

## 24/7: A Story of Dawn, Day, Dusk, and Night

A podcast

1.

“In the late 1990s a Russian/European space consortium announced plans to build and launch into orbit satellites that would reflect sunlight back onto earth. [...] The initial impetus for the project was to provide illumination for industrial and natural resource exploitation in remote geographical areas with long polar nights in Siberia and western Russia, allowing outdoor work to proceed round the clock. But the company subsequently expanded its plans to include the possibility of supplying nighttime lighting for entire metropolitan areas. Reasoning that it could reduce energy costs for electric lighting, the company’s slogan pitched its services as ‘daylight all night long.’

“Opposition to the project arose immediately and from many directions. Astronomers expressed dismay because of the consequences for most earth-based space observation. Scientists and environmentalists declared it would have detrimental physiological consequences for both animals and humans, in that the absence of regular alternations between night and day would disrupt various metabolic patterns, including sleep.

“There were also protests from cultural and humanitarian groups, who argued that the night sky is a commons to which all of humanity is entitled to have access, and that the ability to experience the darkness of night and observe the stars is a basic human right that no corporation can nullify.

“However, if this is in any sense a right or privilege, it is already being violated for over half of the world’s population in cities that are enveloped continuously in a penumbra of smog and high-intensity illumination.”

2.

There is no place in Poland that qualifies as truly free from light pollution. In 2022, approximately sixty percent of the population couldn’t see the Milky Way, and only twenty percent of Poles were able to switch to night vision mode.

Night vision mode allows the human visual system to function with a minimal amount of light. At night, humans typically see a world devoid of color, as if in a black-and-white film.

For urbanites, developing full night vision is practically impossible. Everywhere one looks, something is illuminated: spotlights, backlit advertisements, round-the-clock illumination of houses, office interiors, building facades, greenhouses, digital signage, shop windows meant to jar us awake, reminding us that, at any second, we can plunge back into the consumption system. We live in a realm of artificial twilight, subjected to perpetual jet lag.

“The notion of an apparatus in a state of low-power readiness remakes the larger sense of sleep into simply a deferred or diminished condition of operationality and access. It

supersedes an off/on logic, so that nothing is ever fundamentally ‘off’ and there is never an actual state of rest.”

3.

### **Artificial lighting sunders the relationship between time and work, upending cyclical temporalities regulated by the movement of the Moon and the Sun.**

In the autumn and winter, large-scale greenhouses are illuminated around the clock, enabling the continuous cultivation of varieties of tomatoes or cut flowers. Uninterrupted production is carried out in 24/7 mode.

24/7 is life’s ecosystem under capitalism.

“The first requirement of capitalism, [according to Marx], is the dissolution of the relation to the earth.”

In Siechnice, Poland, illumination emanating from a forty-five-hectare greenhouse casts an artificial glow over the city, visibly lingering for hours after sunset.

Birds inhabiting the area begin their activity earlier and sing their final song later. The robin sings earliest, followed by the blackbird.

Premature activity at dawn and overextension at dusk can lead to sleep disorders, fatigue, and stress, resulting in decreased fitness and a weakened immune system.

With anthropogenic brightening of the sky, the stages of dawning and dusking blend together, and once-dark night is permanently usurped.

Half of Earth’s insect species are nocturnal, and a significant portion of these are pollinators. They require at least a handful of hours of darkness in order to find food and attract mates. For them, the night sky is a harbor, and the stars and the Moon a basis for navigation.

Under natural conditions, a moth flies in a straight line by using the Moon—the brightest natural source of light on a dark night—to orientate itself. However, when it passes near a lamp, it veers in that direction. A moth we see spiraling around a bulb has been hypnotized by the artificial light. Unable to draw away from this false source, it exhausts itself with its ceaseless flapping and dies before dawn.

The need for darkness in human life is connected to the functioning of our biological clock—in particular, secretion of the hormone melatonin.

The human body begins secreting this hormone at dusk; dawn and the first rays of sunlight provide the signal for melatonin production to wrap up for the cycle.

Melatonin deficiency can be a cause of insomnia.

Insomnia: an extreme condition for the individual, responsible for the catastrophes of our epoch, the Capitalocene.

Insomnia is endured alone.

In the Zielona Góra region, scientists have detected reduced levels of night-time melatonin in nesting storks.

For storks, the hormone plays the additional role of aiding navigation on their long flights to and from wintering grounds.

If melatonin production is disrupted, returning storks may have trouble relocating their nests.

The Earth has been rotating on its axis for 4.5 billion years, during which it has undergone constant transformation. Notwithstanding other variables, it is day and night that have marked the eternal division of time.

Life on Earth evolved in accordance with the transition from day to night and back again.

The blurring of the boundaries delineating these stages impacts the behavioral patterns of all organisms. Little is known about the consequences of this phenomenon.

4.

The 24/7 regime commandeers the eternal and fundamental means of determining variables of the 24-hour cycle, light and darkness, day and night, and transitional stages such as twilight and dawn.

In 24/7 mode, everything transpires in real time; this isn't contemplation of the here-and-now but a framework for machinic functioning.

It throws off the rhythm of life.

A consequence of living in such an environment is to be flooded by false, artificial light.

Left behind is a disenchanted world, devoid of dreams, of illusion, unshaped by shadow.

One bereft of ghosts that stimulate the imagination, cut off from deep history embedded in the dark sky.

By advancing consciousness into the darkness, we stare into the eyes of irreversible changes that, on a micro scale, prevent us from sleeping, and, at the macro, commit us to ceaseless activity.

Humans, as animals functioning in diurnal mode, have sought ways to dispel the dark since the dawn of time. Even so, it isn't any atavistic need for light that pollutes the firmament, but capitalism, devouring the planet below.

This is the result of a disconnect from deep time,

cosmic time,  
the chronometry of the Earth's rotation around its own axis.

5.

In the Age of Enlightenment, it was light that symbolized Reason—and darkness, Emotion.

Circadian rhythm is the complementary oscillation between night and day.

We need phantoms, shadows, and nightmares—the same as we need the taste of water on our lips, sun, touch, or information about light pollution.

Looking at a satellite image of the Earth at night, we behold the apparent magic of lights defining the contours of continents and filling their interiors. In the majority of areas inhabited by people, artificial light pollutes the night sky. However, from the vantage of satellite imagery, the effect is one of enchantment, twinkling pinpricks of light signifying clusters of human life.

It is a landscape of loss.

Loss of energy: extracted from the planet's resources and consumed.

Artificial lighting accounts for ten percent of energy consumption, and yet little of it achieves any intended benefit. Most just leaks out into the sky.

Loss of dark skies and the possibility of spotting nebulae, galaxies, star clusters, and meteorites—the light of which is subsumed by the glow of artificially illuminated skylscapes.

The landscape of unceasing human activity, production, and accumulation of capital is the color of a rusty smear, brown and yellow spots marring the sky.

We are squandering the landscape of the circadian rhythm. The planet's rhythm.

6.

Poland lacks legal and systemic mechanisms for regulating light emission. It is left to grassroots groups to protect night in its natural state. Field observations are carried out by individuals from research institutions, activists, members of various associations, and local communities, as in the case of the residents of Sopotnia Wielka, a village where the community cooperated to establish restrictions for artificial lighting, and a segment of the dark sky was restored. Such grassroots initiatives are behind the creation of dark sky parks in the Bieszczady and Jizera Mountains.

In the distant past, a community would choose individuals to tend the fire and ensure the collective safety of the group as it slept through the night.

Today, it is local communities that defend their stretch of dark sky.

7.

Whether we are conscious of it or not, sleep is a state in which we submit ourselves to the care of others. Although a solitary or private activity on the surface, in practice sleep remains tethered to interpersonal networks of mutual support and trust. We sleep, and because we do, a time for pausing, for resting, is cyclically returned to our lives. The state of sleep may seem fragile and under threat from the forces of late capitalism, but it nonetheless resists being appropriated.

“The scandal of sleep is the embeddedness in our lives of the rhythmic oscillations of solar light and darkness, activity and rest, of work and recuperation, that have been eradicated or neutralized elsewhere.

“In its repetition and unconcealment, it is one of the unvanquishable remnants of the everyday.”

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Quotations are from Jonathan Crary’s book *24/7: Late Capitalism and the Ends of Sleep*.

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