

Air quality indexes and their infrapolitics behind

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October 2012

The government of the air's measurement and analysis started shifting from the XVIIth century from civil associations to local authorities, being the XXth century when it became a national governmental duty that expanded thanks to the development of technological improvements in measuring devices. In 1912 an integrated system of instrument-based air pollution surveillance began in Britain, at the same time that the Committee for the Investigation of Atmospheric Pollution (CIAP) searched to systematize air pollution observation in the same way as demography or meteorology were doing, in the attempt to provide new analytical and political standards. They "normalized" the air and its measurement devices, but the air was still a scientific and governmental realm until 1997, when the Aarhus Convention proposed that government-produced data needed to be accessible to citizens.

This moment was capital in the democratization of the air's knowledge, helped by the development of digital technologies and the expansion of the World Wide Web. It is in this time when air quality indexes became the tool that translated the numerical data of the sensor's measurements or "scientific" data into ranges that informed about the peligrosity of the numerical data for the health of citizens. Indexes became then the mediators between data and citizenship, and their implementation and visualization became tasks for the authorities.

We will look at the history of the air quality indexes, with Madrid as the main case study, in the attempt to reveal what exactly they regulate and who does regulate them. When comparing Spanish autonomies' indexes the differences that lay between them emerge. Why is information to citizens different within very little spatial variations? Who does decide and with which criteria the precise density from which an episode is "normal" or "dangerous"? How are the limits defined? How is then the "norm" constituted and settled?

The materiality of the indexes is explored as the way in which they become public and enact their power. From the colour selected to the text that categorizes them fine subtleties in language and tone define their differences. When examining web pages around the world an even wider range of variations appear, which try to pursue different communication objectives, from simplicity to emotional or more perceptual interaction with the viewer. The differences within indexes do also reveal the overlaps between local and global politics in the regulation of the air, and how they are used as icons of national identities or institutional propaganda.

But even though they are meant to be objects of information, they are in fact bio(tanato)political instruments that govern chances of life and death. In the attempt to visualize the enormous implications in the health of society and environmental policies of the definition of some ranges within data measurements, it will be pointed out that indexes far from being scientific are instead highly politic. What are then the infrapolitics behind them?

A colour range from red to green regulates indirectly population's health, and divides society on what Mark Whitehead has called the "sensitive bodies" through the physical affections of citizens, deriving in bandwidths of economic security. The last part of the paper attempts to identify which are the "sensitive bodies" that are affected by air quality. By analyzing a range of epidemiological studies realized worldwide two main assumptions can be tentatively questioned:

The first one is that there exists something such as an "aerial normal body", which is immune to the density variations of different components. In USA or the UK this normal (or healthy) body becomes an equivalent human measure to the indexes. But analysing the physical impact of air pollution in human health from a feminist perspective reveals that that the normal body does not exist, and that aerial sensitivities are physical variations that happen at microscopic levels in all our bodies. So it could be said that we are all at a moment in our life sensitive bodies, situation that may be increased according to exposure. The body becomes then the product of history, social change and ongoing interactions between humans, their environment and the context in which they live. And a new question arises: is this aerosensitivity a form of functional diversity?

The second assumption is that there may be some identities such as gender, class or race that increase the aerial sensitivity (modifiers). But the inconsistency of the results among the different studies and the ambiguity of the results in most of them permit us to question the departing identities of the studies. This act of questioning is relevant because the norm not only regulates but also builds up reality. Precisely biomedical studies results can be generalized to give rise to public health policy, which in this case would be perpetuating the previous identities and eventually produce situations of exclusion, inequality or oppression, which would happen, as Dean Spade proposes, "outside of individualizing discrimination frameworks, and instead through a biopolitical understanding of the management of populations and the distribution of life chances".

To conclude it is proposed how the definition of these ranges could be one of the strongest "places" of political action in a citizen's independent management of the air.