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E2 825126: >> THE STRANGE ARCHITECTURE OF THINGS.

Dismantling the Familiar, Reassembling the Unexpected

UIBK Winter Semester 2026/27

Instructors: Cynthia Sánchez Morales / José Carlos López Cervantes

Course meetings: Wednesdays 9:00 am



An inhabitable assemblage in which components, joints, frames, enclosures and unexpected objects acquire architectural scale.

Image: Studio Soqotra, 2026.

Introduction

Architecture usually begins with architecture. We study buildings, plans, sections, structures, typologies and precedents in order to produce other buildings. This studio proposes a different starting point: ***things.***

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A telephone, a typewriter, a coffee maker, a camera, a bicycle or an obsolete machine may appear to have little to do with architecture. Yet every technical object already contains an organised material world. It has a structure that supports it, a casing that encloses it, joints that connect its parts, mechanisms that regulate movement, networks that distribute energy or information, interfaces that mediate its use, and voids that allow its components to operate. In this sense, an object can be understood as a small constructed system – almost an architecture before architecture.

Content:

The Strange Architecture of Things *investigates what happens when these familiar objects are dismantled, analysed and reassembled until their original identity becomes unstable and other spatial possibilities begin to emerge.*

The studio takes ***estrangement*** *as a projective method. Viktor Shklovsky described ostranenie – commonly translated as defamiliarization or estrangement – as the act of making the familiar strange in order to perceive it anew. Rather than accepting an object through its habitual image and function, students will interrupt this familiarity. A telephone will cease to be simply a telephone. Once opened, separated and drawn, it becomes a collection of frames, membranes, screws, cavities, wires, mechanisms, surfaces and connections.*

This displacement has an important genealogy in twentieth-century artistic practice. Marcel Duchamp's readymades demonstrated that an ordinary manufactured object could acquire a radically different meaning through selection, displacement and recombination. In Bicycle Wheel, two familiar objects produce an unfamiliar third condition. Picasso's Bull's Head similarly transformed a bicycle saddle and handlebars through an extraordinarily economical act of association: neither component loses its identity completely, yet together they suddenly become something else.

The studio transfers this operation into architectural design. But rather than treating assemblage merely as collage, students will progressively ask whether these new configurations can acquire ***architectural coherence****.*

The ambition is therefore not to make architecture look like an object. It is to discover architecture already latent within the organisational, material and tectonic logic of things.

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Course Blocks

FROM READY-MADE TO ASSEMBLAGE

The studio understands the object not as a formal reference to imitate, but as ***material to think with.***

Duchamp's readymades displaced objects from one disciplinary field into another. Picasso demonstrated how a minimal recombination could produce an entirely new reading. Contemporary ***kitbashing*** *introduces another useful operation: components originating in different objects or systems are cut, adapted, combined and recontextualised to construct an artefact that never previously existed.*

These precedents introduce three fundamental operations:

displacement – estrangement – reassembly.

Yet architecture demands something more. An unexpected assemblage can remain a sculpture, an image or an intriguing object. The architectural problem begins when the student asks how that assemblage might support weight, produce enclosure, organise circulation, generate rooms, establish thresholds, accommodate bodies and respond to a particular use and place.

The studio therefore moves progressively from ***recognition to estrangement, and from estrangement to architectural coherence.***



A visual inventory of familiar objects. Before becoming design material, things are recognised through their conventional identities, uses and scales.

Image: Studio Soqotra, 2026.

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01 – DISMANTLE

Opening the Black Box

The first operation is physical.

Each student will select an everyday object capable of being dismantled and brought into the studio. Objects should preferably be used, obsolete, broken or discarded rather than purchased specifically for the exercise. Old telephones, cameras, radios, lamps, small appliances, tools, typewriters, toys or mechanical devices are particularly appropriate because their internal organisation is sufficiently complex to reveal different systems.

Students will carefully dismantle their object.

This is not destruction.

Every screw removed, casing opened and mechanism exposed becomes an act of observation. The sequence of disassembly should therefore be documented photographically and graphically. Components will be measured, drawn, photographed, catalogued and arranged into inventories.

The intact object gradually disappears.

In its place emerges a ***kit of parts****.*

Todd McLellan's photographic series Things Come Apart provides an important reference for this operation. His meticulously disassembled objects reveal technical artefacts not as singular forms but as constellations of individual components whose relationships normally remain invisible.

The object that students thought they knew becomes unfamiliar.

https://www.toddmclellan.com/thingscomeapart#e-2

Todd McLellan, Things Come Apart.

Image: Todd McLellan, *Things Come Apart*.

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02 – ANALYSE

Discovering the Hidden Architecture of Things

Once dismantled, the object must be understood.

Students will move beyond conventional descriptions such as wheel, button, handle, motor or case. Components will instead be classified according to the roles they perform within a constructed system.

*A chassis can be read as **structure**.*
*A casing as **envelope**.*
*Wiring as **infrastructure**.*
*A hinge or screw as **tectonic joint**.*
*An internal cavity as **space**.*
*A button or handle as **interface**.*
*A sequence of mechanical operations as **programme**.*

The analysis therefore deliberately introduces architectural categories into a non-architectural object.

*Drawing becomes fundamental at this stage. Plans, sections, axonometrics, exploded views, diagrams, measurements and relational maps should reveal not simply what each component looks like, but **what it does and how it relates to other components**.*

Students should identify families such as:

STRUCTURE / FRAME
support, rigidity, stability

SKIN / CASING
protection, enclosure, surface, identity

MECHANISM
movement, transformation, sequence

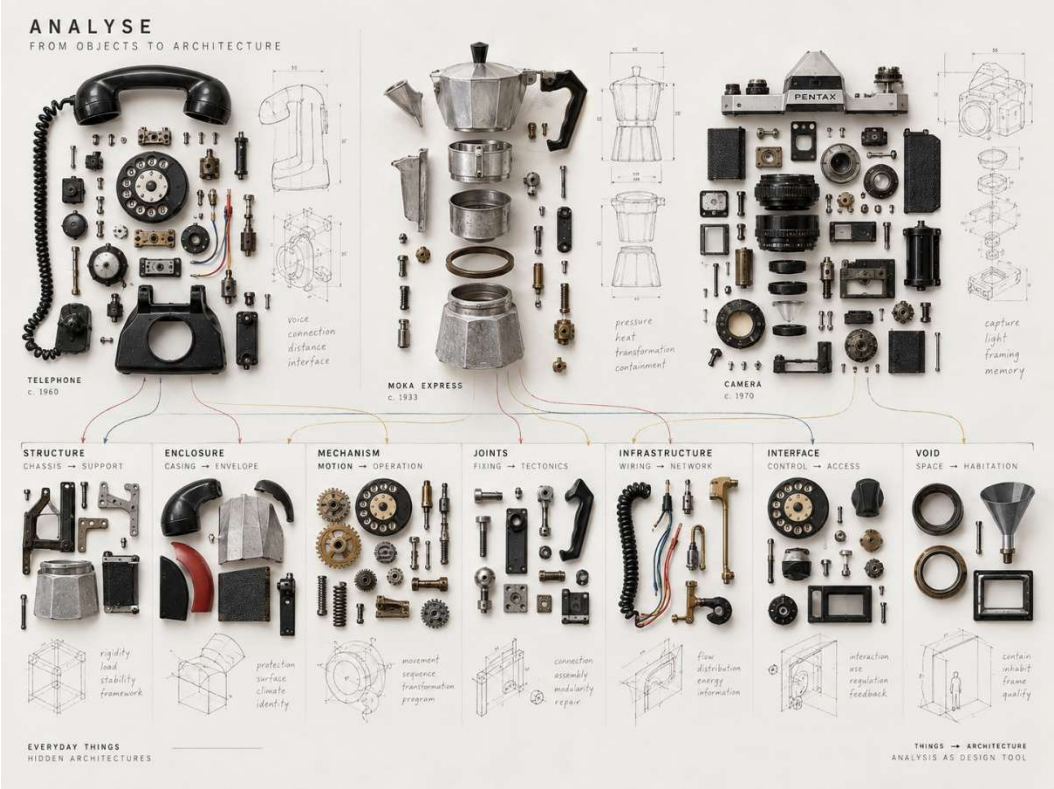
JOINTS
connection, articulation, assembly

NETWORK / INFRASTRUCTURE
energy, information, distribution

INTERFACE / CONTROL
interaction, access, regulation

VOID / SPACE
containment, separation, accommodation

The aim is not to claim that an object is a building. Rather, it is to develop the capacity to recognise organisational and tectonic relationships independently of scale and disciplinary convention.



From objects to architecture. Components from different everyday artefacts are classified according to structural, tectonic, mechanical, infrastructural, spatial and interface conditions. Analysis transforms the dismantled object into a catalogue of architectural possibilities.

Image: Studio Soqotra, 2026.

03 — ESTRANGE

Seeing Something Else

Analysis creates distance from the original object. Estrangement pushes that distance further.

The twentieth-century avant-garde repeatedly demonstrated that meaning can emerge from unexpected encounters between ordinary things. The significance of these operations for the studio lies precisely in their economy: transformation does not necessarily require inventing a completely new form.

A bicycle wheel can become something else by being placed upon a stool.

A bicycle saddle and handlebars can suddenly become the head of a bull.

The components remain recognisable, but the relationship between them changes.

Students will experiment with displacement, inversion, rotation, repetition, substitution, scaling and unexpected adjacency. Familiar hierarchies should be questioned:

What if structure becomes skin?
What if casing becomes structure?
What if a hidden mechanism becomes façade?

What if a handle becomes circulation?
What if an internal void becomes a room?

Estrangement is therefore not an aesthetic style. It is a method for temporarily suspending habitual interpretation.



Left: Marcel Duchamp, Bicycle Wheel. A familiar manufactured object is displaced and combined with another, producing a new relationship between object, function and perception.

Right: Pablo Picasso, Bull's Head, 1942. A bicycle saddle and handlebars acquire another identity through an extraordinarily direct act of recombination.

Images: Marcel Duchamp / Pablo Picasso. Reference images visually standardised for the studio document by Studio Soqotra.

04 – REASSEMBLE

From Parts to New Coherences

*The dismantled object now becomes a **working model**.*

Students will physically manipulate its components: rotating, inverting, overlapping, repeating, connecting and exchanging their original hierarchies. Parts from other objects may progressively enter the assemblage where productive relationships emerge.

*The process connects directly with **kitbashing**: the construction of new artefacts by combining fragments originating from previously unrelated objects or systems.*

*However, reassembly should not immediately pursue architectural recognisability. At this stage, the objective is to generate **unexpected but internally convincing configurations**.*

Artificial intelligence enters the studio precisely here.

Photographs, drawings, scans and physical assemblages can be introduced into generative workflows to destabilise existing relationships and suggest combinations difficult to anticipate manually. AI is therefore not primarily a rendering device and should not be used simply to make an unfinished design appear finished.

Its role is more disruptive:

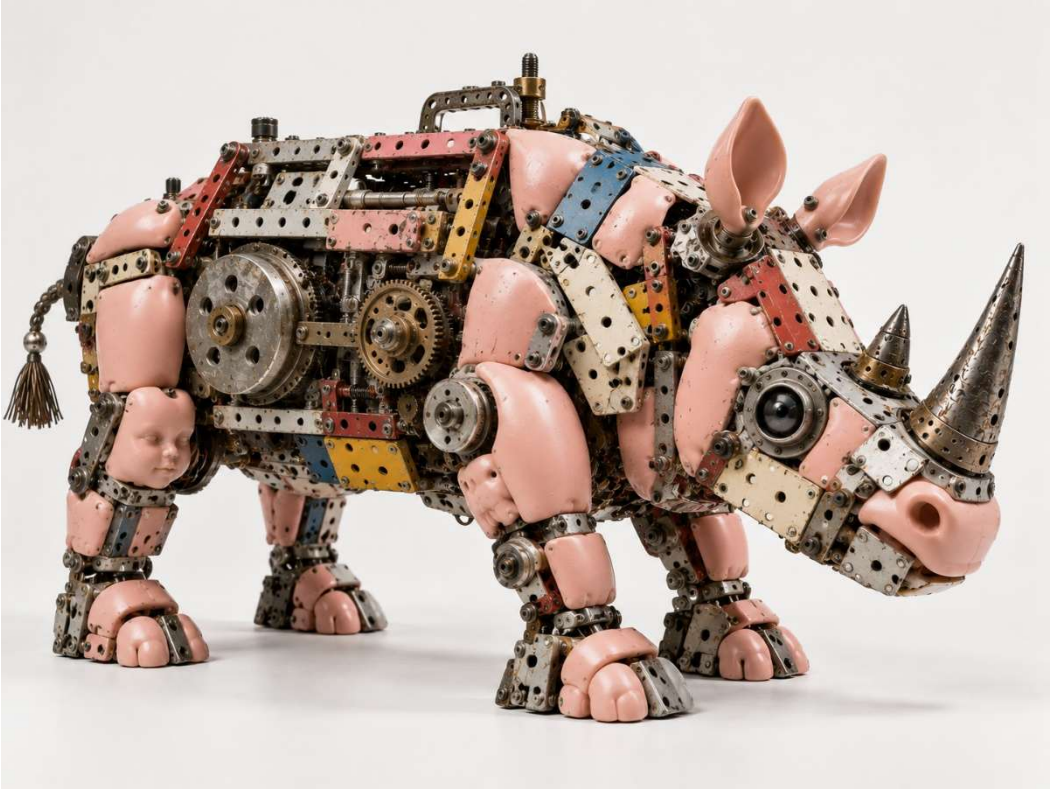
AI does not visualise the architecture. It disturbs the logic of assembly.

The workflow can consequently move repeatedly between media:

PHYSICAL → AI → PHYSICAL → DRAWING → AI → PHYSICAL

A physical configuration may be photographed and transformed through AI. An unexpected relationship discovered in the generated image may then return to the physical model. Drawing can clarify it; another generative iteration may destabilise it again.

Authorship resides in this iterative process of selection, rejection, interpretation and reconstruction.



Kitbashing as a projective operation. Mechanical components, perforated construction pieces and fragments belonging to unrelated objects are assembled into a new coherent artefact. Familiar identities survive only partially within the hybrid.

Image: Studio Soqotra, 2026.

05 – ARCHITECTURALISE

When Does an Assemblage Become Architecture?

The hybrid produced through reassembly is ***not yet architecture****.*

The next phase introduces disciplinary resistance.

Students must determine which relationships discovered during experimentation are capable of becoming structural, spatial, programmatic or tectonic propositions. The assemblage will gradually acquire scale and architectural organisation.

This does not mean placing a conventional building inside an unusual shell. Nor should the strange artefact simply be enlarged until people can enter it.

Instead, its internal logic must be translated.

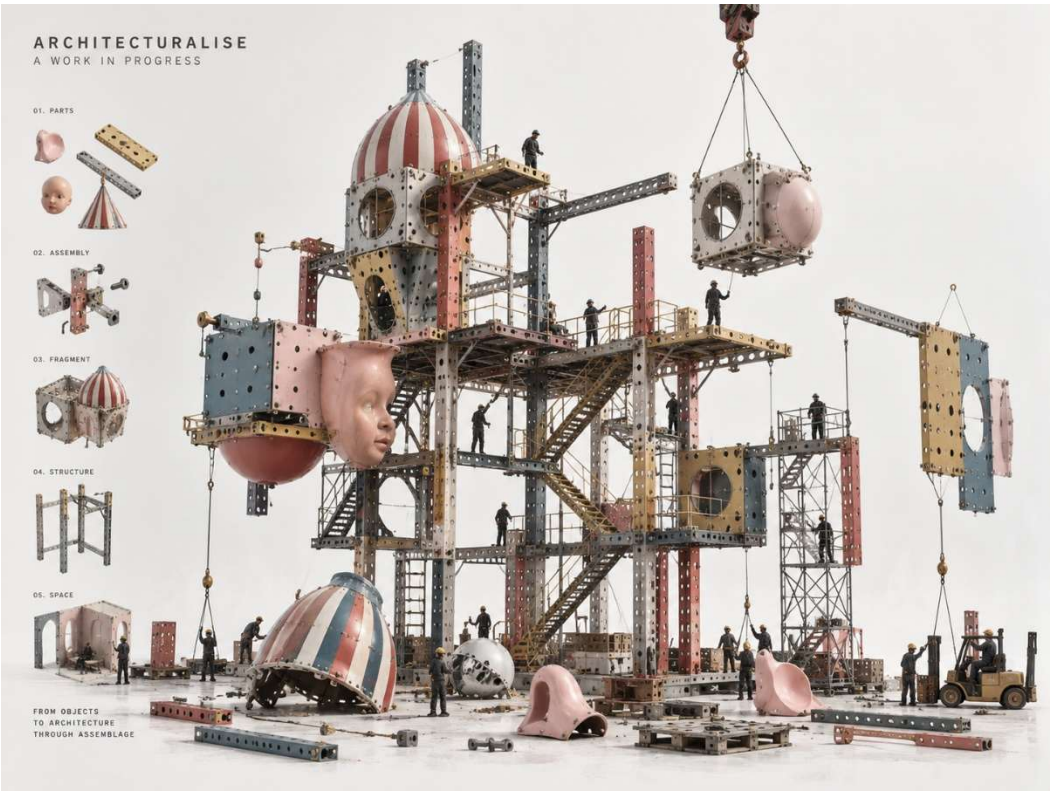
Components become structural systems.
Connections become tectonic principles.
Voids become rooms.
Repetition becomes organisation.
Mechanisms suggest movement.
Interfaces become thresholds.
Skins become envelopes.
Sequences become circulation.

*Importantly, **the final building type is not predetermined**.*

Only at this point should students begin asking what kind of architecture their assemblage could become. A compact vertical configuration may suggest one form of occupation; an extensive linear system another; a collection of chambers another.

Programme, scale and context should therefore emerge through the architecturalisation of the assemblage rather than being imposed upon it beforehand.

The programme is not the starting point of the project; it is one of its discoveries.



Architecture appears progressively through assembly. The project remains visibly under construction: neither object nor building, but a transition between the two.

Image: Studio Soqotra, 2026.

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06 – INHABIT

From Strange Object to Architectural Space

Architecture ultimately encounters the body.

The final operation tests whether the transformed assemblage can genuinely support occupation.

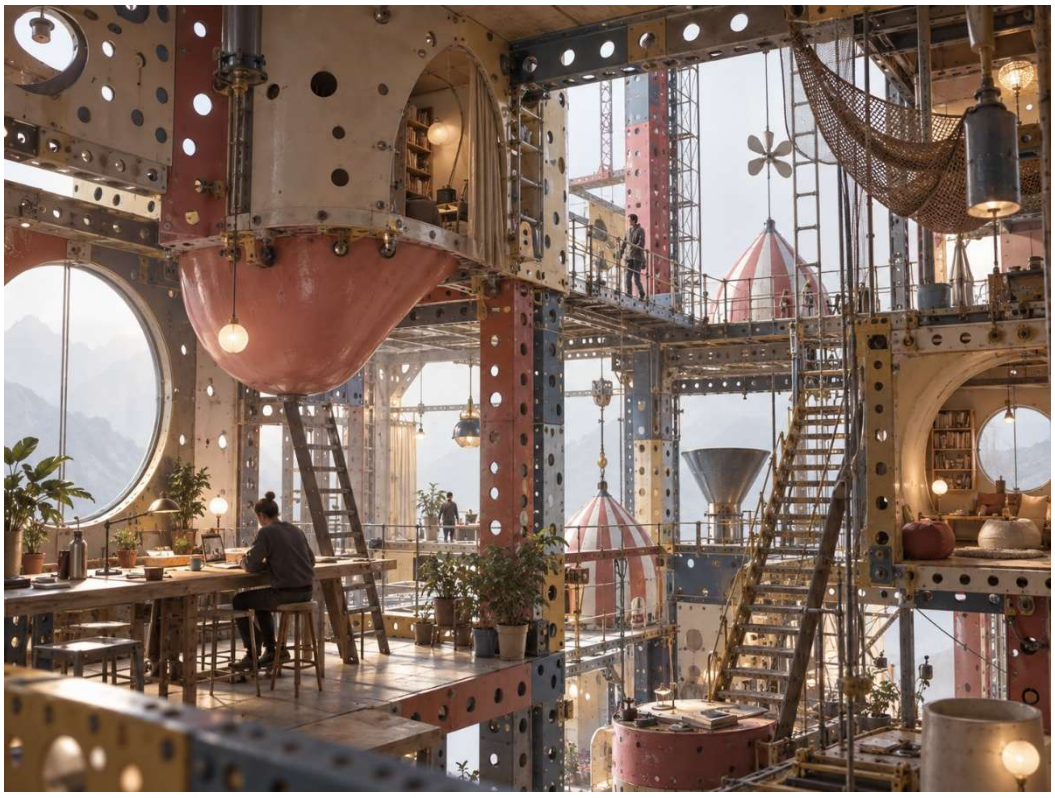
Students will develop interior and exterior spaces through human scale, movement, accessibility, programme, furniture, light, atmosphere and material conditions. The strange genealogy of the project should remain visible: bolts, joints, fragments, mechanisms, unexpected enclosures and inherited components should not disappear beneath a conventional architectural finish.

Instead, inhabitation should negotiate with them.

A structural frame may simultaneously support a room and become furniture. A former casing may define an intimate enclosure. A mechanical opening may become a window. An oversized component may establish a threshold. Circulation may weave between pieces rather than simply occupy a neutral core.

*The objective is to maintain the productive tension between **THING and ARCHITECTURE**.*

The project succeeds when it is clearly inhabitable and architecturally resolved, while the observer can still sense that its spatial order originated somewhere else.



Inside the assemblage. The strange object has become architecture without completely losing its identity as a constructed thing.

Image: Studio Soqotra, 2026.

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Learning Outcomes:

Students will:

· Investigate architectural estrangement as a design method capable of revealing unfamiliar spatial, formal and tectonic possibilities within familiar objects.

· Understand everyday and technical objects as constructed systems composed of parts, hierarchies, connections, mechanisms, interfaces and internal organizations.

· Identify architectural principles within non-architectural objects, including structure, enclosure, circulation, infrastructure, joints, interfaces and spatial voids.

· Use physical dismantling as an analytical operation through which hidden material, constructive and organizational relationships can be revealed.

· Employ drawing, photography, digital modelling and physical modelling as complementary instruments for analysing and transforming objects.

· Develop taxonomies of components according to their structural, functional, material, mechanical and spatial characteristics.

· Explore estrangement through displacement, inversion, repetition, scaling, substitution and unexpected associations between components.

· Understand assemblage and kitbashing as projective techniques capable of generating new relationships between heterogeneous objects and components.

· Use physical reassembly as an iterative design process in which dismantled components become an active kit of parts and a working architectural model.

· Utilize generative AI to produce unexpected associations between components, materials, geometries and systems rather than simply to visualize predetermined designs.

· Critically select, reconstruct and develop AI-generated possibilities through physical models, drawings and architectural reasoning.

· Translate non-architectural organizations into coherent architectural systems without reducing the original object to a formal metaphor.

· Progressively introduce structure, enclosure, circulation, programme, materiality and tectonics into initially ambiguous assemblages.

· *Derive programme, scale and context from the spatial and organizational potential discovered through the design process rather than from a predetermined building type.*

· *Understand inhabitation and the human body as fundamental tests through which an assemblage becomes architecture.*

· *Develop a complete architectural proposal that preserves the unexpected qualities discovered through estrangement while achieving spatial, structural, programmatic and tectonic coherence.*

Methodology

The course employs a research-by-design methodology integrating physical dismantling, analytical drawing, assemblage, kitbashing, generative Artificial Intelligence, architectural representation and physical modelling.

The design process is structured through six successive but iterative operations:

DISMANTLE → ANALYSE → ESTRANGE → REASSEMBLE → ARCHITECTURALISE → INHABIT

1. DISMANTLE – Opening the Black Box

· *Selection of an everyday, technical or mechanical object capable of being physically dismantled.*

· *Preference for used, obsolete, broken or discarded objects with sufficient constructive and mechanical complexity.*

· *Careful physical disassembly of the selected object.*

· *Photographic documentation of the dismantling sequence.*

· *Identification, measurement and cataloguing of individual components.*

· *Production of exploded views, inventories and drawings revealing the internal organization of the object.*

· *Transformation of the original object into a physical kit of parts that will remain active throughout the semester.*

2. ANALYSE – Discovering the Hidden Architecture of Things

· *Analysis of the object as a constructed system rather than as a finished product.*

· *Classification of components according to structural, material, functional, mechanical and spatial characteristics.*

· Identification of relationships between chassis, casing, mechanisms, joints, networks, interfaces and internal voids.

· Translation of these relationships into architectural categories such as structure, envelope, infrastructure, tectonics, circulation and space.

· Development of analytical drawings, diagrams, sections, axonometrics and relational maps.

· Identification of organizational principles that can operate independently from the original function and scale of the object.

3. ESTRANGE – Making the Familiar Unfamiliar

· Suspension of the original identity, function and conventional reading of the dismantled object.

· Experimentation through displacement, inversion, rotation, repetition, scaling and substitution.

· Exchange of conventional hierarchies between components: structure may become skin, casing may become structure, mechanisms may become spatial organizers and hidden components may become visible.

· Exploration of unexpected associations between components originating from the same or different objects.

· Use of collage, photography, drawing and physical manipulation to generate unfamiliar readings.

· Development of multiple speculative configurations before architectural function or programme is defined.

ESTRANGEMENT INTERRUPTS RECOGNITION.

THE FAMILIAR BECOMES AVAILABLE FOR DESIGN.

4. REASSEMBLE – From Parts to New Coherences

· Use of the dismantled object as a physical working model and kit of parts.

· Application of assemblage and kitbashing techniques to combine, modify and reconnect heterogeneous components.

· Physical experimentation through cutting, rotating, overlapping, repeating, connecting and replacing parts.

· Introduction of components from other objects when they generate productive new relationships.

· Use of generative AI during the process of reassembly to disturb conventional relationships and suggest unexpected configurations.

· Iterative movement between physical assemblage, photography, AI generation, drawing, digital modelling and physical reconstruction.

· Identification and selection of productive anomalies rather than acceptance of generated images as finished proposals.

· Development of new internal coherences without prematurely forcing the assemblage to resemble architecture.

AI PRODUCES UNEXPECTED RELATIONSHIPS.

THE STUDENT SELECTS, RECONSTRUCTS AND GIVES THEM COHERENCE.

5. ARCHITECTURALISE – From Assemblage to Architecture

· Identification of spatial, structural and tectonic potential within the emerging assemblage.

· Progressive translation of components into architectural systems.

· Transformation of frames into structures, casings into envelopes, joints into tectonic principles, voids into rooms, mechanisms into movement and interfaces into thresholds.

· Introduction and development of circulation, accessibility and spatial hierarchy.

· Definition of appropriate architectural scale.

· Exploration of programme as a consequence of the spatial and organizational qualities discovered through the assemblage.

· Identification of an appropriate context or site capable of establishing a productive relationship with the emerging architecture.

· Development through plans, sections, axonometrics, digital models and physical models.

· Progressive transition from an autonomous artefact toward a coherent architectural proposition.

THE ASSEMBLAGE DOES NOT REPRESENT A BUILDING.

IT MUST BECOME ARCHITECTURE.

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6. INHABIT – Testing Architecture through the Body

· Introduction of the human body as a fundamental measure of the emerging architecture.

· Development of spaces for occupation, movement, encounter, work, rest or other programmes derived from the project.

· Testing of dimensions, accessibility, thresholds, circulation and relationships between interior and exterior.

· Development of material, atmospheric and environmental conditions.

· Integration of furniture, equipment and smaller-scale components where these reinforce the organizational logic of the project.

· Preservation of visible joints, inherited components and unexpected relationships rather than concealing them beneath a conventional architectural language.

· Resolution of structure, envelope, circulation, programme, materiality and tectonics as interconnected systems.

· Development of a complete architectural proposal in which the genealogy of the original object remains perceptible without determining the final architecture literally.

Expected Outcome

The final outcome is deliberately left open.

Students are not asked to design a predetermined building type, programme or common site. Instead, the architectural scale, use and context will emerge from the spatial, organisational and constructive potential discovered through dismantling, analysis and reassembly.

*During **ARCHITECTURALISE** and **INHABIT**, each student will determine what kind of architecture their assemblage can become and identify an appropriate programme and context for it.*

The final proposal must nevertheless move decisively beyond sculpture, product design or autonomous object. It must achieve sufficient architectural complexity to allow the evaluation of:

structure · spatial organisation · circulation · envelope · programme · tectonics · materiality · inhabitation

The scale may vary between projects. A pavilion, small public building, station, infrastructure, collective facility or other architectural condition may emerge, provided that its scale and programme can be convincingly derived from the logic of the project.

The studio does not ask:

How can this object inspire the form of a building?

It asks:

What architecture was hidden inside this thing, and what happens when we allow it to escape?

Course Structure & Organization

Students will work individually.

Each session will contain a theoretical lesson, desk crits and specific software or representation tutorials required for the development of the project.

Progress will be reviewed weekly at the studio.

The course emphasizes continuity between research, experimentation and final design. The final project must demonstrate how its architecture emerged from the original object, its dismantled components and the systems and relationships developed throughout the semester.

Material Requirements:

Students need to bring their own laptops. Software will be accessible through educational licenses.

Tools and Techniques:

In order to apply this specific methodology, students will be instructed in specific software. No previous experience with the software will be required.

Final Deliverables & Requirements & Assessment (OLAT):

Complete graphic description of the project is expected, including visualizations, drawings, diagrams, research material, and any visual information necessary for a complete understanding of the proposal.

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SUBMISSION

Grading Procedures:

Grades are determined based on the quality of work produced, progress and improvement over the course of the semester, completion of project requirements, quality of participation, attendance, attitude, and ethical conduct. Grading policies will be discussed during the first weeks of the studio, and any questions regarding grades or policies should be directed to the instructors. A passing grade in the course requires committed completion of all projects, including the institute archive in proper formats. Incomplete work will not be evaluated until the submission is completed. A failing grade is given whenever cumulative work, final work, and/or attendance are unsatisfactory. It is also given when a student fails to submit a final project or fails to take a final examination without prior approval from the instructor.

Academic Integrity:

The integrity of the work of individuals is first and foremost a grading milestone. Student work that delivers the ideas or words of others as the student's own adversely impacts the whole faculty. Academic dishonesty, including cheating, plagiarism, commissioning academic work by others, or performing academic work on behalf of another student, is strictly prohibited and would result in a negative grade.

Plagiarism:

This includes but is not limited to; copying words, images, or other material from a source without using appropriate citation rules such as quotation marks, footnotes, references, or other indications of the original source, paraphrasing another person's ideas in your own words without crediting the original source, taking sole credit for assignments without giving credit to those who worked with you, submitting work for a course that has already/also been submitted for another course or internet plagiarism, such as submitting work either found or paid for online, failing to cite any internet sources used, or cutting and pasting sentences from various websites to create a collage of uncited words.

Incomplete Work & Extension of time:

A student may receive a negative grade or no grade when the work is incomplete at the evaluation date by the end of the semester. By requesting permission from the instructor in good time prior to the date of the final examination or presentation, this can be avoided. Permission will be granted only under extraordinary circumstances and usually for medical reasons, requiring a medical document proving the situation. Incompleteness must be fulfilled to the instructor's satisfaction no later than two weeks after the end of the term.

Archiving:

Students are required to submit physical examples of their work or digital examples no later than one week after the end of the term to their instructors or administration for archiving. This is a chance for students to have their work displayed or exhibited online and potentially featured

in future institute publications or research projects. The instructors will provide a document titled the Einwilligungsformular that allows the institute to keep track of the agreement; if you wish not to permit this archival material to be published, please contact the institute secretary in good time.

Learning Policy (Studios and Seminars):

Attendance is mandatory at critiques, pin-ups, and reviews. If you do not present your work regularly, you will not receive a passing grade for the course. Students must have all required work related to the course during course hours (not at another location or other time). Students should not use course time to leave school to procure materials, run errands, etc. All activities that require one to be away should be scheduled to occur outside of course hours. Leaving in the middle of or before the end of regularly scheduled course times will result in an absence unless discussed with the instructors. Grades will be determined by the quality of work produced, an improvement over the course of the semester, completion of project requirements, quality of participation, and attendance.

All electronic recordings, image captures/screenshots (during zoom meetings), or audio recordings are strictly prohibited unless agreed upon or discussed beforehand with the instructors and participants.

CONCEPTUAL REFERENCES

The studio establishes a deliberately heterogeneous genealogy connecting artistic displacement, technical objects, assemblage, architectural drawing and contemporary generative practices.

***Viktor Shklovsky** – Art as Technique / Art as Device. Estrangement (ostranenie) as a means of interrupting habitual perception.*

***Marcel Duchamp** – the readymade and particularly Bicycle Wheel. Displacement and recombination of ordinary manufactured objects.*

***Pablo Picasso** – Bull's Head (1942). Reinterpretation through minimal assemblage and perceptual association.*

***Gilbert Simondon** – On the Mode of Existence of Technical Objects. Technical objects understood through their internal organisation, relationships and modes of operation.*

***Todd McLellan** – Things Come Apart. Disassembly as a means of revealing the hidden material and technical anatomy of everyday things.*

***Jean Tinguely** – machines and assemblages constructed from heterogeneous mechanical components.*

***Konrad Wachsmann** – systems of assembly and the architectural significance of the joint.*

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Javier Seguí *– drawing, projecting and estrangement as architectural pedagogical operations.*

Nuria Vallespín-Toro *– Dibujos de Extrañamiento and subsequent pedagogical research connecting dismantling, recomposition, drawing and generative AI.*

SELECTED BIBLIOGRAPHY

Carpo, Mario. Beyond Digital: Design and Automation at the End of Modernity. MIT Press, 2023.

McLellan, Todd. Things Come Apart: A Teardown Manual for Modern Living. Thames & Hudson, 2013.

Seguí de la Riva, Javier. Dibujar, proyectar (XL). Extrañeza (2). Instituto Juan de Herrera, 2011.

Shklovsky, Viktor. "Art as Technique" / "Art as Device" [Iskusstvo kak priëm, 1917].

Simondon, Gilbert. On the Mode of Existence of Technical Objects. Originally published 1958.

Vallespín-Toro, Nuria. "Dibujos de Extrañamiento: una experiencia docente para aprender a mirar."

Vallespín-Toro, Nuria. "Del extrañamiento a la cocreación: IA y nuevos lenguajes gráficos en el aula de arquitectura." XXI Congreso Internacional de Expresión Gráfica Arquitectónica, Barcelona, 2026.

First meeting: Wednesday October 7th 10:30 am