

> 20 hz, magnetic storm aesthetic

"Making the earth's magnetism perceivable is an acquired skill that was originally developed for navigation purposes. Having to rely on the compass for orientation, seamen have been aware of the instability of the earth's magnetic field for centuries, especially when navigating at high latitudes. Semiconductor's Ruth Jarman and Joe Gerhardt have recently completed 20 HZ, an audiovisual work that provides a striking representation of a magnetic storm occurring in the higher reaches of the Earth's atmosphere. The storm was recorded by the CARISMA magnetometer array, a network of over two dozen stations distributed across Canada which monitor the fluctuations of the earth's magnetic field. The artist duo first translated the data from the array into sound, producing familiar grains and glissandi typical of natural radio phenomena. Incoming solar winds carrying charged particles can be heard as warbling tones and thunderous clusters plunging into a backdrop of atmospheric peintillism. This aural matter was then translated into moving images, visualizing sound waves through the classic analogy of ripples on water, with the difference that the ripples here have sharp jagged ridges suggestive of high electrical charges. If reading a compass gives us information about the orientation of a magnetic field at a single point in space, just like listening gives us information about sound only at the location of our eardrums, visualizing the data from the CARISMA array, Semiconductor present us with a panoramic view on this invisible field, revealing a complex and dynamic landscape. Herman Helmholtz once wrote "The eye has a great advantage over the ear in being able to survey a large extent of surface at the same moment". The scale of the phenomena that is made perceivable in this case extends in space to a distance several times the earth's radius. But it's not scientific rigor that makes the work of Semiconductor stand out. Exploring the scientific domain from an outsider's perspective, they conserve a broad degree of freedom, following a poetic approach that keeps their work autonomous from any form of scientism.



