

## Jimena Canales RECTO VERSO

Front and back. Forwards and backwards. *The Magic Mountain* is set in the years before the Great War. It is a *Zeitroman*, in the sense that it is a novel (*Roman*) of the times (*Zeit*), as much as it is a *Zeitroman*, a novel (*Roman*) about time (*Zeit*). The narrator explains how "a term like 'time novel' may well take on an oddly dreamlike double meaning." *The Magic Mountain* is a historical novel in four senses: it is about a period of history, it made history, it is about history, and it emerged in history.

When the famed anthropologist Claude Lévi-Strauss read the philosopher Jean-Paul Sartre's *Critique of Dialectical Reason* (1960), he was irritated to see the existentialist thinker confuse four essential things throughout the book:

- 1 unconscious history
- 2 the history of the historians
- 3 the philosophical interpretation of the first
- 4 the philosophical interpretation of the second

Sartre used one term—history—for all of the above. In the final chapter of *La Pensée Sauvage*, Lévi-Strauss stated his discomfort clearly:

"This paralogism is already apparent in his manner of invoking history, for one is hard put to it to see whether it is meant to be the history men make unconsciously, history of men consciously made by historians, the philosopher's interpretation of the history of men or his interpretation of the history of historians."

There are men who make history, men who write history, men who belong to history, and men who think about history. Are they separate? Are they even men? It depends. For the existential philosopher the differences may not matter as much as they would for an anthropologist.

Who makes history by writing it? "To answer the question 'Who?' as Hannah Arendt has so forcefully put it, is to tell the story of a life," the philosopher Paul Ricoeur, author of *Time and Narrative*, reminds us. History makes men who in turn make history; men make history which in turn makes men. "The subject then appears both as a reader and the writer of its own life, as Proust would have it," concludes Ricoeur.

Writers and readers, thinkers and doers collide, merge, and separate. They live among documents, such as identity cards, that permit them to understand individuality as identifiablity, or birth records and death certificates, that lead them to think of life in terms of being alive. Writing history, being in history, thinking about history, and making history are different attitudes towards the past, present, and future.

Jimena Canales

## TIME SHAPE

Do clocks measure time? "That most authoritative of machines, the clock, has no purpose but to measure something, and that thing is time. In fact you can define time that way: time is what clocks measure," writes James Gleick in "Time Regained!" (*The New York Review of Books*, June 6, 2013). Do clocks solve the problem of time? They do not: "Unfortunately," he concludes, "that's a circular definition, if clocks are what measure time."

When Hans Castorp, the main character in Thomas Mann's *Magic Mountain* (1924), meets his cousin Joachim Ziemssen at the International Sanatorium Berghof in Davos, he thinks that time will most likely pass as quickly for him as for the other residents taking refuge from the daily grind of the "flatlands" below.

"But I would think time ought to pass quickly for you all," Hans Castorp suggested to his cousin.

The response is not what he expected:

"Quickly and slowly, just as you like," Joachim replied. "What I'm trying to say is that it doesn't really pass at all, there is no time as such. . . ."

The French mathematician and physicist Henri Poincaré studied time's complications in his well-known essay "The Measure of Time" (*Revue de métaphysique et de morale*, 1898). He was hardly the first to note some of the paradoxes. One key insight he developed centered on an inescapable circularity in all of our measurements of time. Take one instant, and try to compare it against another—the moment you attempt it, the first instant has just gone by. Try again: same thing happens. Try again: same thing. Try again: same.

Poincaré noticed that, in practice, scientists determined time by making an "implicit" supposition that "could never be verified directly

by experiment." Scientists measured time "by *supposing* that light has a constant velocity, and in particular that its velocity is the same in all directions." If scientists did not assume that certain velocities were absolutely constant, chronology would fail and the timeline on which events were organized would bend and warp. Something "resembling the principle of sufficient reason" demanded that it be so.

Poincaré was widely known for espousing a philosophical stance known as conventionalism.

"We therefore choose the rules, not because they are true, but because they are the most convenient, and we may recapitulate them as follows: 'The simultaneity of two events, or the order of their succession, the equality of two durations, are to be defined so that the form of our natural laws may be as simple as possible. In other words, all these rules, all these definitions are only the fruit of an unconscious opportunism.' "

Hans Castorp, Thomas Mann's hero up in the mountains of Switzerland, seemed to agree:

"We say time passes. Fine, let it pass for all I care. But in order to measure it ... No, wait! In order for it to be measureable, it would have to flow evenly, but where is it written that it does that? It doesn't do that for our conscious minds, we simply assume it does, just for the sake of convenience. And so all our measurements are merely conventions, if you please."

And so Hans responded to his cousin Joachim, who asked him politely to please stop theorizing about time.

Hans Castorp is a fictional character created alongside a story of time. The narrator describes him at the same time as he describes the "laws of narrative" in the narrative, explaining how two distinct temporalities mark the boundary between fiction and reality.

"Narrative, however, has two kinds of time: first, its own real time, which like musical time defines its movement and presentation; and second, the time of its contents, which has a perspective quality that can vary widely, from a story in which the narrative's imaginary time is almost, or indeed totally coincident with its musical time, to one in which it stretches over light-years."

The time of the narrative (of its presentation) need not match with the time of the narrative (of its contents).

Time on drugs. In Confessions of an English Opium-Eater (1821), Thomas De Quincey details the strange effects that opium has on our sense of space and time:

## **BREATH**

"The sense of space, and in the end the sense of time, were both powerfully affected. Buildings, landscapes, &c., were exhibited in proportions so vast as the bodily eye is not fitted to receive. Space swelled, and was amplified to an extent of unutterable infinity. This, however, did not disturb me so much as the vast expansion of time; I sometimes seemed to have lived for 70 or 100 years in one night—nay, sometimes had feelings representative of a millennium passed in that time, or, however, of a duration far beyond the limits of any human experience."

A novel works much like a drug in how it warps space and time for the reader. In The Magic Mountain, the narrator explains how the Enlightenment-era art form which Thomas Mann was attempting to resurrect produced hallucinatory effects on its readers similar to those of drugs. He recalls the diaries of opium eaters, such as De Quincey's:

"The diaries of opium-eaters record how, during the brief period of ecstasy, the drugged person's dreams have a temporal scope of ten, thirty, sometimes sixty years or even surpass all limits of man's ability to experience time. . . . "

One could tell a very long story in a short time, or a very short story in a very long time. Narratives expand and shrink time in a way comparable to these " anomalous experiences."

Who studied the time of dreams? Alfred Maury, a prolific scholar who would influence Sigmund Freud, wrote Le Sommeil et les rêves in 1865. He cited with admiration the Scottish philosopher Dugald Stewart, who had "shown how the speed of our thoughts contributes, during sleep, to erase in us the notion of time in the first volume of his Elements of the Philosophy of the Human Mind (1854)."

The French philosopher Henri Bergson followed Maury's work carefully, scrutinizing it for his own study *Le Rêve* (1901). Our mind, when awake, functions like the regulator that counterbalances a clock's spring to keep it from running out of control:

"Our attention to this exterior and social life is the great regulator of the succession of our internal states. It is like the regulator of a clock, that slows down and divides in sections the indivisible, almost instantaneous, tension of the spring."

When he reedited his text on dreams for L'Énergie spirituelle (1919), Bergson stressed again the role of a clock's pendulum, which can regulate the otherwise maddening speed of dreams.

"In a clock, the pendulum cuts in sections and spreads throughout many days the force of the spring which would be almost instantaneous if freed," he explains. But now he has a better example than just a clock: a cinematographic machine. Like a broken clock, a cinematographic projector can also run wild: "The images can precipitate themselves, if one wants, with vertiginous speed, as those of a cinematographic film that does not regulate its unwinding."

Bergson continued to think about how "a dream covers in a few seconds that which would take many days."

In the postwar era writers and literary theorists started to become less interested in the time of clocks and more interested in the time of novels, dreams, and films. In the 1970s the writer and theorist Mikhail Bakhtin dusted off an old essay written in the 1930s, known today as "Forms of Time and of the Chronotope in the Novel." When he wrote it, he had valiantly tried to make a science out of "the process of assimilating real historical time and space in literature." His investigations showed how art operated somewhere between the object and the world outside of it, through dialogism and heteroglossia. The time was now ripe to realize that what one says is much less important than how it is said and when.

## Biographies

JIMENA CANALES has written numerous articles about science, technology and art. She is the author of *The Physicist and the Philosopher: Einstein, Bergson and the Debate That Changed Our Understanding of Time* and *A Tenth of a Second: A History.* She holds the Thomas M. Siebel Chair in the History of Science at the University of Illinois. She was previously an Associate Professor at Harvard University and a senior fellow at the IKKM in Weimar, Germany.

PEDRO DE NIEMEYER CESARINO is Professor of Anthropology at the University of São Paulo (USP). He is author of Oniska – poética do xamanismo na Amazônia (Perspectiva, 2011) and Quando a Terradeixou de falar – cantos da mitologia marubo (Ed. 34, 2013), and has published numerous articles on translation, poetics, ethnology, and the anthropology of art.

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BENJAMIN MEYER-KRAHMER is a visiting professor in the theory department of the Academy of Visual Arts, Leipzig, Germany. His research topics are representation, epistemology of scientific and non-scientific research, graphic practices, the curatorial. He publishes in the field of contemporary art, art theory, and philosophy.

ANA TEIXEIRA PINTO is a writer from Lisbon, living in Berlin. She is currently a lecturer at the UdK (Universität der Künste) Berlin and contributes regularly to publications such as e-flux Journal, Art-Agenda, Mousse, Frieze/de, Domus, Inaesthetics, The Manifesta Journal, and Texte zur Kunst.

ELFI TURPIN is a curator. She has been director of Centre Rhénan d'Art Contemporain – CRAC Alsace, Altkirch, France, since December 2012, where she has curated a variety of exhibitions, including Daniel Steegmann Mangrané, *Animal que no existeix* (2014). She was curator-in-residence at Capacete, in Rio de Janeiro, in 2008 and 2010.

FILIPA RAMOS is a writer and editor based in London. She's Editor in Chief of art-agenda and Co-curator of Vdrome.

RIVET is a curatorial office founded in 2010 by Sarah Demeuse and Manuela Moscoso. They develop longer-term projects and conversations with artists that can take the shape of exhibitions and publications, but also of workshops, reading groups, or conference calls. They have edited *Thinking about it* (Archive Books, 2014), and a series of publications made with Project Projects (A conversation about a talk that never happened, Looking for terms that aren't loaded, Manual). They reside at www.rivet-rivet.net.

STUDIO MANUEL RAEDER is an interdisciplinary design studio based in Berlin and Mexico City, founded by Manuel Raeder in 2003. The works have a wide range of formats exploring the boundaries between exhibitions, ephemera, books, type design, editing, publishing, to furniture design, approaching them as carriers of information, or experimental devices to document or conceive narratives.

