

«INDÚSTRIA E VALORIZAÇÃO DO CAPITAL.  
UMA ANÁLISE GEOGRÁFICA»  
BY JOAO FERRÃO. AN ASSESSMENT

In theoretical terms FERRÃO's thesis <sup>(1)</sup> is based upon one of the more recent approaches to geographical explanation. The main theoretical concept lying behind the work is that understanding of the process of capital accumulation is the key to explanation of patterns of economic, social, political and ideological change. As all of these elements of change have important spatial dimensions, the study of capital accumulation becomes the key to explanation of geographical change. Geographical change is not, however, reduced to a simple discussion of changing patterns of industrial location in a linear and mono-causal manner; changing locational patterns are treated as both a consequence of and a cause of development of more general socio-economic *complexes*, including the 'complex' of the industrial sector.

The thesis has three main parts. The *first part* consists of a well documented review of modern approaches to the analysis of capital

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accumulation and regional change. Also, in this part the basic theoretical framework is developed, centred around the concepts of types of extra surplus value. The thesis demonstrates a clear and advanced understanding of the complexities of the approach.

The *second part* consists of an empirical analysis of the development of Portuguese industry from 1926 to the present day. The theoretical framework developed in the first section is applied rigorously, but with regard for the historical and spatial specificity of different aspects of Portuguese industrial development. Secondary data sources are utilised throughout, and the author demonstrates great ingenuity in assembling data for the last 15 years, a period for which data is very scarce. The author also succeeds in documenting the presence of a dual regime of profit and production in the Portuguese space-economy, related in turn to the model of accumulation applied.

The *third and final part* of the thesis presents the results of an empirical analysis of the industrial sector in four municipalities: Oliveira de Azemeis, Viseu, Benavente and Salvaterra de Magos. Despite the lack of time-series data, the concepts developed earlier in the thesis are operationalized in a constructive manner and clear differences between the different municipalities are related to the model of capital accumulation. The strength of this part of the thesis lies, however, in the analysis of the specificity of a multiplicity of situations within a general theoretical framework. Sources of finance for initial investment, regional and sectorial qualification structures, technology and organisational factors are all related, in their differences, both to a theoretical framework *and* to regionally specific development patterns.

In general terms, the thesis is an original contribution to our understanding of regional social and economic development processes and patterns.

The first main element of originality is development of a dialectical view of the relationship between the capital accumulation process and regional change. This is illustrated in figure 1. The process of capital accumulation involves changes in the organisation of production and technological change. These changes in the *production process* themselves render some regions and locations more attractive (and some less attractive) for production. However, changes in the production process are themselves the cause of *regional* changes, for example, in the qualification structure and thereby the class (and income) structure of the labour force. These changes arising from the production process interact with the existing regional supply of labour and thus transform the regional labour market. These transformations of the regional labour market have widespread repercussions, in economic, social, ideological and political terms. These transformations in turn provide an incitement to develop new technology, or to relocate production in other regions because regional transformations have rendered these (newer) locations less profitable. Such interactions between regionally specific socio-economic configurations and changes in the production process also occur during industrial decline, producing patterns of job loss which must be explained

with reference both to general theoretical constructs and specific spatio-temporal situations (see for example MASSEY & MEEGAN, 1982). Thus regional development is explained as a process where capital accumulation, economically, physically and technologically, interacts with regional socio-economic structures both to produce new forms of capital accumulation and new (regional) socio-economic structures. This process does not, however, occur on an isotropic surface, but is embedded in past 'layers' of such interactions. The approach has been developed by a number of authors, including MASSEY (1983, 1984). FERRÃO's contribution

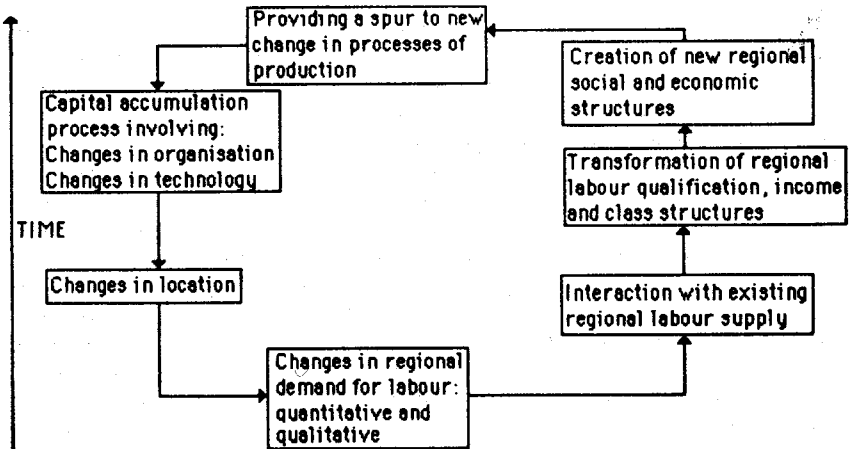


Figure 1.

falls within this general approach; there are few studies which combine such specificity of detail with such generality of approach over so long a time span. FERRÃO has succeeded in catching the essence of this of dialectical change, which requires both theoretical and empirical insight.

The second element of originality lies in FERRÃO's attempt to address the epistemological/theoretical problem of *structuration* (GIDDENS, 1979). The structuralism of the Althusser school pointed to the important role of social and economic structures in determining the development of society and its constituent parts. One of the basic weaknesses of structuralism is, however, that it is unable to account for the *origins* and *development* of the structures themselves. Structures become frozen and functional in their determinism. GIDDENS' contribution is to pinpoint the need for analysis of the way in which general structures and their constituent parts interact and transform each other in a continuous and interactive process. The development of the constituent parts occurs through action (or practice) of actors living in specific time-space frameworks (THRIFT, 1983). Thus the dynamic interactions of general structures and constituent parts must be understood as a true historical-geographical problem having both a theoretical and empirical content. Identification of processes of *structuration* is one of the key theoretical

and epistemological problems facing social science today, and is closely associated with the growing interest in realist approaches to science (SAYER, 1984). FERRÃO addresses this problem of structuration directly both in his empirical and theoretical analyses. The combination of the two levels of empirical analysis to be found in the thesis mirrors the author's central concern with this problem.

Thirdly, there are few systematic studies of the regional distribution of key economic variables upon which marxist regional analysis is based. It is to FERRÃO's credit that he provides a clear and valuable analysis of the distribution these variables in Portugal and also discusses uncompromisingly the problems raised by the distributions revealed. For example, it appears that the organic composition of capital is distributed regionally in a pattern which does not conform to usual centre-periphery expectations. The regional distribution of these variables is related to the theoretical framework utilised by the author.

Finally, FERRÃO's thesis is an original contribution to understanding the dynamics of industrial development in Portugal in the present century. He has used the limited data available for the period after 1971 in a careful and revealing manner, demonstrating clearly the continuity in the 1970's of a number of lines of development observed before 1970, which are explained by the author in theoretical terms. The explanations presented are, however, not structural-functional in nature. FERRÃO is sensitive to the way in which regional differences, particularly in class structure, simultaneously determine, and are determined by, more general trends of capital accumulation. FERRÃO's analysis also documents the key role of changes in productivity in determining industrial and regional development.

No research is without its weaknesses, and research, whilst solving some problems, typically raises even more problems than it solves.

Perhaps the main weakness of the thesis is its failure to address the problem of transformation of values to prices. All analysis is undertaken at the level of prices rather than values, though the categories employed are value categories. In some places technology could have been treated in greater depth. For example, no distinction is made between process and production technology, which is an important distinction when using a framework of analysis which examines *segmentation* of production processes (PERRONS, 1981). Little analysis is made of segmentation of the process of production in the final empirical section, and methodologically, the analysis in this section could perhaps have been undertaken with a little more rigor. Analysis of the causes of integration and disintegration of processes of production (SCOTT, 1985) would have been in order. The author's earlier interest in unequal exchange and surplus transfer between regions has almost disappeared from the thesis, which is regrettable, especially as MARELLI (1983) has suggested that such value transfers in Italian regions constitute substantial shares of gross regional product.

It also seems strange that the author singles out 'space' for treatment independently of technology, organisation and the labour force,

thereby raising again a now classical philosophical problem in geography, which the thesis contributes to solving, namely the *inseparability* of 'space' from the 'levels' of technology, organisation and the labour force (JENSEN-BUTLER, 1981).

Looking ahead, the theoretical framework presented by FERRÃO can be utilised to analyze and forecast some of the future potential trends in the relationship between technological and spatial development patterns. In terms of technology and organisation of production the following trends would seem to be important for the future:

1. Breakdown of Fordist production techniques and increasing orientation towards production unit philosophy.
2. Increasing awareness of diseconomies of scale.
3. Increasing application of new forms of industrial organisation, based upon use of advanced information technology, including Japanese 'just in time' systems.
4. Changes towards small series production of consumer goods, away from mass production.
5. Increasing awareness in scientific analysis of the role of use values, mirrored in the increasing awareness of the importance of *product innovation*.
6. Declining linkage costs, with improved communication and control systems.
7. Increasing importance of research and development in industrial production.
8. Increasing centralisation of economic control coupled together with decentralisation of production.
9. Breakdown of traditional centre-periphery patterns of regional development (FERRÃO & JENSEN-BUTLER, 1984).

FERRÃO has dealt partially with some of these questions. They would, however, appear to be worthwhile subjects for more systematic research, for which the theoretical framework developed can readily be utilised.

These weaknesses and omissions do not detract seriously from the value of the thesis. The standard of research clearly lies on an international level and represents an important contribution to our understanding of the dynamics of economic and regional development.

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#### UM TRABALHO SOBRE A GEOGRAFIA INDUSTRIAL DO DISTRITO DE AVEIRO

Dobrado o cabo das duas dúzias de dissertações de doutoramento em Geografia apresentadas no nosso país, apareceu pela primeira vez, na Faculdade de Letras de Coimbra, um trabalho deste género dedicado ao estudo do fenómeno industrial <sup>(1)</sup> — a que logo se seguiu outro, desta feita em Lisboa, também referido no presente número de *Finisterra*. Isto reflecte, salvo algumas excepções <sup>(2)</sup>, o interesse tardio dos geógrafos

<sup>(1)</sup> LUCÍLIA DE JESUS CAETANO, *A Indústria no Distrito de Aveiro. Análise Geográfica Relativa ao Eixo Rodoviário Principal (E. N. N.º 1) entre Malaposta e Albergaria-a-Nova*, Faculdade de Letras, Coimbra, 1985 (2 vols., 863 p. com numeração seguida, 97 fig., numerosos quadros estatísticos, abundante bibliografia; o 2.º vol., a partir da p. 623, inclui três anexos, relativos à problemática da classificação das indústrias, à formação do distrito de Aveiro, no âmbito da divisão administrativa em Portugal Continental, e à apresentação da maior parte dos quadros estatísticos, precedida pela dos modelos de inquéritos utilizados no trabalho de campo).

<sup>(2)</sup> É o caso da dissertação de licenciatura, também da autoria de LUCÍLIA DE JESUS CAETANO, *Zona Industrial Loreto-Pedrulha da Cidade*