive modelling	Examination	What relational configuration exists?
Compositional modelling	Composition	What relational configuration should exist?

Descriptive modelling concerns the examination and articulation of relational configurations as they exist within artificial assemblages.

Compositional modelling concerns the composition and articulation of relational configurations that are intended to exist.

Both operate within the epistemic boundary established for IAD: **artificial relational configuration**. The task of modelling, therefore, is to represent the relations internal to artificial things and assemblages so that those relations can be examined, understood, and potentially transformed.

Modelling as an epistemic orientation

A crucial clarification emerged early in the discussion. The descriptive/compositional distinction is not intended as a taxonomy of modelling techniques. Instead, it expresses an **epistemic orientation** toward relational configuration.

In other words, the distinction concerns the modeller's stance toward the object of modelling.

Orientation	Question
Description	What configuration exists?
Composition	What configuration should exist?

Many modelling practices move between these orientations. A designer may begin by modelling the existing configuration of a system and then alter that model to articulate a new configuration. The modelling activity therefore moves between description and composition, but it does not escape them.

The case of projective modelling

Projective modelling initially appeared to present a challenge to this framework. Projective models typically involve the exploration of possible futures through techniques such as forecasting, scenario modelling, and simulation.

At first glance, this seemed neither purely descriptive nor purely compositional. However, closer inspection revealed that projective modelling generally unfolds in stages that move between the two orientations.

Stage	Orientation
Model current system	Description
Explore possible behaviour	Descriptive inference
Modify parameters	Composition
Articulate potential configuration	Composition

Projective modelling therefore operates between descriptive and compositional orientations rather than constituting a third category. It is better understood as a **transitional modelling practice** moving from description toward composition.

Collapsing modelling types

Once the orientation-based distinction is understood, many modelling practices fall naturally into place.

Modelling type	Orientation
Descriptive modelling	Descriptive
Analytical modelling	Descriptive
Explanatory modelling	Descriptive
Predictive modelling	Descriptive → Compositional
Projective modelling	Descriptive → Compositional
Simulation modelling	Descriptive → Compositional
Generative modelling	Compositional

Modelling type	Orientation
Design modelling	Compositional
Prescriptive modelling	Compositional

What initially appears as a diverse taxonomy of modelling approaches resolves into two fundamental orientations toward relational configuration.

Why this works within the epistemology of IAD

The collapse of modelling categories into these two orientations follows directly from the epistemological commitments of IAD. Artificial relational configurations are assumed to be intelligible, modelable, and composable.

Modelling therefore corresponds to two fundamental operations on configuration:

Operation	Modelling orientation
Understanding configuration	Descriptive modelling
Introducing configuration	Compositional modelling

All modelling practices ultimately perform one or both of these operations.

The requirement of world reference

Another clarification strengthens the distinction further. Modelling in IAD is never purely symbolic. A model must refer to relational configuration that either exists in the world or is intended to exist in the world.

Modelling type	World relation
Descriptive modelling	Represents configuration that exists
Compositional modelling	Represents configuration intended to exist

This ensures that models are not treated as abstract diagrams detached from reality. Instead, they represent relational configurations that are either observed in the artificial world or intentionally articulated as future configurations.

Compositional modelling of fictional and fantastical entities, artefacts, assemblages, systems, institutions or worlds, are assumed to still be intended for this world, as opposed to that feigning description.

The role of frame-scale

A further condition anchors modelling even more firmly within the epistemology of IAD. Every model must situate relational configuration at a specific **frame-scale**.

Frame-scale identifies the level at which a configuration operates. Without this specification, models risk becoming ambiguous or detached from their context of operation.

Examples illustrate the point:

Model	Frame-scale
Interface navigation model	Interface scale

Model	Frame-scale
Service blueprint	System scale
Governance model	Organisational scale
Ideological schema	Conceptual scale

Frame-scale therefore stabilises modelling as a representational practice by clarifying where the configuration operates.

Modelling as proto-ontology

At this stage a deeper implication becomes visible. Modelling within IAD precedes ontological stabilisation. Descriptive modelling observes relational configuration that already exists, while compositional modelling articulates configuration intended to exist.

In both cases the model represents a **potential ontology**.

Models therefore function as **proto-ontologies**, articulating relational configurations that may later stabilise as contrived ontology within the world.

The modelling structure in summary

The modelling framework within IAD can therefore be summarised as follows.

Category	World relation	Frame-scale	Purpose
Descriptive modelling	Existing configuration	Observed	Understand relations
Compositional modelling	Intended configuration	Designed	Compose relations

Both forms of modelling represent **artificial relational configuration situated at a frame-scale**, providing a coherent epistemic basis for modelling within the theory.

Placement within the canon

This note sits outside the formal modules of the IAD Canon. Its function is to record the reasoning that supports the modelling distinction rather than to define the concepts themselves.

The canonical articulation of the relevant concepts should be found in:

- **M04 — Semantic Mechanics**
- **M05 — Frame-scale**
- **M07 — Golden Threads**

This note therefore acts as contextual scaffolding for those modules. It captures the conceptual path through which the modelling framework became clearer.

Over time, the IAD archive will accumulate many such notes: historical reflections, theoretical side routes, intellectual genealogies, and working thoughts that accompany the development of the canon without belonging to its core structure.

These notes form part of the intellectual environment surrounding the theory. If the canonical modules provide the architecture of IAD, notes such as this provide its corridors, stairwells, and occasional conversations that occur along the way.