Hacking Light
Zenovia Toloudi

Photodotes V: Cyborg Garden.
Dystopia

It is a dystopian present. There is so much space, but still the structures are unimaginative: jail-like, illegal to some extent. During the day you are entrapped in a highly controlled, usually rectangular room—your institution—always in front of the magnetic screen. There is a massive amount of invariable light that makes these white cubes unbearable and the atmosphere in the office irreversibly dull. Even the light called “ambient,” “cozy,” “warm”—you name it. Empty words. There is always a better feature for the next fixture. Endless consumption that can increase your production. Corruption! The most vandalous crime against your circadian rhythm. The light nightmare continues at night as well. Pretending to be different, perhaps energy-saving, or simply fluorescent. At its best theatrical, at its worst phantasmagoric. But ultimately polluting and damaging. You cannot sleep, you cannot rest. You are exhausted. No mercy for this disaster. Let's admit it: in the name of profit, innovation, and productivity, this city has been polluting you incurably. It is only now that empathy wakes in you, that you understand the light tragedy of the gamblers, the lab researchers, even the chicken. Yes, you now feel as one of those light scapegoats. The exploitation has to end; you have to un-victimize yourself before it is too late; you need to escape; you have to act.
Urban Myth

You heard about this place, a small guerilla ghetto, hidden inside the guts of a forgotten neighborhood, in that kind of weird periphery, the edge of things. It is not even exotic, or at least not yet. This is where the light homogeneity stops. Not due to an opera of flashing lights, but simply due to the place being off-the grid, off-from-all-kinds-of-grids. In this tribe, you heard that people might be weird: unproductive, yet very progressive; caring for and promoting an ideal world, a truly free environment where all things can happen. Determined, curious, honest, playful, as well as stubborn—exactly like small kids. Their favorite activity is to be connected to the outdoors. Even if it feels cold and unfriendly on their skin and bodies, they are always wired to soil, water, and their surroundings. They like to hack the sun and other light sources, even fire. They plug wires to feed their buildings, spaces, furniture, and often themselves. Light is their energy and food. Their heroes are a plant-like archaic species, which they archive and preserve in transparent museum-like boxes, with the attention and respect that is typically reserved for jewelry, precious stones, or art. This place sounds unfamiliar, even scary. And yet, you don't care whether it is good, bad, popular, or trendy. You must find it now.
Photodotes I: Light Donors.
Detail of Photodotes III: Plug-n-Plant.
Neighborhood
Almost there. You still see some of the familiar buildings—the impermeable, window-less structures. It appears that the tribe occupied some of the city’s abandoned sealed edifices. However, in this ghetto, they look different, with a distorted, re-fabricated anatomy. Some bizarre anthropomorphic objects, geometricized eye- or ear-like machines, are plugged into the façades to detect outdoor conditions. The insertions seem to be harmful to many of the buildings’ textures, which have started to peel off like unwanted zests. In some parts you can peer into the injured empty holes, remnants of a failed operation, and imagine the knives and drills that caused these quasi-archeological treasures. Few of the buildings, only one or two, are even more porous, and feature apparatuses that have the capacity to periodically open and close, accepting only as much light as needed, and transferring the essential outdoor ingredients to the inside, based on the signals recorded by their antennas.

Now you are closer. Yes, different light, unmistakably varying. Everything seems to change quietly and sluggishly, almost lethargically. The fluctuations in atmosphere are unalike: colors, values, tones, and textures; materialities keeps changing; nature moves. You feel the light. Everything alternates in front of you. You wander around the space for a while, feeling the tiny adjustments, the miniature transitions, the minuscule transformations. Your melatonin adjusts. Your temperature re-calibrates. You perceive your own metamorphosis along with the ethereal yet palpable shifts in the surrounding landscape.

The streets resemble the glades of a forest. Density, opacity, and depth create a transparent composition. Not the kind of transparency that comes from see-through matter, but one produced by the gaps between buildings and by the penetrated holes. You walk in and out, up and down, ambling around. One of the urban corridors, a concealed passage, morphs into a narrow staircase with irregular steps, and descends to a yellow beaming fluorescent door.
You fleetingly read the “light-lab” sign on the door before swinging it behind you. This must be the laboratory. The inner space is unexpectedly welcoming: a live interior; a vital domesticity with spongy walls and an absorptive roof. You are inside an architecture that breathes. A network of cyborgian walls comprises the labyrinth-like subdivisions that compartmentalize the space. The freestanding structures are a hybrid mixture of wires and plants, transparent and reflective materials. They are filled with water, liquids, and other translucent and opaque gels, sometimes aglow or radiant. These plants display a high degree of sociality and intelligence. Thick wires branch into thinner ones, like an octopus attaching to a symbiotic habitat. The lines of wiring hack the sunlight, moonlight and starlight, and direct them to various interdependent and co-evolving organisms, structures, and organic materials. The appropriation of outdoor natural light and its introduction into these dark spaces confirms that an open light culture is possible. The whole system is modular but flexible, having innumerable formations; anyone can experience these variable atmospheres and light conditions.

Among these energetic infrastructures, you discover other unfinished projects, such as tunnels, tubes, periscopes, telescopes, and kaleidoscopes—devices and instruments that can bend light and alter perception; virtual light-scapes capable of projecting different realities. These devices are hung from the ceiling or set upright like statues, proudly showcasing the effects of prisms, diamonds, concave and convex lenses, pieces of glass, mirrors, shiny metal and aluminum surfaces. There are hybrids with amorphous shapes, biomorphic geometries, or platonic forms, composed not (only) of carved matter, but of immaterial forces—reflections, refractions, transparency, translucency and shadows.
Photodotes III: Plug-n-Plant.
Left & Above: Photodotes V: Plug-n-Plant.
Occupants

Such an enjoyable environment! A number of people work in the lab, but you cannot tell who is the creator, the producer, or the housekeeper. You can see rosy faces and relaxed expressions whenever they focus on a specific activity or collective affair.

A few of them are obsessed with modulating the immaterial patterns of light, its waves and hues, and document the events with videos and photographs. Concurrently, other residents are involved in form making; they sculpt reflective and transparent modules similar to museum cases; they construct light-transmitting tunnels and tubes; they position and hang diffusing, augmenting, and distorting machines, and collaborate with wirers and solderers to create electrical and digital circuits. Others prefer science and optics, and spend their time measuring distances and wavelengths. They are at home amongst changing conditions and electromagnetic variations, and love manipulating the properties of light—its intensity, frequency and wavelength spectrum—and playing with polarization. They are skillful, intervening upon the multiple rhythms of these living structures, and controlling (things) through their energy-saving consoles. Some are busy with repetitive tasks, but not in the manner of office routines. They graft the tissue of small plant organisms with wires: the stocks and scions are plants and fiber-optic cables respectively, generating hybrid “in-plants” and “in-grafts.” They re-root, remove dead leaves, and decompose matter to bolster the plants and strengthen their structure. From time to time, they feed them with nutrients while stimulating them with sounds and noises. They add moisture, provide fertilization, and perform potting. They un-mix the serpentine cables, always making sure to relieve them of any stress. They take care of the ever-changing and ever-growing infrastructure, which is simultaneously cut off and multiplied, exactly like the Lernaean Hydra. They collect and grow forgotten species and archive them into genealogies while enhancing their shapes with prosthetics and natural illumination. This is how life unfolds in the lab-space where they perform their tests and experiments.
They are grass-root light activists. They like to be free. They are an autonomous movement, and a habitat of sorts. They prefer to sleep, work, and take breaks whenever they please. They have no clocks. They may be obsessed with natural light but do not disdain artificial sources. In their institutionalized version of galleries and museums, they even play around with them. For their own living environments, however, they like to keep it natural. They have written and unwritten papers and protocols on the ethics of light, which all members of the community help preserve and can readily discuss. At their core, is the belief that light should be a common good, available to all. They can’t tolerate tall sun-blocking structures, artificially lighted spaces, buildings without windows, without doors, without perforated surfaces, without even small random holes. They despise the bureaucratic capitalism of universal, artificial light.

They are always generous with visitors, allowing them to participate in this collective form of dwelling. They crave euphoria, strive for light continuity and revere circadian rhythms.
When You Leave...

You feel fresh and renewed, and with increasingly more energy—
enlivened by surprise, randomness and by having no control over what’s
happening. After your long visit, you have learnt how to appreciate
again the sun, the moon, but also halos and rainbows, and all periodical
cycles. It is now dusk, and you can see the stars. You may wander around
all day and night, perceiving the small environmental changes around
you. You are now aware of optical phenomena, illusions, mirages.
You are able to recognize different tonalities of light rays and the patterns
of photons. You can see and you can be seen even if it is dark. You even
feel sleepy. Until today, you were used to harsh shifts and flamboyant
effects. If there was a change, it had always been fast, intense, brutal.
Now you understand and appreciate slowness. You are about to leave
this community, which swings back and forth between outlandish
and local, need and desire, survival and surplus. Your airy, diaphanous,
and fragile bubble starts to expand and contract, and to change
into innumerable configurations.

You conclude that this zone is a wonderland for scientists, artists, and
environmental geeks, but also overtired workers and flâneurs, who, here,
can stroll around slowly, aimlessly, without purpose, reason, or guilt.
Anyone who is curious to experience it and experiment with ethereal
transformations and infinitely subtle variations is welcome to come.

Acknowledgment
The author would like to thank George Toloudis, Panagiotis Stamboulidis, Kristophe
Diaz, Spyros Ampanavos, and Dimitris Papanikolaou for their contribution to the
Photodotes installations; Reuben Son for his music for Photodotes III; and Jessica Cole
for her comments on the text.

All images of projects by Zenovia Toloudi / Studio Z, photographs by Dimitris Papanikolaou,
Kristophe Diaz, and Dominic Tschoepe.
Photodotes V: Plug-n-Plant.