U E U
CARTOGRAPHY
ENVIRONMENTAL OBJECTS
**object (n.)**
“tangible thing, something perceived or presented to the senses,” from Latin *objectum* “thing put before” (the mind or sight) and *objectus* “lying before, opposite,” past participle of *obicere* “to present, oppose, cast in the way of,” from *ob* “in front of, towards, against” + *iacere* “to throw.”

**object (v.)**
“to bring forward in opposition,” from Old French *objeter* and directly from Latin *objectus*, past participle of *obiectare* “to cite as grounds for disapproval, set against, oppose.”

**environment (n.)**
“state of being environed” (*environ (v.) + -ment*); “the aggregate of the conditions in which a person or thing lives” (used to render German *Umgebung*).

**environ (v.)**
(implied in environing), “to surround, encircle, encompass,” from Old French *environer* “to surround, enclose, encircle,” from *environ* “round about,” from *en-* “in” + *viron* “a circle, circuit,” also used as an adverb, from *virer* “to turn.”
The term cartography is based on Latin charta, meaning ‘paper’ or ‘map’, and -graphia, meaning ‘description’, which derives from graphein, meaning ‘to write’ or ‘to draw’. Swiss historian André Corboz defines description as something between the act of reading (analysis) and writing (designing). He claims that there can be no description of a territory without a fiction of the territory, a positioning that contains a speculative and ethical critique. This is reminiscent of a sketch by Le Corbusier that defines a certain type of ‘architectural gaze’ as the smooth transition from the act of ‘looking’ to that of ‘creating’, stating: “la clé c’est regarder… regarder, observer, voir, imaginer, inventer, créer”.

The map-as-description is situated at the heart of this process that turns observation into action. Maps have the power to actually make the territories they represent because description, -graphia, is already a project.

In its totality, the territory is chaotic and complex. In order to guide subjects through inconceivable space, maps encode the peculiarities of the physical world into abstract symbols made up of particular marks (dots, lines, blots, voids, colour) that help suggest spatial correlations, such as direction, distance, movement and structure. Maps are drawings and cartography is a language, a system of communication made up of meanings (contents) and signs (forms). Drawing is complementary to thought, it is a machine of vision, measurement and understanding.
Maps are visual tools for thinking about the world at many scales. They shape scientific hypotheses, organize political and military power, limit the boundaries of private property, and reflect cultural ideas about nature and the landscape. They are at the juncture of performance and artefact, of the visual and the aural, of the static and the dynamic, and they serve deeply ingrained human needs such as spatial orientation and feeling ‘in place’. To the extent that our worldviews inform our perceptions and positions in the world, maps have the power to actually make the territories they represent, and construct the subjects that gaze upon them. Maps reveal hidden structures, spatial scales and points of view that are not immediate to human experience. In ascribing an image (representation) to the territory, maps convey a perceptive feeling to realities unavailable to the human senses. Cartography is never neutral or passive, and its reading the world always blurs with an inevitable degree of fabrication but at the same time, cartography has the ability to foreground the unconscious layers of the territory and reveal an archaeology of hidden truths.
landscape cartography

In his seminal 1983 essay *Le Territoire Comme Palimpseste*, André Corboz compares the territory to a layered parchment with inscriptions and erasures attributed to both intentional and accidental, natural and human, factors. Tracing a narrative out of the ways in which we have represented the territory, he identifies a historical opposition between the map – the God’s eye view, ubiquitous, abstract and descriptive – and the landscape – the human perspective that projects an état d’âme onto a scenery. The map renders the territory as an object, while the landscape acknowledges it subjectively. The former has the pretence of exactitude, while the latter is relative to each viewer’s conscience. Corbóz challenges this opposition by stating that with the advent of satellite imagery and high speed transport, the objective and subjective gaze have merged. In reaction to this, he proposes the ‘palimpsest’ as a metaphor for reading the territory in its depth, both historical and geological. The palimpsest challenges the notion of the territory as surface and its affiliated emphasis on perimeter and propensity for tabula-rasa appropriations. Instead, the territory as palimpsest requires a close reading of its traces and fragments, aimed at interventions that work in a spirit of recycling.
The word 'environment' comes from the French *environer*, meaning 'to surround, enclose, encircle'. The word object comes from the Latin *objectum*, meaning 'thing lying before, opposite' (the mind or sight), from *obicere*, 'to present, oppose'. The environment envelops the spectator; it is infinite but its perceptual limit is the horizon. It is real but immaterial, ethereal. It is the *milieu*, the ‘mid-place’, the medium in-between. The object, on the other hand, is finite. It confronts the environment by creating a limit, a form. It is objective, meaning it has intentions, it occupies a position. In its delineation, it encloses an inside and excludes an outside. In doing so, it creates a subject, a point of view and a sense of belonging in familiarity set against the strange otherness of the outside.

To think of architecture as an environmental object means to question this very opposition by analyzing some of the inherent dichotomies of separation here at play — figure and ground, inside and outside, autonomy and analogy. To map environmental objects means to look at these oppositions and reveal the aesthetics of confrontation between architecture and landscape, the building and its immediate and territorial contexts.
The course opens with simple hand sketching exercises. The first session will be made from landscape photographs projected in the classroom; the second one will focus on real-life objects in an outdoor location. The projected photographs will be very abstract, with reduced perspective and repetitive organic patterns. Students will be asked to draw what they see following a graphical overlaying of layers, each represented in a contrasting technique: paintbrush for large strokes that are meandering and continuous; pen for thin lines that are dense and crisp; sponge and water for complex blots, etc. Hence, elements of the same layer are in dialogue with each other, while different layers relate by juxtaposition. This overlaying will result in a system of graphical structures. The same method should be applied to the outdoor class, and later, to the mapping.

Each student will receive a journal to be used for daily sketching and graphical research. It will need to be handed in for evaluation at the end of the semester. An experimental and inquiring body of research will be valued.
tracing

This exercise is an intermediate step that bridges between the hand drawings and the map. As before, students will be shown a pool of abstract photos that depict landscape patterns. Each student will pick one and draw it — this time, through precise digital tracing. This is still a largely conceptual exercise, placed somewhere between an intuitive composition and an informative map, but the goals established in the previous exercise remain valid: to identify layers, ascribe them distinct graphic identities, and overlap them into a palimpsestuous system. By looking closely at natural textures and carefully drawing them, one becomes increasingly aware of landscape forms and structures. One is then able to develop a graphical vocabulary that is complimentary to the cannons of architecture, a language of landscape.
An aerial photo serves as basis from which the map is drawn, using digital tools (AI, PS, Acad) and/or analogue techniques. The choice of site will be selected by the student from a pool of suggested buildings that we characterize as environmental objects because they have a strong, contextualist relationship to landscape. The goal of this exercise is to go beyond canonic representations of architecture that often focus excessively on the built form. We want to invent a site-specific language that describes the relationship between the building and its environment at different scales.

The framing of the site should describe a specific environment in which the object is inserted. Complimentary information about the site will be needed for research, such as texts, photographs, historical maps, etc. Students may chose to add zooms to their maps, or include in their presentation a break-down of the layers that make up their system-map. The map will be assessed as much for graphical clarity as for territorial understanding, two qualities that are, in fact, absolutely entangled. The overlapping of this assignment with the visual journal will be fundamental in the search for a coherent and critical visual language.
1. **identify site and territorial condition**

   Example 1: Gilda Gysin, UE U 2015
   Site: Coachella Valley, CA, USA
   Environment: Abstract Landscape in an Asymmetrical Valley

2. **frame site**
3. trace layers separately

Layer 1: Topography  
Layer 2: Infrastructure  
Layer 3: Hydrography  
Layer 4: Vegetation

4. combine layers into a system
1. identify site and territorial condition

Example 2: Claudia Zanella & Marta Lorenzi, UE U 2016
Site: Valais, CH
Environment: Metropolitan Corridor, No-stop Valley

2. frame site
3) trace layers separately

Layer 1: Hydrography

Layer 2: Infrastructure

Layer 3: Topography: valley plain

Layer 4: Settlement

4) combine layers into a system
This is the course blog where you will find all previous student work and a pool of cartographic references that will prove useful to your work.

bárbara maçães costa

laba - Laboratoire Bâle
Ackermannshof
St Johans-Vorstadt 19-21
CH-4056 Basel

+41 (0) 61 225 10 20

barbara.costa@epfl.ch