Omnis Fibra Ex Fibra: Fibre ÖEconomies in Bonnet’s and Diderot’s Models of Organic Order

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Abstract
In a long-term transformation, that begins in Antiquity but takes a crucial turn in the Renaissance anatomicies, the “fibre” becomes from around 1750 the operative building block and at the same time the first unifying principle of function-structure-complexes of organic bodies. It occupies the role that the cell takes up in the cell economies of the second third of the nineteenth century. In this paper, I will first discuss some key notions, technical analogies, and images that are related to “fibre”-concepts from Andreas Vesalius to Albrecht von Haller and then focus on Charles Bonnet’s and Denis Diderot’s fibre economies. In Bonnet’s and Diderot’s fibre economies, the self-active, regulating properties of fibre-agents and their material structures, that reach from fibre bundles, tissues and membranes to apparati of organs, are united within the concrete whole of individual organized “systems” or “networks.”

Keywords
fibre, system, network, sensation, sensibility, organic, body, organization, economy

All created substances are organized or without organization. The first ones are composed of fibres, possess live, and are called animals or plants. The last ones are massive, have only particles that are put against each other, and are inert.
– Antoine Le Camus, Médecine de l’esprit, 1769

After Giorgio Baglivi’s pathology of fibre types and before Xavier Bichat’s catalogue of tissue types, Bonnet’s and Diderot’s main

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objective is to explain the operative mode and the development of the entire living body through its fibre œconomy. In their anatomical and physiological writings, nearly every organic part is made of fibres and operates through fibres. These fibres can be hard or soft, straight or bent, isolated or interwoven, and hollow or solid; they form tissues, membranes, organs, vessels, apparati of organs, and entire living beings; and they can move themselves, sense, regulate, regenerate, contract into a germ, dilate into web-like structures, and transport data through vibrations or liquids.

From around 1750, the fibre thus becomes, through its passive and active properties, the main operative building block and at the same time the first unifying principle of function-structure-complexes of organic bodies.\(^1\) It occupies the role that the cell takes up in the cell economies of the second third of the nineteenth century.\(^2\) The bodies of plants, animals and humans are all constituted through fibres,\(^3\) and their differences mainly rely on different fibre

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3) Fibres can be themselves composed of smaller organic units, as Buffon’s organic molecules.