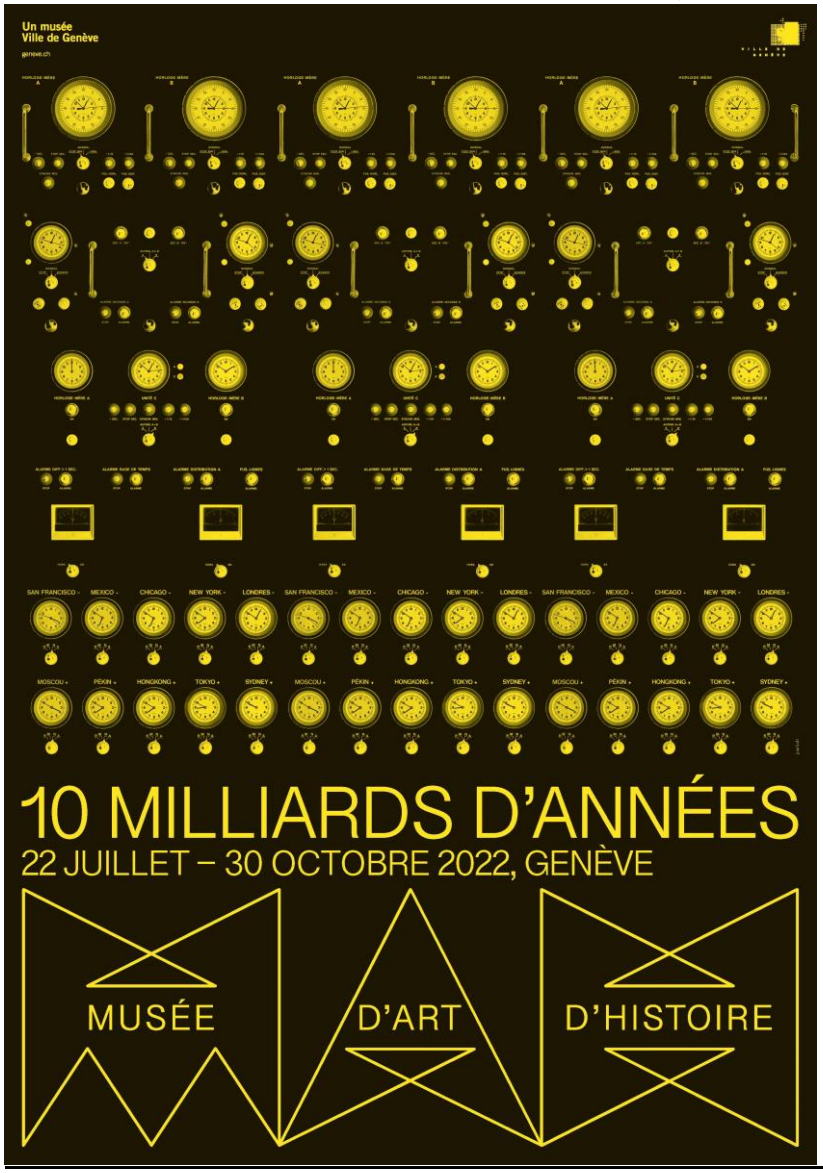
MUSÉE D'ART D'HISTOIRE

# PRESS KIT

## 10 BILLION YEARS
## JULY 22 – OCTOBER 30, 2022

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MAHGENEVE

*10 Billion Years*, July 22 – October 30, 2022

*Geneva, May 2022*—For its second L exhibition, the MAH has decided to focus on the passage of time. With Geneva being both a watchmaking city and home to CERN, *10 Billion Years* creates a dialogue between the notions of universal time and quantum time. In other words, universal time is quantifiable by instruments, while quantum time is related to our experience of it. The work of master horologists and artists is brought together in the Palatine Galleries to create an unusual reflection on the fourth dimension.

*10 Billion Years* takes its title from the estimated lifespan of our Sun. Thanks to this enormous star, humans made the first measurements of time. In recent years, scientists have been studying the infinitely small, what is known as the Caesium atom, to perfect this calculation. However, this quantum time is not evaluated in the same way: its perception is contextual and depends on the person who observes it. Does that mean we might contrast an infinitely great time, on which humanity has been based for millenniums, with a time based on the infinitely small?



This exhibition seeks to identify a possible tension between these two notions. Accordingly, in terms of measurable time, watchmakers have accomplished precise work throughout the centuries. In terms of quantum time, artists stand in for scientists. Just as the measure of quantum time depends on the observer, appreciating a work of art depends on the viewer. Like magicians, artists can make us forget the notion of time, manipulate its passage, and have us feel its eternity or fleeting nature.

Comprised of pieces selected from the MAH's timepiece collection and contemporary art, the exhibition's trajectory plays on this duality to reveal a common trait: the creative spirit. When developing a utilitarian object, some timepiece designers ingeniously realise multidimensional work. By the same token, certain artists enjoy exploring the passage of time while others act as master horologists.

From a simple eighteenth-century oil lamp to the electronic master clock system used at the Geneva airport, measures of time chime out in an ethereal installation that plays off the contrast between the infinitely small and infinitely great. This quest for scientific rigour opens the door to imagining the infinitely great—for example, an impressive orrery depicting the movements of the planets around the sun, which is on loan from Geneva's Musée d'Histoire des Sciences. Aesthetics are not excluded from rigour, as is evident in the wide variety of small and medium-size timepieces that emerge from an enduring horological tradition. Finally, when not commissioned to make decorative pieces (James Pradier), artists take hold of the fourth dimension to play with it (Jonathan Monk), formalise the idea of a time warp (Philippe Mayaux) and give us an idea of the infinite (Alicja Kwade, Gianni Motti). Through *10 Billion Years*, the connection between the artistic and scientific worlds is brought to light.

Finally, in this vast reflection on time, the MAH presents two parallel exhibitions, *Pastime* and *Racing Time*, as well as a project titled '*Time Capsules 2045*' at the GamMAH. The latter investigates the notion of objects or artworks meant to be discovered after a period of time. Some will be produced live at 7 pm on September 1, October 6 and October 20 at the GamMAH.

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| General information | Musée d'Art et d'Histoire<br>2 Rue Charles-Galland – 1206 Geneva<br>Open Tuesday-Sunday, 11 am – 6 pm<br>Thursday, 12 pm – 9 pm<br>Admission is free<br><br>Website: mahmah.ch<br>Ticketing: billetterie.mahmah.ch<br>Blog: mahmah.ch/blog<br>Online collection: mahmah.ch/collection<br>Facebook: facebook.com/mahgeneve<br>Twitter: @mahgeneve |

## 1. Introduction

Linear time, the passage of which is reproduced with precision by horologists is readily contrasted with quantum time, which is researched by scientists. The Musée d'Art et d'Histoire (MAH) hopes to explore this ever-so-prevalent dichotomy in Geneva, the birthplace of the watchmaking tradition and the home of the European Organization for Nuclear Research (CERN).

Drawing its title from the estimated lifespan of our Sun, thanks to which the first measurements of time were made, the exhibition *10 Billion Years* seeks to reveal the tension that exists between these notions of linear, universal and measurable and quantum time, which is related to the personal experience of the observer. What's original here is how the work of physicists is replaced by watchmakers and artists, some of whom delightfully manipulate the notion of time.

Watchmakers dissect time: they divide and mechanise the natural time of the cosmos where life cycles are inscribed. They miniaturise the movements and rhythms of the universe. Not only do they break down hours, minutes and seconds, even femtoseconds, but they invented the perpetual calendar and can contain the moon's phases in a portable timepiece. Thanks to them, society knows the rules of punctuality, synchronism and globalised time, and it questions the arrow of time and its irreversibility.



In their endless search for what's even smaller, more precise, more extraordinary, watchmakers are echoed by artists: they have skilful hands, acquired through practise and experience, a confident eye and ingenuity guided by invention and imagination. Each opens the horizon of the fourth dimension. Together, they make palpable the affronts of time, the fragility of creation and the menace of death, which dominates all.

Drawing from the MAH's timepiece collection and based on contemporary art, and by lifting parallels between these two fields, it can only be noted that they are not at odds: artists are known to be able to break up time, to make it disappear or have us at least forget it, but they can also formalise time through pieces that reveal the passage of years, hours and seconds in real-time; and artisan watchmakers, masters of precision, are capable, through their imagination and audacity, to create genuine works of art. The connection between these two worlds is none other than the creative spirit.

## 2. Scope of the exhibition

Starting with Philippe Mayaux's *Sinusoidon* (a mechanism that erases the trace it has just left on a sand-covered surface) and ending with Brognon Rollin's *24H Silence* (a jukebox that compiles one hundred sixty minutes of silence recorded during commemorative ceremonies), the trajectory of the exhibition invites reflection on the notion of the passage of time, which humans continue to strive to quantify in the most perfect way possible.

### a. Linear time

As the only non-mechanical instrument to measure time in the exhibition, an eighteenth-century oil lamp reminds viewers of the different paths taken through the centuries to find one's bearings in a dimension where relativity has been proven. Far from the simplicity of this flame, a large orrery or planetarium built during the same era is a complex crank-operated mechanism that illustrates the movements of the planets, the changing duration of days and nights, the passage of hours, and more. The MAH's collection abounds with similar technological innovations, for example,

André Millenet's astronomical table clock, which attests to the genius of Geneva's horological tradition. Dating from 1968, Patek Philippe's electronic master clock system from the Cointrin Airport projects us into a time period when radio-synchronization with an atomic clock, which signals time to the femtosecond, has become indispensable in a world that relies on computer networks.

### b. Masterpieces in time measurement

While technological innovation is at the heart of the profession, contemporary watchmaking pursues another long tradition that has contributed to its prestige: aesthetic exploration. Examples of this exploration include jewellery-watches for wearing around the wrist, finger or neck, or as a pin or pocket watch; a pocket watch delicately decorated with enamel portraits; clocks with baroque scrolls, stylised in shape, their mechanism visible. Artisan watchmakers are true artists who appreciate the aesthetic function; it will take some effort to distinguish the bell tower clock once installed at the Temple de la Fusterie (1714) from Jean Tinguely's mechanism *Si c'est noir je m'appelle Jean* (1960).



### c. Artists playing with time

This dividing line between watchmakers and artists is much more tenuous than it appears. As distant relatives of James Pradier, the sculptor of a bronze piece on a marble pedestal in which a clock is housed, the contemporary artists brought together here all play with time. Suspended, looped, slowed down or even accelerated, time can be perceived in entirely different ways.

Let us cite Jonathan Monk and his emblematic piece among the artists who integrate the linear dimension of time into their work. Titled *The Odd Couple*, two grandfather clocks selected from the MAH collections function in unison when the exhibition opens. However, they desynchronise as the hours pass.

Like *Sinusoidon*, which launches the exhibition trajectory, other pieces evoke the idea of the infinite, even of perpetual movement. Two examples are the video in which Gianni Motti is filmed briskly traversing the twenty-seven kilometres of the long circular tunnel belonging to the CERN particle accelerator and Alicja Kwade's suspended iPhone, which is programmed to identify the constellations it is pointed towards. This exhibit is brought into a rotating movement counterbalanced by a simple rock acting like a pendulum weight.

## 3. An ethereal installation

The installation was designed to be as discreet as possible, to totally disappear in favour of the work. Pieces of diametrically opposed formats are therefore staged to reflect the imagined contrast between linear time and quantum time: monumental clocks dominate over miniature watches; pieces sometimes evoke the infinitely small, sometimes the infinitely long (François Morellet). Finally, Marc Camoletti's building is also honoured. In the Palatine gallery, where the twelve zodiac signs decorate the ceiling, the cosmographic dimension of the ornamentation is highlighted.

## 4. Focus on selected pieces



Day and Night Clock
Eastern Switzerland, circa 1780
Inv. AD 3530 © Musée d'art et d'histoire de Genève

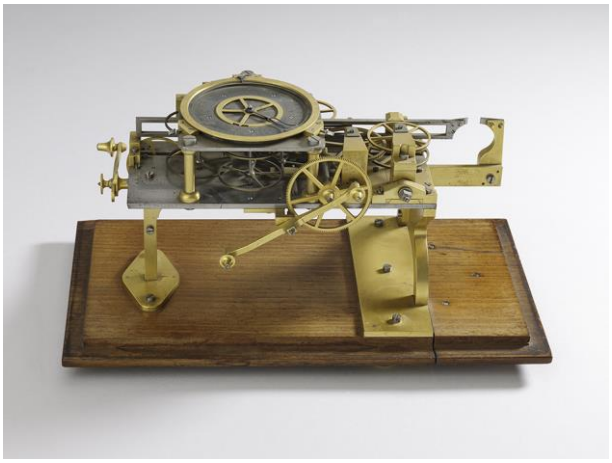
Night clocks first appeared at the end of the seventeenth century. Developed in Rome by the Campani brothers for Pope Alexander VII, they replaced weight-driven timepieces known as lantern clocks, types used in private homes as early as the sixteenth century. The first night clocks were richly decorated masterpieces, true little Baroque altars often equipped with silent escapements, hence their name in Italian, *Orologi della Morte*.

The principle of their functioning was adapted outside of Italy, although their aesthetic was not as ornate. The time could be read in the dark because of a candle placed inside the clock. An openwork disk indicates the hours and its fractions turn instead of hands, showing the time through transparency. Some watchmakers went so far as to imagine a system where the hour was projected onto a wall.

André Millenet
Astronomical Table Clock
Geneva, 1712 – 1713
Gift from the Société Auxiliaire to the Musée Archéologique in 1903
Inv. 1429 © Musée d'art et d'histoire de Genève



Table clocks made in Geneva were rare, but one of them is among the cornerstones of the MAH's collection, signed and dated in this way: "God graced the watchmaker and engraver Millenet with the invention and making of this present piece in the year 1712/1713 in Geneva." Named a *bourgeois* or resident of Geneva in 1762, Millenet can be considered an innovator on many levels. As an engraver, he created the decoration of the silver-plated copper case executed after Pierre Bourdon's ornament prints were published in the seventeenth century. He was an innovative watchmaker. The presence of the central second hand, part of its spring-based movement, was new at that time; the minute hand had been widely adopted, but the second hand hardly ever appeared on clock dials. The Genevan watchmaker achieved a breakthrough when he concentrically united the indices on a single dial when they had most often been displayed separately. Starting from its centre, this table clock presents the phases of the moon in one window, the date of the lunar month, the day of the month, the hour based on twenty-four, the minutes and seconds, the month, day and week in another window, the position of the day in the year, as well as the divisions of the tropical year.



Benjamin Oltramare
Micrometre to the 1/3600th Millimetre
Geneva, 1825 – 1840
Inv. 2011-0053 © Musée d'art et d'histoire de Genève



Brought into the MAH in 1944 from the Musée de l'École d'Horlogerie in Geneva, this micrometre measures down to the 1/3600th millimetre: its size contrasts the finesse of its objective, which allows watchmakers to execute minuscule pieces with this precision. The micron used in horology expresses the possible tolerance in the making of components, the accuracy of which determines the precision of the measurement.

Benjamin Oltramare (1797 – 1843), a member of the Classe d'Industrie de la Société des Arts since 1838, introduced this instrument in 1840 for measuring thickness. In 1828, established as a watchmaker on Geneva's Rue de la Machine, he showed a repeater watch at the Exposition des Produits de l'Industrie Genevoise. It had a stone cylinder escapement, pare-chute and compensator, inspired by the work of Abraham-Louis Breguet, whose shock protection system, known as a pare-chute, is one of the best-known inventions.


Patek Philippe & Cie
Electronic Master Clock System from Cointrin Airport
Gift of the company, 1983
Inv. AD 4540 © Musée d'art et d'histoire de Genève

Made in Geneva's Acacias district by Patek Philippe in the 1960s and 1970s, radio-controlled timekeeping units can still be found in certain watchmaking manufactories. They are a reminder that the company organised a production unit dedicated to electronics as early as 1946. The marine quartz chronometer (the Naviquartz), the photoelectric quartz table clocks, and the modules for central electronic master clock systems came from this production.

Known for each being unique, because each was made on-demand and used modules that could be juxtaposed, these stations met the client's specific needs with the innate precision of the master clock installed permanently. They represented the height of precision by being brought into line with frequencies from transmitters like the one in Prangins, used to transmit a pilot signal by radio to indicate the legal Swiss hour.

The Parliament Building in Berne had one, as did the Cointrin Airport: the master clock, accurate to a thousandth of a second, synchronised the hour for multiple clocks connected to it. In our cities, most clocks for bell towers, schools and train stations are also radio-synchronised, as are traffic lights.

10/20

Aimé Billon
Neuchâteloise Wall Clock, with Alarm and Music Box
La Chaux-de-Fonds, circa 1840
Gift of Christiane Ody-Barde, 2003
Inv. H 2022-0003 © Musée d'art et d'histoire de Genève

The French word for a clock, *horloge*, is from the Latin *Horologium,* 'that which tells time', and designates any instrument meant to display time. The Neuchâteloise clock refers to a decorative wall clock style developed in the Neuchâtel mountains in the last decades of the eighteenth century.

The prototype associated with the Neuchâteloise wall clock was inspired by the Louis XV style and is inserted in a violin shape. Between the second half of the eighteenth century and 1880, the manufacturers of Neuchâteloise cases offered their clients various decoration possibilities harmonised with the three elements that make up the clock: the hood, the case and the base. The façade consists of two glass sections (lunettes) that form a door in front of the dial or two openings connected by a lock-button: the larger shows the dial and the hands beneath the domed glass, and the other, which is smaller, reveals the pendulum in action. A cord coming from the sides of the case, either to the right or left, allows the clock's owner to set the alarm or to hear—when desired—the sounding of the hour.

Aimé Billon (born in 1791) from La Chaux-de-Fonds is one of the best-known craftsmen of his generation. He managed the development of cases in his workshops, from the construction to the decorative painting, varnish, bronze and engraving. He took on the role of *établisseur*, assembling clocks and inserting their components and music mechanisms into their cases before selling.

The Billon clock, one of some thirty similar pieces installed in the exhibition, is distinguished by its notch movement, which sounds a gong at regular intervals or upon request. Every hour, a minute before the ringing, the music box is triggered through a hammer joined to the bell. On the side of the box, three positions command no ringing, the change of tune every hour or even the repetition of the same tune, chosen from among the eight available.

George Adams
Orrery or Planetarium
London, 1775.
Gift of Sir Richard Aldworth Neville (1717 – 1793, spouse of the daughter of the first Syndi François Calandrini, resident of Geneva since 1772, to the Bibliothèque de l'Académie in 1775). Musée de l'École d'Horlogerie, transferred in 1944 to the Musée d'Art et d'Histoire, transferred to the Musée d'Histoire des Sciences in 1964.
MHS inv. 818




*The Planetarium* was made by famous London instrument maker George Adamas, Jr. and given to the Bibliothèque de l'Académie de Genève in 1775 as a gift from a wealthy Englishman. When this mechanical masterpiece was set in motion, noblemen and wealthy Englishmen considered it a prestigious object. It was presented in experimental physics courses, where it introduced the mysteries of the mechanisms of the sky in the sitting rooms of seventeenth-century high society.

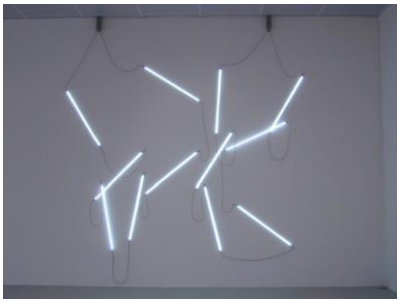
A technological masterpiece, this instrument mechanically reproduces the solar system and the relative movements of its principal planets using cranks. Mercury and Venus turn slowly around the Sun. Driven by its own rotating motion, Earth pivots on its axis over twenty-four hours, which are counted by a time dial. The Moon moves around Earth over twenty-nine days, which are tallied by another dial. A clever technical device also follows the evolution of the phases of the Moon as it travels around Earth. On the outside rail, the three other planets known at the time to be outside the solar system are arranged in a fixed position: Mars, Saturn and Jupiter.

Exceptionally removed from its case at the Villa Bartholioni, which is home to the Musée d'Histoire des Sciences in Geneva, this masterpiece, in a mirror effect, echoes the Palatine gallery's painted ceiling, which is decorated with the signs of the zodiac.

Alicja Kwade
*Reflection of Attraction*, 2017
Private collection, photo : Roman Maerz



For Alicja Kwade (born in 1979 in Katowice), every enigma, whether scientific or philosophical, offers a source of artistic research and engages the questions of space and time at the heart of her work. *Reflection of Attraction* stages an iPhone, displaying an electronic star chart, moving to a ticking rhythm and showing the universe as it would appear if Earth didn't exist. The installation combines the digital and the mineral in a single stroke, evoking a kinetic sculpture that questions the perception of spacetime and its representations.



François Morellet
Π weeping neonly n° 1, 2001
12 white neon tubes 125 cm, 2 transformers 7000 V and high voltage cables
450 x 450 cm, Edition 1 of 1
Private collection © Archives Morellet

Through his work, François Morellet (1926 – 2016) proposed to envision geometry as a space of disorder. And through often straightforward protocols, the artist did go beyond the limits of linear or ordered structures. Here the straight lines of the neon and cables that connect them seem to fall like the leaves and branches of a weeping willow. This is how the artist reminds us that it is, in fact, randomness that dominates the universe and that our human ambition to find order in it is very often both absurd and vain.

Brognon Rollin
*24H Silence* (157 / 1,440 min.)
Jukebox Seeburg 1974
2020




The artist duo Brognon Rollin (born in 1978 and 1980 in Belgium and Luxembourg) compulsively collected a series of recorded minutes of silence. This installation reminds us that the world needs to ease its perception of time passing by. Silence reveals its density and fragility through the respect and homage that emerges when human activity is suspended. Time's duration is certainly quantifiable, but its perception is a strangely contextual phenomenon.

To whom it may concern,

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Thank you very much.

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**Aegidius Ungarus**
Pocket Watch with Alarm and Tactile Dial, Buda[pest], 1520 – 1530.

8.53 x 6.1 x 2.8 cm
Gift of the Union des Fabricants d'Horlogerie de Genève et Vaud, 1948; Ernst Sarasin-von der Mühll historical collection
Inv. AD 0339




**Martin[us] Rager**
Painted Iron Gothic Clock with Alarm [Chur], 1679

31 x 15.5 x 16 cm
Inv. P0166


Day and Night Clock
Eastern Switzerland, circa 1780

50 x 30 x 22 cm
Inv. AD 3530

**André Millenet**
Astronomical Table Clock
Geneva, 1712 – 1713

23.5 x 15.5 cm
Gift from the Société Auxiliaire to the Musée Archéologique in 1903
Inv. 1429
© Musée d'art et d'histoire de Genève, photo. : F. Bevilacqua

**Aimé Billon**
Wall Clock with Alarm
La Chaux-de-Fonds, circa 1830

95 x 38.5 x 15.5 cm
Inv. AD 8075
© Musée d'art et d'histoire de Genève, photo. : M. Aeschimann



**Berthoud**
Paris, circa 1820
'Time'
Repeater pocket watch with viewing window and automated scene

76 x 56 x 17 mm
Inv. H 2021-0018
© Musée d'art et d'histoire de Genève, photo. : B. Jacot-Descombes

**Ami Doehner**
Miniature Pocket Watch with its Key
Geneva, between 1820 and 1840

Inv. H 2009-0021
© Musée d'art et d'histoire de Genève, photo. N. Sabato

**Marcel Constant Bastard**
Scarab-Form Watch Ring
Geneva, circa 1910

2.7 x 2.32 x 2.44 cm
Gift of Marie Madeleine Bastard, 2008
Inv. H 2008-0140
© Musée d'Art et d'Histoire de Genève

**Benjamin Oltramare**
Micrometre to the 1/3600th Millimetre
Geneva, 1825 – 1840

13.3 x 24.1 cm
Inv. H 2011-0053
© Musée d'art et d'histoire de Genève, photo. : B. Jacot-Descombes



**Peter Haden** (1938-)
*The Fisherman*, Table Clock
Geneva, 1996

14,8 x 17 x 19,5 cm
Inv. H 96-0079
© Musée d'art et d'histoire de Genève, photo. : B. Jacot-Descombes

deLaCour
Pierre Koukjian
Bichrono chronograph bracelet watch, series 1
Geneva, 2003

5.2 x 6.2 x 1.4 cm
Gift of the company, 2013
Inv. H 2013-0048
© Musée d'Art et d'Histoire de Genève

*Vidis horam, Nescis horam*
Mantel Clock [memento mori]
France (?), 19th century

26.5 x 40.2 x 21.2 cm
Inv. AD 3720
© Musée d'art et d'histoire de Genève, photo. : B. Jacot-Descombes

Patek Philippe & Cie
Electronic Master Clock System from Cointrin Airport

160 x 60 60 cm
Gift of the company, 1983
Inv. AD 4540
© Musée d'art et d'histoire de Genève, photo. : B. Jacot-Descombes

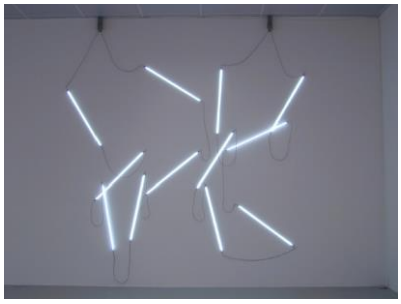


Brognon Rollin
*24H Silence*

Jukebox Seeburg 1974, 2020
© Leslie Artamonow

Alicja Kwade
*Reflection of Attraction*, 2017

© Private collection, photo : Roman Maerz



## François Morellet
π weeping neonly n°1, 2001

12 white neon tubes 125 cm (49,21 in), 2 transformers 7000 V and high voltage cables
450 x 400 cm (177.17 x 157.48 in)
Edition 1 of 1
N° 01014
Private collection © Archives Morellet

## Exhibition room

© Musée d'art et d'histoire de Genève, photo. : B. Jacot-Descombes



## Exhibition room
Mural clocks

© Musée d'art et d'histoire de Genève, photo. : B. Jacot-Descombes

## Exhibition room
Casimir Sivan's Collection

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## Exhibition room

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Exhibition room
Swatch® wristwatches

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Exhibition room
*Sinusoïdons 2 (Don't walk the line)*(2014), Philippe Mayaux

© Musée d'art et d'histoire de Genève, photo. : B. Jacot-Descombes



Exhibition room
Π weeping neonly n° 1 (2001), François Morellet

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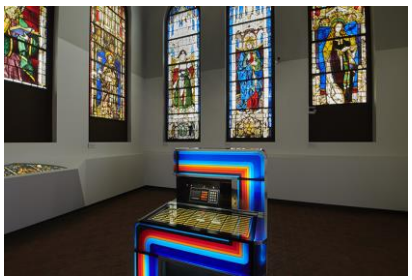

Exhibition room
*24H Silence,* Brognon Rollin in the stained glass room

© Musée d'art et d'histoire de Genève, photo. : B. Jacot-Descombes