

Lighten Up! symposium:

Encounters between Art and Chronobiology

Friday 24 March 2023
EPFL, Foyer SG

→ [Register to participate](#)

09:00

Welcome & introduction
Sarah Kenderdine

Brightness – Daylight / Outside In

Moderator: Marilyne Andersen

09:15

Light and Clocks for Life on a rotating World
Christian Cajochen

09:30

New Digital Clocks: Mooring and Unmooring to the
Natural Landscape through Art?
Anna Ridler

09:45

Bees and Art: in the Company of Scientists
Anne Noble

10:00

Ecology of Light
James Carpenter

10:15

Slow Light
Siegrun Appelt

10:30 – 11:00

Coffee break

Moderator: Giulia Bini

11:00

Light-Oriented Ontologies – The Beginnings
Alan Bogana

11:15

How we think about Time
Ted Hunt

11:30

Clocks meet Numbers
Bharath Ananthasubramaniam

11:45

Synchrony or Synchronicity? Metronomes, musical and
biological Time
Robin Meier Wiratunga

12:00

Q&A

12:30 – 13:30

Lunch break

Darkness – Sleep-wake cycles / Inside out

Moderator: Anna Wirz-Justice

13:30

Why should we Sleep in the Dark?
Elizabeth Klerman

13:45

Good Night Diamond, please stop shining:
Darkness, the luxury Good of the Future
Rafael Gil Cordeiro

14:00

Sundial / Night Watch: the Entanglement of the Body in
Clock and Calendrical Time
Susan Morris

14:15

Revealing the Beauty of our inner Rhythms with
data-driven Art
Kirell Benzi

14:30

The dreaming Brain
Francesca Siclari

14:45

Sweet Solar Dreams: Between Light and Darkness
Liliane Lijn

15:00

Q&A

15:20 – 15:40

Coffee break

It's About Time – Round Table

Moderator: Sarah Kenderdine

15:40

Marilyne Andersen (chronobiology in architecture),
Colin Fournier (daylight architecture), Till Roenneberg
(chronobiologist), Helga Schmid (Uchronia)

16:30

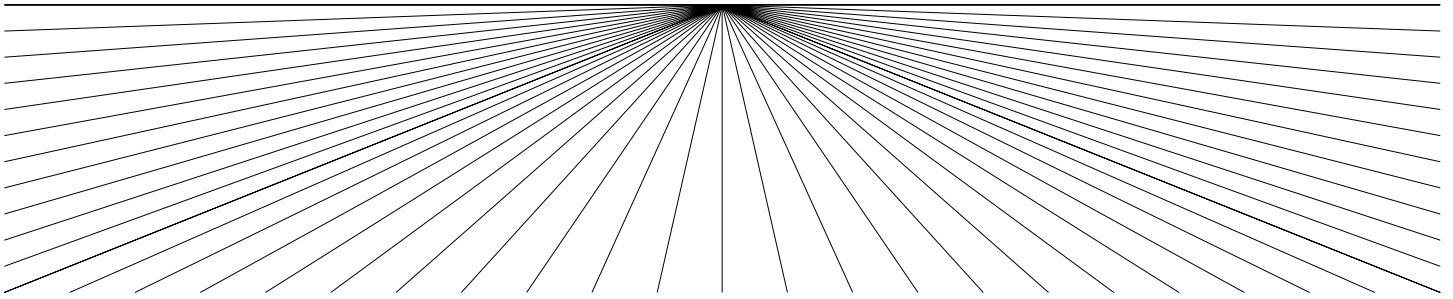
Q&A

16:50

Closing words
Sarah Kenderdine

The exhibition is open until 7 pm.

EPFL Amplifier for Art,
Science and Society
Pavilions



Lighten Up! symposium: Encounters between Art and Chronobiology

All life on earth has evolved within the solar framework of day and night. This ubiquitous environmental light-dark cycle has been internalised into molecular clocks that predict the appropriate time of day behaviour. Whether cyanobacteria floating in a pond, crabs following the tides, rodents burrowing in the day and emerging at night, sheep lambing in spring, birds migrating to the warm south – circadian, lunar, and seasonal rhythms impact physiology, reproduction, and survival. It is the same in humans. However, in our 24/7 society, the natural day-night cycle has been obscured by indoor living and working under artificial lighting, with long-term consequences for health and well-being. The tenets of chronobiology are explored by artists in multiple ways to light up our crucial dependence on daily cycles, and we invite everyone not to lose this innate connection to nature.

Brightness

Outside in: Cyclic light and dark regulate all aspects of behaviour (Christian Cajochen). Why does our circadian clock require light every morning? How can light treat winter depression and sleep disorders? The artists will explain how plants flower at certain times of day (Anna Ridler), or how bees navigate with the sun (Anne Noble); they will highlight why it is so important that buildings let in as much daylight as possible (James Carpenter) and why society needs to rethink its relationship with light (Siegrun Appelt). How did sensitivity to light evolve and shape ancestral organisms (Alan Bogana)? More abstractly, how does the way we view time influence how we occupy time (Ted Hunt)? What do the mathematics of rhythms tell us (Bharath Ananthasubramaniam)? And what beauty evolves out of playful synchronisation of fireflies with light (Robin Meier)?

Darkness

Inside out: Our body rhythms are endogenous, they continue to tick with a near-24-hour rhythm when isolated from time cues. The most obvious rhythm we know is the sleep-wake cycle, regulated by two processes, the circadian clock that determines timing and structure, and sleep pressure that builds up during wakefulness and declines during sleep (Elizabeth Klerman). What does a night's sleep look like when transformed into a 3D sculpture (Rafael Gil Cordeiro)? Three artists visualise the circadian sleep-wake cycle: documented as a light box or steel column (the late Andreas Horlitz), as tapestries (Susan Morris), or as novel data-driven simulations (Kirell Benzi). We enter the night: the layers of sleep stages and the mysteries of dreams (Francesca Siclari), and are confronted with a trio of dreaming heads and waking brains (Liliane Lijn).

It's About Time

In a round table format, four participants discuss the experience of time. Beginning with the concepts of chronobiology and entrainment of the circadian clock by light (Till Roenneberg), an artist considers a temporal, fluid Utopia, consciously experimenting with subjective time (Helga Schmid). How do we experience day and night in the density of the built cityscape (Marilyne Andersen)? What would we gain in quality of life if our house was designed for sunlight falling every hour into a different room, following our daily pattern of activities (Colin Fournier)?

Lighten Up! On Biology and Time 24.3. – 30.7.2023

The interactions of art with the science of chronobiology are shown in Lighten Up! On Biology and Time through physical, perceptual and sensory modes. The exhibition reminds us that we are losing contact with our natural environment in many dimensions. In particular, most of us experience a diminished exposure to daylight, which is important to keep all aspects of our daily lives in synch. More light! Yes, more light during the day but also more darkness at night, not only to see the lost stars of our peerless universe but to balance every living organism's daily rhythms for health and well-being.