

THE METABOLISM OF THE INTERNATIONAL : NATURE, ENVIRONMENT AND WORLD ORDER.

The (over-) ambition of this presentation is to speculate on the possibilities for a non-'green' IR theory which takes seriously global environmental change in general and global environmental history in particular. It seeks to float the possibility of not only theorising IR differently but also of the need to re-establish IR theory, and other social theorising, in a different science and philosophy. Whilst I cannot decide whether Foucault is a Cassandra or a Siren, I remain committed to some form of foundationalism.

Notwithstanding over two decades of continuing attempts to bring issues of global environmental change into the heart of the study of international relations yet the International Relations of Global Environmental Change remains marginal to IR in general and IR theory in particular. Correspondingly, notwithstanding the increasing alarm expressed across the world of environmental degradation, most particularly in reference to climate change, the global environmental problematic rarely impinges in the modification or evolution of IR thinking (or policy). In many respects, the environmental problematic shares a similar fate to that of the gender problematic in IR : It is treated as a fancy, a marginal and specialist concern which one can take or leave according to taste.

This paper seeks to identify and begin to elaborate, *contra* Realist common sense and *contra* positivist and post-positivist IR, a materialist approach to IR in which an environmental history of the world can be seen as the *sine qua non* of international history. The strengths of a critical realist approach (quite unrelated to IR Realism) to science and explanation, provides the necessary ontological and epistemological methods whereby natural history and natural sciences may be integrated into an explanation of global social-political order. Specifically, one can see here how a materialist conception of nature can be integrated into a materialist conception of history.

Rejecting the very idea of a discrete "green IR", the paper proceeds by first making remarks on what we ordinarily expect of something that passes as a scientific theory. This is followed by a general statement on the approach of critical or transcendental realism regarding the conduct of scientific reasoning in general and the meaning of the possibility of naturalism in particular. In so introducing critical realism with a brief elaboration of philosophical realism and materialism together with a claim for the unity of science, third, the key concept of *metabolism* is introduced. Metabolism, as signalled by Marx's work on Liebig and soil fertility, though most thoroughly elaborated by Foster, serves as both an example of a critical realist methodology and of the possibility of an anti-teleological and anti-determinist, non-fragmentary science. Fourth, a number of historical instances of the emergence of an international, or global, social-ecological metabolism will be highlighted to demonstrate the explanatory power of a materialist concept of metabolism, before tying this back, finally, to the relationship between the *metabola* that inform changing world orders. In order to at least indicate the manner and direction in which this ambition might be realised, the illustrations include the imperial guano trade, global oil economy (hydrocarbon civilisation), global ocean exploitation (fisheries), dam building (Anatolia), transatlantic slave trade, global climate change, all of which in turn are drawn from a larger piece of work.

In summary, the arc of ambition can be described as follows : That of identifying the purpose and deficiencies of IR theory; then to indicate the requirement for a radically different philosophical method; allowing us to elaborate, through an alternate philosophical method, a distinct science in which *metabolism* constitutes a key theoretical and conceptual reality; followed by a demonstration, through historical exemplars, the scientific worth of that key concept; and thus, newly armed, return to the struggle to better explain International Relations, to thereby begin to elaborate a critical explanation of global order. Constraints of time and anticipated interest will require comparatively more attention to be paid to the later moments of this arc.