

will therefore always melt, or something that shatters will never reconstruct itself (like it does, for example, when we can play a film backwards).

A pioneer in thinking about entropy was the physicist and mathematician Ludwig Eduard Boltzmann (Vienna, 1844 – Duino, 1906). Boltzmann introduced new insights in statistical mechanics, the science that describes physical phenomena in terms of the statistical behavior of large numbers of atoms or molecules, especially with regard to the distribution of energy. He also challenged or nuanced the assumptions around the arrow of time. He was the first one to suggest that, at a macroscopic level, the reversibility of time is not impossible, just highly improbable. At the start of his career, Boltzmann's conclusions earned him important positions at the universities of Vienna and Graz. His later theses about the nature of atoms, however, were highly criticised by some of his colleagues. Furthermore, he suffered from what is today known as bipolar disorder, which caused him to suffer long periods of depression. During a trip to the Adriatic, he committed suicide; he was sixty-two years old.

Teresa Cos undertook Boltzmann's last tragic journey, from Vienna to Duino. She went to see the places that the Austrian scientist is likely to have visited: the historical museums and gardens of Vienna, the enchanting nature of the Karst Plateau, the sacred sources of the Timavo River, the castle of Duino (where Rainer Maria Rilke later wrote his *Duino Elegies*), the Südbahnhotel in the Austrian resort of Semmering (where Freud also stayed), and the large villas in the same area—expensive holiday destinations for the Viennese upper classes during the reign of the Austro-Hungarian Monarchy (1867-1918).

The film installation, *The Measure of Disorder*, opens and closes, however, with an image Cos filmed at the other side of the world, inside the Trump Tower in New York: a top down shot of the glittering, gold-framed escalator. Shot from above, the stairs appear as a horizontal motion moving steadily through the frame: abstract, manipulated. The sound, too, is confusing: we hear the thudding noise of a train slowly reaching cruising speed until cheerful and romantic easy-listening music sets in. This combination of sound and image has a hypnotizing effect.

In the next sequences we see more tinsel in the Trump Tower lobby: planters, a waterfall, golden mirrors. In the backdrop, we hear once the nostalgic steam engine train again, though now it's the whistle, which seems to fade into Cos singing. With *The Measure of Disorder*, Cos takes us with her on a voyage. She also presents a puzzle, made of references, metaphors and very personal

# TERESA COS THE MEASURE OF DISORDER

(FIRST FLOOR)

(2018, 41', in loop)

'A person living in this reverse world would in no way have sensations different from ours. He would simply call our future past, and vice versa.'  
(Ludwig Boltzmann, 1898)

'We are time. We are this space, this clearing opened by the traces of memory inside the connections between our neurons. We are memory. We are nostalgia. We are longing for a future that will not come.'  
(Carlo Rovelli, *The Order of Time*, 2018)

For her new two-channel video- and sound installation, Teresa Cos (b. 1982, Italy, lives and works in Brussels and London) follows the trail of Austrian scientist Ludwig Boltzmann (1844-1906), who is known not only for his groundbreaking findings into the phenomenon of entropy, but also for his tragic suicide in the village of Duino, not far from the Adriatic town of Trieste (the region where also Cos grew up).

At the exhibition, the artist makes a non-linear reconstruction of Boltzmann's last journey, from Vienna to the 'Austrian Riviera', across the Alps and the territories of the Austro-Hungarian Empire at the turn of the twentieth-century.

The images are presented to the tune of an evocative soundtrack that includes digitally distorted voices. Playing with the conventions of cinema, Cos mixes personal anecdotes with 'grand' socio-political movements. Thus, *The Measure of Disorder* offers a reflection on the human perception of the concept of time, memory and on the (ir)reversibility of things happening.

Teresa Cos's work comprises still and moving images, sound and music, and explores the human condition as a perennial negotiating between individual subjectivities and global societies. Her work zooms in on the behaviour of individuals and groups. Often accompanied by dry humor, she attempts to reveal absurd stagnations in the 'ever different, yet ever the same' habits required by our everyday private and socio-political rituals and by the structures and institutions linked to them.

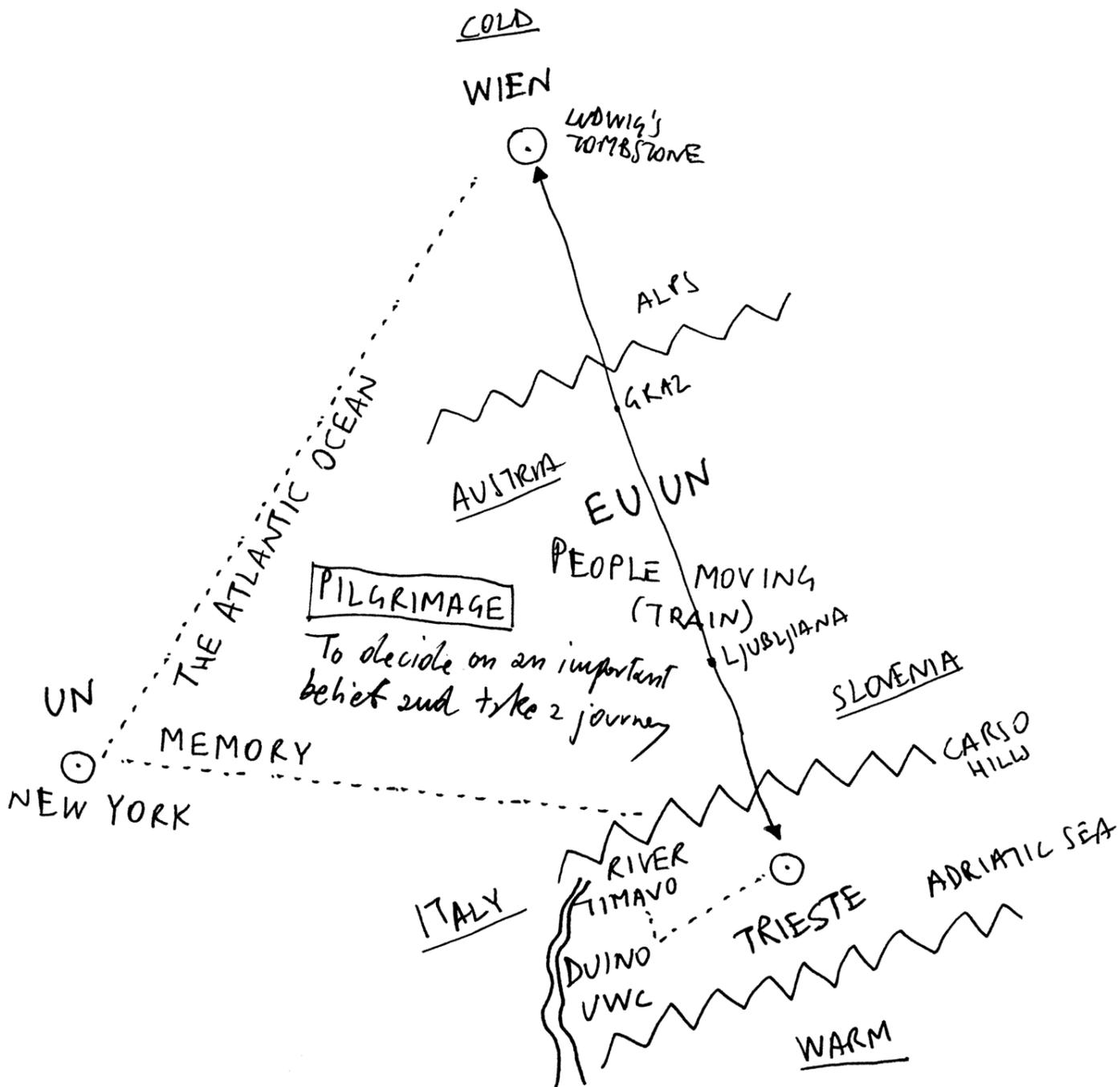
The title of the exhibition is borrowed from the concept introduced by Prussian physicist Rudolf Clausius in 1854, of

entropy. The degree of disorder in a system—or the probability that a closed system can transform into a disorderly one—is not only calculable, but large. Thus, chaos is more likely than order. Consequently, we must always add energy to keep an existing order. Or, to put it simply: in nature, 'disorder' is more common than 'order'.

An important point of departure for Cos's new presentation at Argos is the book *The Order of Time*, by Italian physicist and thinker Carlo Rovelli. Across the centuries, scientists, artists, philosophers, poets and writers have expressed their amazement at the mystery of time in countless publications, experiments and studies. In his book, Rovelli offers a lively illustration of the fact that our thinking about time has undergone radical transformations, and shows how the fundamental laws that describe our world (such as the general theory of relativity and quantum mechanics) disregard the directionality of time.

Rovelli also makes clear that, in different places, time passes/shifts at different rates and that the concept of the present evaporates in the face of the concept of the vast universe. He argues that the past and the future differ less from each other than we usually assume. Time can be both positive and negative (the so-called T-symmetry); what's more, at the quantum scale of elementary particles, there's no time at all, i.e. there's no such thing as past, present and future. In his conclusions, Rovelli suggests that time might simply be a weird distortion or a limit of human consciousness.

Then again, the laws of thermodynamics and entropy dictate that, at a macroscopic level, time is unidirectional—the so-called arrow of time. An ice cube



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impressions. It's her person and her memories that emerge from the apparently random associations and constitute the driving force of the work. André Breton and the surrealists called this principle *le hasard objectif*: an analogue logic of things in which chance conclusions are predetermined at the psychological level by our subconscious.

The heart of *The Measure of Disorder*—the double projection—is devoid of any comments in the form of a text or voice-over. The installation hands the initiative over to the public: Cos lets the images, music and sound produce an emotional impact. But we also find factual information at the exhibition: the texts projected on the walls—in the form of credits—catalogue the places Cos selected for her film.

Cos gives the piece a poppy, light-hearted tone. Though her manipulations of image and sound are somewhat reminiscent of a music video, and her editing is based on techniques often used in feature films, what she achieves with these means is an (almost wordless!) idiosyncratic result.

It's important to emphasize that image and sound are of equal importance in this film. As with her images, Cos minutely sculpts the sound, turning it into a sonorous language that not only appeals to the emotions, but also provides content and commentary.

The sound fragments are taken from Cos's *The Archive of Loops*. Since 2017, Cos has been archiving sounds that she creates during short music improvisations, lasting anywhere from ten to forty minutes, that she performs with a certain regularity. She compares these improvisations—in which she uses her voice, percussion instruments, a harmonica, a guitar, effects and looping machines—to sketches. Cos's use of sound in *The Measure of Disorder* is likewise informed by research she did during her residency at Q-O2 in April, where she experimented playing sounds forwards and backwards, mimicking a technique also used for film images.

The images of *The Measure of Disorder* were first edited separately, that is, without sound, as if she were making a silent film. Only later did Cos create the sounds that were subsequently integrated into the film. Indeed, only a few of the sound sequences were composed to the rhythm of the film: the most appropriate fragments came completely unplanned. (Cos experienced this as 'more than a simple coincidence'—something Jung refers to as *synchronicity*.) Although the audio channel is more than a soundtrack, it also functions as one. While the film runs, there is also another, subdued audio element: the various sounds of trains. Some, although hardly audible, lend *The Measure of Disorder* a particular flow and create a continuous tension.

In the film, shots of escalators and fountains in the Trump Tower fade into footage Cos filmed at a holy site near Duino. In the San Giovanni Church in Tuba, she shows the water from the Timavo River that flows there over an ancient Christian mosaic. The next sequence features images of the Palmenhaus in Vienna, an eighteen-meter high greenhouse built towards the end of the nineteenth century. These images alternate with impressions of the New York Botanical Garden in the Bronx. The audio channel suddenly features Tony Bennett singing 'This funny world can laugh / at the dreams you're alive for', and, a little later, 'This funny world is making fun of you'. At first, Bennett seems an intruder: he breaks the strained but somewhat serene atmosphere. That said, he's also an example of the nostalgic, sugary music that incessantly sounds through the Trump Tower. Moreover, the tragedy of the lyrics echoes the unfortunate end of Boltzmann's life.

Although Cos initially came to this cut in an intuitive and associative manner, her memory seemed to function along less coincidental lines. Indeed, these places represent forms of power from various eras: the present American government, the Roman Empire and the Austro-Hungarian Monarchy (1867-1918, i.e., during Boltzmann's lifetime).

Though *The Measure of Disorder* feels like a hypnotic trip, the work teems with images of locations, monuments and buildings that refer to historic events. In addition to the places already mentioned, Cos also filmed, for example, the Hochstrahlbrunnen in Vienna, a fountain constructed in 1873 to celebrate the first water conduit to bring water from the Styria Alps to the capital, an event that inaugurated a time of increased hygiene, wellbeing and health. Near Trieste, in Opicina, an obelisk made out stone cut from the Karst Plateau bears witness to the construction of the first road to Vienna under emperor Ferdinand I. (During the Second World War, bunkers were built underneath it.) A statue of Boltzmann was sculpted from the same stone, which is abundantly present in the region. His tombstone on the Zentralfriedhof in Vienna bears the inscription of his famous entropy formula:  $S = k \log W$ .

In her earlier work, Cos explores the present-day situation in Europe. For these works she adopted techniques and took stances that return in this new work. In 2016, for example, she shot the film *Astrology of a Friday* in the General Assembly Room of the Province of Limburg's Government Building, in the Netherlands, where, on 7 February 1992, the famous Maastricht Treaty was signed. In the work, we hear to the Preamble to the Treaty while Cos films the star-shaped ceiling from

a perpendicular frog perspective, spinning around with the camera, both clockwise and anticlockwise. Supported by a mesmerizing voice and psychedelic music, the work portrays the tension between something that could be a memory of the past and something that holds a promise of the future. An even earlier work, *Eight Chapters in Four Movements* (2015), was shot on London Bridge, where every day thousand of commuters cross from North to South. In this video performance, the artist walks to the rhythm of the commuters—exactly 113 beats per minute—assisted by a ticking metronome. With the camera on her chest filming everything, she walks back and forth with the flow of people in four repetitive movements. *REEL to REEL* (2017) is filmed in the Brussels miniature park Mini-Europe; that is the first work for which she used sounds from *The Archive of Loops*. In *UU* (2017), the seats of the United Nations in New York and those of the European Union in Brussels are mirrored in the dance of everyday life.

*The Measure of Disorder* also relates to Europe and confronts the history of the old continent with contemporary America. In addition to the images from Trump Tower that she juxtaposes to historic locations in Europe, Cos also reaches for a number of metaphors that are hard to misinterpret. The Atlantic Ocean—seen as horizon, as overhead images shot from a plane, as looping currents, in images by Cos herself and from educational videos from the Natural History Museum in Vienna—is, for example, an element that functions as a force that both links and divides Europe and America.

A recurrent element in the film is the alternation of real images with simulacra and scale models. Images Cos filmed on her train journey on the Semmering railway, for example, alternate with material generated by Google Earth 3D and with shots from the Semmering train model in the Südbahn Museum in Mürzzuschlag. The train—in Boltzmann's lifetime a revolutionary means of transport that considerably accelerated economic and intellectual exchange—is also featured in the work in the shape of a steam locomotive. We see details of the mechanical parts of the Steinbrück, Austria's oldest preserved steam locomotive, today on display at the Vienna Technical Museum. The audio channel features Tony Bennett's voice, craving, stuttering, shaking, until it almost acquires a sexually loaded dimension.

There's no such thing as past, present and future. *The Measure of Disorder* is also without a true beginning, middle and end. In fact, in the installation, the film runs in a perfect loop, going forwards on one screen and backwards on the other one; the sound, for its part, is played in one direction only: forwards. After the

first turning point, marked by Trump Tower, the film confronts us with a second one that involves Cos's most personal footage. We see the hands of two people playing cards: Teresa Cos and her grandfather. This footage is not only intimate, it is also full of symbolic overtones. In this way, the images refer, yet again, to duplicity, to the concept of time, to order and to the (re)creation of chaos. In these ways, *The Measure of Disorder* gets more and more under our skin, and more and more questions arise about the functioning of things that are very different, and yet inextricably linked, such as cause and effect, economics and politics, the reversibility and irreversibility of events.

(Ive Stevenheydens)

A special event is scheduled November 7th 2018. Then the artist will perform during a Nocturne a session of *The Archive of Loops*, featuring a live spatialisation by Caroline Profanter.

WEDNESDAY 07.11.2018  
18:00-21:00  
(free entrance)

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