

Introduction

Five Essays on Computational Design, Mathematics and Production

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"The two major rational methods of agreement in modern times, namely the language of science in mathematics and the language of money in accounting, both originated in the Renaissance period and were both born from the exclusive and unequivocal concentration of the spirit on the area of their intrinsic values and from an esotericism of expression whose rigour could almost be qualified as ascetic. However, such a spiritual direction does not have much in common with the monastic asceticism of Catholicism, since unlike Catholicism it is not a means to an end, it does not want to be an ecstatic "auxiliary", it comes from the unequivocal clarity of action, which should be accepted as the only unequivocal language, and the only one to which this spirit will consent to submit itself".

Hermann Broch, *The Sleepwalkers*, 1931.

The five essays brought together here are very different. The first (*Notes on Algorithmic Design*) relates to a collaborative design work and shows the nature of the exchanges to which it led. Two of them were written for magazines or revues (*Notes on Computational Architecture*, *N Extensions to Extension of the Grid*), two for public presentations (*A Few Precisions on Architecture &*

Mathematics, Some Geometries). There is of course an artificial side to bringing these essays together. However, each was the sign of an interest for common contemporary questions, the relevance of which I believe no longer needs to be demonstrated, whether it be the use of mathematics and of the algorithmic in architectural design or the implications of these same disciplines in production in the wider sense. Indeed, although these different essays are concerned with diverse sciences and techniques, it is not for themselves but for the relations that they maintain with that which they lead to. My interest in these different texts was not to deal with the possibilities provided, for example, by mathematics and computations (through algorithmic) in the field of architecture, but to deal with the "abstract" sources of a set of profound modifications (economic, social, political) which are today in effect on a global scale. Thus I was not eager to deal with the diverse possibilities provided by such and such a new technology – especially since we talk of new technologies precisely because they offer new possibilities, a fact that leads to no less than a tautology – but, to echo the words of Emerson, to deal with certain aspects of the real History from the perspective of [...] *the true romance which the world exists to realize, [...] the transformation of genius into practical power*" (Emerson, in "Experience"). That is, dealing with mathematics and information

technology from the perspective of their concrete technological consequences and dealing with technology through its causes. If I come back to former works such as *The Integral Capitalism* I published a year ago, I could thus recognise that that which constitutes these five essays is simply a (still) partial attempt to define what makes this capitalism possible (I mean a global economy, including all of the social practices that go along). This work is a sort of extension of *The Integral Capitalism*, or rather it is its machinic, technological and sometimes epistemological side.

