Stoniness

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Data technologies consist of minerals, of metals, and of other natural materials. Their origin is thus the stone and they are therefore fundamentally geological. We process stones and put them under electricity in order to comprehend the world and rock-hard realities around us. Stones that calculate are at the centre of the problem-solving strategies of the complex issues of the present. With the term "stones that calculate," we mean the assemblage of all data processing devices or infrastructures and their socio- political impact on our automated society. From smartphones, Internet cables to data centres, we look at the material complexity, cycles, and dependencies it takes to provide the enormous data and energy resources needed for our daily Netflix consumption, climate models and algorithmic governance. No need to emphasise here that approximately 5% of all greenhouse gas emissions come from the maintenance of digital technology (Royal Society, 2020).

We propose the category of stoniness to make visible the connections between ecology, power, and information technology. In order to structure our extended notion of stones, we developed a research archive of resources that maps academic and artistic perspectives that reflect digital conditions within materialist discourses (https://stones.computer). Under the label of post-digital materiality, we combine historical classifications, critical analyses, and speculative interventions from both established voices as well as young researchers. We examine the research field on the basis of three material dimensions. We start with the actual material conditions of digital infrastructures – asking what is a stone? We then scale up to questions of power and geopolitics of the digital – asking where is the stone? In the last step, we

look at moments of corporeality in the seemingly dematerialised digital space – asking who holds the stone?

Material of the digital

The focus here is particularly on the material consequences of digitisation. In contrast to supposed dematerialisation narratives (cyberspace, cloud, or wireless), we are interested in the extended cycles of digital ecologies. We follow neomaterialistic media theories that can be seen, in a rough summary, as the intensive excavation of where (and when) the materiality of media actually is (Parikka, 2015; Peters, 2015; Jue, 2020). In the sense of opening the black box, this focus looks at the resources needed to keep a planetary-scale computation going. In addition to new spatial orders, altered temporal relations become apparent. By combining these enhanced ideas of scale, we are also dealing with different notions of the Earth itself: like the globe, the terrestrial and the planetary (Likavčan, 2019).

Power and geopolitics within the digital

The second pillar focuses specifically on geopolitical arrangements in the post-digital space. The term "post" here signifies going beyond digital mystifications and naturalisations. Hence, the often-hidden infrastructures of digital systems are revealed and rearranged in the overall complex. We are interested in new emerging data landscapes as well as legal and ethical perspectives and issues relating to data, with useful suggestions coming from the discussions around the Technosphere (Amoore, 2020). We draw upon geopolitical theories that are capable of framing the complexities of planetary-scale computation, such as Benjamin Brattons "The Stack" (Bratton, 2016).

Bodies of the digital

The third pillar combines approaches concerning the conditions of production and consumption rendered by platforms and services of our daily usage. The focus is on the concept of labour and exploitation of the human body. The discussion is nourished, for example, by notions of embodiment and feminist theories (Plant, 1997). The complex relationship of dependence between human self-perception and

technical devices, in the sense of techno-intimacy or moments of identification, are also examined (Picard, 1997).

Overall, the notion of stoniness we are proposing not only makes visible the material entanglements of our contemporary human condition, but it also actively helps to position stones as main tool to navigate human thinking. It is through the electrification of stones that we have been able to better understand our history and the ecological complexities surrounding us. Stones shaped our perception as much as we shaped stones (Colomina and Wigley, 2017). Now it is up to us to calibrate our view on them.

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