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More on the reorganization of production and the organization of work

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Abstract

Current debates in the social sciences about changes which have taken place in production, particularly within the last decade, abound in the use of categories such as fordism, post-fordism, industrial districts, agglomerations, company networks, etc., which attempt to reflect, analyze and interpret the roots of these changes and their repercussions for work, social classes, and society.

In many cases these interpretations are theoretically (and politically) oriented, and the debate between different “styles of interpretation” or paradigms is livelier than ever. Moreover, the fields of research and the case studies most commonly mentioned in the literature are frequently subject to contradictory interpretation.

In this way, the characterization of the “new productive organization” varies between the Pindars of the “new age” - as Marx would have labeled them - and those which emphasize their dark but real and structurally complementary side: unskilled, devaluated and unprotected labour in the “hand” companies, in contrast to the “noble” work of the “head” enterprises, which are sometimes found on the other side of a national border.

Fundamentally based on original field research, as well as on an extensive review of the existing literature, in this paper we propose the use of approach criteria as a way of deepening our understanding of the social reality surrounding current systems of production: 1) the reconstruction of the global production process; 2) the location of work centres and networks in a territorial context; and 3) the analysis of social and institutional relations, the “industrial atmosphere”.

The argument concludes with a proposal for a priority research agenda.

0. Preface: Where these reflections come from

It is my hope that some comments on the genesis of this text and its pretensions will serve as an aid to its discussion, and as a result, to its improvement.

My research over the last few years has focused simultaneously on the reorganization of work, particularly in large companies, in a context of rapid technological innovation, and on “the division of labour between firms,” working conditions in small firms, and the emergence of a significant process of reorganization of production. All of these developments have had major “social consequences” and repercussions for trade union action.

From the literature and research available on the subject in Spain and Europe, it appears that some of the explicative keys of these processes are now fairly well understood. As Marx would say, now all we have to do is to begin the task of manufacturing productive and social worlds more worthy of the people who inhabit our planet on the eve of the twenty-first century. In politics, however, “reasonable options” are not always those chosen, to the despair of social scientists. . . and of ordinary citizens.

Seeking a better understanding of the problem, I paid a visit to California in autumn 1992. This, perhaps, reflected my half-held belief that I could feel like a *Persian* or a *Moroccan*, to allude to a Spanish classic, Cadarso; that is, that a greater cultural distance would help to open my eyes. The idea itself is probably a mere illusion in this universal sociological world crossed by electronic mail and bike couriers.

I first ordered these arguments in my report of this visit, the impressions of a traveller who returns to the difficult reality of Sepharad, where the labour market is reformed every day, or at least a civil servant with a job for life calls for the following: flexibility for others...

So these “findings” have been ordered and constructed in order that they might help the return, applied rationalism, to those texts-places which enable us to continue that interminable voyage that is the study of the social reality.

I have written these pages, a draft or ordering of what is to come, out of both obligation and a desire to communicate.¹ It can only be hoped that those who know the traveller, or the places visited in this argument, perhaps with a different approach, or perhaps with different interests, or because they live, or simply work there, will help him to organize future visits.

¹ ‘An obligation, which it was a pleasure to fulfill, was met through the presentation of a report to the Becas del Amo Complutense which gave me the grant which enabled me to spend three months as a visiting scholar at the Lewis Center for Regional Policy Studies with Professors Michael Storper and Allen Scott in the Graduate School of Architecture and Urban Planning at UCLA. I would like to publicly express my gratitude to these people and institutions. The comments and observations of Professor Scott have helped me to prepare this English version.

Meanwhile, this text has benefited from many other influences. First, I had the good fortune to be invited by Alfredo Hualde to present a preliminary draft in the COLEF (Colegio de la Frontera Norte) in Tijuana, Mexico.

On my return to Madrid, I was asked to prepare a report on the “state of the art” on “small firms” for a restricted international seminar organized by Arnaldo Bagnasco and Charles Sabel. In order to do this I had to review what had been done and researched in Spain in recent years. Although this work is not exploited directly here, it should be noted that it certainly forms a backdrop to these reflections. Maxi Santos helped me a great deal in the search for material for this work (Castillo, 1993).

In June 1993, when I am writing these notes, I have benefited from further opportunities to discuss the questions treated here in a two different setting. The first was in Caracas, in the Latin American Congress of Sociology, where we discussed the centre of these arguments and where, it is to be hoped, new insights were gained.

Finally to Paris, where Michel Freyssenet, Patrick Fridenson and Robert Boyer brought together nearly a hundred experts for three intense days of work to discuss the possible “emergence of the new productive models”. On this occasion, Japan was at the heart of things . . . and lean production as the theme.

From all this it can be deduced, above all, that we are witnessing a period of deep reflection and great effort by social scientists, *un peu partout clans le monde*, who are seeking to take on board and interpret phenomena which probably affect capitalist societies more radically than has occurred for some time.

For this reason it is not simply a stylistic device to state that this is a draft-paper to a greater degree than is normally the case.

In order to aid my own reflection, therefore, I have chosen to submit this text for discussion in a provisional form. In this way I hope to identify and clarify the problems which will need to be reconsidered.

I wholeheartedly agree with those who argue that it is necessary to adopt a critical (if not destructive) attitude to fossilized theories which attempt, whatever the cost, to force reality into excessively cartesian frameworks instead of re-constructing the theory. To express- the same idea in a formulation used by Manuel Castells in the 1970s, one should manufacture a provisional theoretical-ideological formation in which the theoretical mode of production dominates, benefiting from the “clash” with concrete realities.

I. Introduction: Abundance, diversity and confusion in the studies on the reorganization of production and work

In the 1980s, the social sciences of work (and other neighbours or relatives) accumulated literally hundreds of analyses, case studies, research balances, reformulations and almost constant

theoretical debates. The latter are the result of confrontations between theories which seek to monopolize interpretations, or simply to improve our understanding of the complex nature of the problems raised by the current reorganization of production and the division and organization of labour.²

We now find ourselves, therefore, with an exceptionally rich mass of critical studies, the principle characteristic of which is undoubtedly its heterogeneity, in terms of both approach and methodology as well as of the empirical material analyzed.

Before discussing this point further, it is necessary to highlight another, more striking difference which, whether made explicit or not, is probably more influential in the very internal structures of these investigations.

The intensity of the vigorous “theoretical” debates about the reorganisation of production is in part due to the prospects for their “application” as guides for policies intended to influence social reality.

This “politicization” of the debate signifies that sometimes the central criticisms of a good piece of research is the reproach that it mixes too clearly an analysis of reality with the desires, or the utopias, which researchers have in their heads (or hearts).

Indicative of this situation are the comments of Bennet Harrison, a researcher with an excellent track record of research in the field on which to stand. After presenting a series of deficiencies in the social networks which were the backbone of the Silicon Valley, Harrison has no qualms in affirming that he, himself involved in the development of similar projects, “finds the normative model very attractive, but as a social scientist he remains skeptical.”

This, of course, is but one example of those who confess their scientific doubts about the theses they defend which suggest that capitalism is evolving towards “richer” systems of production. Richer, that is, in terms of relations between people or the distribution of wealth or social justice, as Michael Storper and Allen Scott would say.

Perhaps, however, these researchers would include their own work in a current which aspires to contribute to projects of collective action the objective of which is the generation of “high” systems of production, with good working conditions, high salaries and high productive quality.

Patricia Wilson’s (1993) work on Mexico is an excellent example of what we are saying. The central question of her study is clear: can the present world economy, with the present international division of labour, stimulate anything better than an improved commercial balance of payments and “low” jobs in Mexico? Furthermore, if the answer is affirmative, what policies must be followed for these changes to take place?

² See for example the excellent studies contained in Storper and Scott, 1992, and Dombois and Preiss, 1993; see also Teagu 1990; Elam, 1990; Tickell and Peck, 1992.

We are confronted, therefore, by an exceptional mass of research which in order to be read and interpreted, in order for us to discover “where capitalism is going” (for this is indeed the central concern of this work), requires a cautious and detailed epistemological approach. Only in this way will we be able to extract significant answers from it.

The very wealth of approaches, contexts and objectives which exist requires rigour, screening and classification in order to bring about the very necessary process of confrontation, sifting and “applied rationalism”.

The objective of what follows, fruit of earlier research and reflection, is to contribute to this task.

II. Industrial districts: Which *productive worlds* will dominate at the end of the century?

1. Our central question regarding the basic character of the current reorganisation of production stems from the use of an analytical category, industrial district, which was revived in the 1980's but which has a long, almost centenary, tradition in the work of the economist-sociologist Alfred Marshall.

We have carried out original research and, in order to write this paper, an analysis of existing research, in an attempt to determine the importance of these types of forms of productive organization, the social and economic characteristics which define them, and what consequences they can be expected to have for society as a whole.

All these questions have been treated from the perspective of the current situation and of possible future tendencies. However, given its far from secondary importance, we have also attempted to define and systematize explanations of the social prerequisites of productive organizations. In this respect we have paid particular attention to the local community, social values and the predominant industrial culture, the characteristics and the sociogenesis of employers, the constitution and behaviour of social actors, social relations, institutionalized forms of cooperation, etc.

2. However, now that this objective has been defined, the reader will ask him/herself, “which district are you talking about?” In order to answer this question, we will necessarily have to enter into discussion of the central problems and issues outlined in the introduction to this paper.

In practice, both in the literature and in industrial policies, this analytical category, i.e., industrial district, is used so freely that it can refer to any type of industrial agglomeration, even when this is not made up solely of small companies, as was previously the claim. Equally, it can be used in a much more restrictive, and appropriate, sense enabling the social sciences to separate that which common sense confuses and unify what this same “wild knowledge” separates.

An example of the first position is Allen Scott (1992), who suggests that any industrial agglomeration be labeled an “industrial district” so long as it fulfills the following two requirements: a) that it is a local network of companies with a determined division of labour; and

b) that it is tied into a local labour market. Used in this sense, it is clear, as the author himself states, that a “wide variety” of industrial districts have existed both in the past and present.

In our opinion, even if different types of industrial districts are identified, such a liberal definition of the term constitutes a very general description of a “productive system” (Wilkinson). A category such as “industrial district” can be of little use for sociological analysis unless it is in itself a condensation of social features and contents. Moreover, we see no need to blur these features, for the immediate consequence of doing so, as can now be seen in Spain, is the political confusion between the features which are socially positive for the majority of those employed in “authentic” districts, and the reality of a reconstruction of production which is much more negative for the majority of workers (Castillo, 1993).

As a recent ILO research programme put it, only a rigorous use of this category can prevent the mixing of high ways and low ways (low salaries, insecurity, negative flexibility, etc.) in the paths followed by the contemporary evolution of production. (Sengenberger and Pike, 1992).

In common, for example, with Harrison 1992, and in accordance with the formulation of Marshall reinvigorated by Becattini (1992), I understand an industrial district to be a population of firms, localized in a given territory, among which there are networks of cooperation and trust, and whose “collective worker” is a skilled male or female worker with a high salary, involved in the processes, in a climate of social dialogue, with institutions which materialize those human meanings and intentions, (Polanyi, 1992, p. 251), as well as reinforcing them. In other words, district for us is another way of talking about the “high way” to economic development.

The “industrial atmosphere” of the district, the type of companies, the division of labour between them, the skilled spaces, the labour relations and even the type of life and of society in which they are embedded are, therefore, particular and specific.³

The identification of the “model” of industrial district, however, goes even further, not only as an object of study but also as a collective subject of action, generator of conventional frameworks, in which the actors find a “reflective contextuality” (Cohen, 1990, p. 379) and in which social time and learning, that is history, has an important place. Through this observation I wish to highlight those analyses which appear to forget that the “Terza Italia,” expression coined by Arnaldo Bagnasco in 1977, is now led, virtually, by the children of that experience. History is not only of importance because those experiences are now in crisis for economic reasons (one can now even hear a requiem for the Terza Italia (Bianchi, 1992)), but more importantly because the Italian analyses and theorization, of a truly impressive scope, (see Capiello, 1982) have become to some extent common sense, shared and reflexive knowledge, which changes society itself as much as science (Beck, 1992).

3. If the category industrial district is becoming a *bonne a tout faire* which obscures or

³ Brusco (1992, p.1) synthesizes and defines a “model of industrial district”, insisting in the existence of “a series of shared values and knowledge, of such importance as to define a cultural atmosphere.”

trivializes, “the internal connections of reality”, something similar is happening with the notion of post-fordism and its alter ego, flexible specialization. Furthermore, these are also the terms most commonly used in the literature, alongside a competitor which has grown increasingly strong in the last two years, namely “lean production”, which is depicted almost as the ‘end of history’, the one best way of our times.’⁴

Fordism, used as a common sense notion with a variety of meanings floods as a “key word” any social science data base. Whether alone or with “post”, “neo” or any of the other prefixes which have been added to it, it has come to refer to a stage of capitalist development of which the social characteristics and features are taken for granted.

Not only do distinct usages exist, but the historical conception which presides over many of these periodizations is usually as precarious as “now” and “then”. Or alternatively, “before then”, “then” “and “now” (Gertler, 1992; Walker, 1992).

We have now reached the stage that researchers, using solid and substantial arguments, have questioned the use of the very notion of fordism (Wood, 1989).

In fact, as opposed to the different paths and possibilities opening up to the models of organization of work, this way of thinking by opposites, in this case, fordism versus flexible specialization, “obliges” or carries with it a series of dichotomous assumptions which limit our ability to understand the changes taking place. It obliges us to think in terms of ruptures (before and after) rather than in terms of complex processes. It obliges us to presuppose the existence of one dominant model, or of one which must be one in the future. It prevents us from perceiving (circumstantially) parallel, simultaneous, organizational realities, the extension of “leopard spot” organizational forms, even in a single firm. Furthermore, it prevents us from being able to see to what extent each and every one of these organizational forms makes up part of the same reality, the way in which these are head or tail of the same reality.

Perhaps even more significantly, recent research has shown that not even Ford was “fordist” in the most trivial sense of these dichotomous visions. For his winning card was the production line, but rather a complex ensemble of organizational stratagems. These included the reduction of professional categories, the continual improvement of production processes, the reduction of stocks and of work underway, reducing the time between order, production and purchase, extending model range, even in the Ford T period (Williams and other, 1992). That is to say, Ford implemented something very different to the stereotype image of mass production, something which today, if one forgets who is being talked about, has a slightly Japanese air to it.

Between “the fordism which explains all” and “the fordism which never existed”, find a wide panoply of classifications which, in many cases refer to entire countries or regions, and in which the dichotomous, polarized, vision, which induces simplification, obliges the abundant use of

⁴ Womack and others, 1990: “the end of history” is a critical comment on “the machine that changed the world” by Beggren, 1993. We have discussed this vision of post-fordism, particularly in relation to large firms, more extensively than space allows us to do here, in Castillo 1991. This is the centre of an international research programme, which has just held its first meeting in Paris, and in which we are collaborating; see Boyer and Freyssenet, 1993. In Spanish see, “Modelo japonés” in *Sociologia del Trabajo*, no. 18, 1993.

adjectives to make up for the fundamental epistemological which Gaston Bachelard converted in a classic.

Adjectivized fordism can be classical, flexible, blocked, state, permeable, late, peripheral, primitive, shoddy, caricatured . . . fordism (Tickell and Peck, 1992, p.102). It can also be neo-fordism: an interpretation of change which suggests continuities even with substantial change (Gallino, 1988) or which claims to have discovered that we are faced by the revitalization, under different forms, of labour relations which existed in “good old-fashioned” capitalism. For those who argue that we have entered in a new era, this is a vision of radicals” (Jones, 1989, p.96). In this new stage workers will face more insecurity deskilling, segmentation, etc., “a more sophisticated system for the exploitation of the and technology of production than that which was possible under conventional methods.”

Something similar to this variety can be said of those grouped under the umbrella category of “flexible specialization”. Here too there are excellent studies (Storper, 1989; Sabel and others, 1989, to cite just two examples), as well as others which identify “flex-spec” with salary control or availability of workers (Friedman, 1992).

The result of all this is that we find magnificent studies, but also pure taxonomies, badly identified even in their use of the basic referential empirical data (Leborgne and Lipietz, 1988). Which conceptual framework, which fordism, what is its level of adaptation to the reality and to research questions, which ideal-type reality exists in theory or in the researcher’s imagination, are questions which must be answered in order to be able to identify both the substantive changes identified by the research, as well as the value that can be attributed to these findings.

III. An Oblique View: “Lean production” and “structural flexibilization”

Very different paths are followed by the theoretical interpretations and analyses of what is known as the “Japanese model” which we have consulted (Florida and Kenney, 1990). Possibly the most interesting, if debatable, of these is that which suggests that fordism is transcended through the Japanese model. That is to say, that Japan is a post-fordist society in a stronger sense than that implied by the classic argument of Sabel and Piore (1984), which is in turn known in this school of thought as structural flexibilization, a reality affecting the whole society. This, it is suggested more or less insistently, is the model to be followed, rather than a type of development in the United States characterized by a “breakthrough illusion” (Florida and Kenney, 1990).

Japanese organizational and industrial forms loom large in many of the reflections and comparisons which can be read in the international literature. In some cases, these are presented as the reference to be imitated, a “misunderstood miracle” which explains its drift down the path of flexible specialization (Friedman, 1988). In other cases, because its characteristic features imply a sticky society in terms of the development of “high added value industries”, a concrete proposal made for California by Friedman, 1992, for example. Others, even including some of those working within the flexible specialization school, are more critical in front of the Japanese model (Scott and Paul, 1992).⁵

⁵ The export to Japan of “industrial districts”, the Japanese policy of “creating one, two, a thousand Silicon Valleys” also deserves further

Furthermore, much of the literature has focused on the “transfer of Japanese management concepts” (Jurgens, 1989). Some defend the success of the transfers of these concepts of work and industrial organization (form and character of sub-contracting, *just in time*, quality circles, *kaizen*, continual improvement, etc.), despite, according to Florida and Kenney, 1991), the classical theories of organization. Others, including for example the excellent case studies carried out in California by Ruth Milkman (1992), show that many doubts remain surrounding the transfers of these organizational systems, the companies adopting characteristics better suited to the social reality which surrounds them.

In any event, this comparative, United States-Japan, literature, which either directly or through its treatment of American-Japanese companies, also considers the Mexican situation, raises a number of very interesting points for our consideration of “industrial districts.”⁶

IV. Fordism plus adjective: Towards a classification of research and problems

As we have already noted, the proliferation of studies carded out from distinct scientific or political perspectives relating to the problem discussed here, namely the current reorganization of production and the future of work, obliges us to define and use some classification criteria in order for our own treatment to be more fruitful.

Effectively, under headings as different as industrial districts, company networks (or company-network), local development strategies, post-fordism, flexible specialization, company agglomerations, and many more, now including so-called “light production” model which probably only exists as a company prototype), scientific production has confusingly similar to the dominant ideological, rather than scientific, mainstream.

If the results of this research are not treated with care, a word with positive connotations and its derivatives such as flexible, applied to all type of realities of social production, will only add to our confusion, rather than helping us get to the heart of the social and sociological problems now facing us.

A brief glance at the literature shows that Hyman (1988) may well be right when he refers to the emergence of a “new orthodoxy”. In 1988, Gertler drew up a short list of that “proliferation”; this, however has become incomplete given the subsequent flood: flexible automation, flexible technology, flexible accumulation, flexible specialization, (more) flex labour...

consideration as a contrast. (Tatsuno, 1986). Friedman’s metaphor of a sticky region is another way of identifying those local-regional societies in which, due to the consistency and structure of their social surroundings, the ever more volatile factors of capital and other resources can be stuck, glued, consolidated.

⁶ Shaiken and Browne, 1991; Florida and Kenney, 1991; articles included in González-Arechiga and Ramirez, 1990, etc. See for example, Aoki, 1990; Dore, 1987; Cusumano, 1991; various recent articles by Florida and Kenney, or vice versa; Carrillo, 1991; See also note 6.

Furthermore in many cases, almost imperceptibly (as is the case with Taylor's own arguments), we can perceive the transfer of the adjectivization of machines or systems to that of the men and women who work them. Flexible machines lead to the "production" of flexible, skilled workers with career aspirations, etc., something which in reality is far from being the case.

For this reason, in order to analyze these studies and to define a hierarchy of problems and methods, we suggest the use of two criteria.

1. The first of these can be labelled substantive and consists of identifying the perspective and object of study.

This involves the analysis of a) the labour process, in an industry, factory, or that required for the complete production of a determined product or service. This is a level of analysis of a reality. The consideration of b) the regime of accumulation or c) the mode regulation or socialization, which supposedly adopts one or other characteristic of fordism. These can either be more immediately "technical" ones, such as the direct organization of work, or a part of it, the production line, or more general characteristics of lifestyle or society: the welfare state, high salaries, pacts between capital and labour etc. (Jessop, 1990).

To give just one example. If we deconstruct research in this way, it is possible to discover which flexibility we are talking about, now that everything is, and we all are, flexible and that we should travel lean and light.

If the study is limited to the labour process we should know if this refers to:

- isolated machines or machine systems (flexible manufacturing systems, FMS, for example (Jones, 1989, Castillo, 1991)
- the volume of production
- the type of production or of mix
- the flexible organization of the labour process between companies, subcontracting and the division of labour (Harrison and Kelley, 1990, Castillo, 1989)
- the internal use of the company, in its own workplaces the labour force, so-called functional flexibility, polyvalence, etc.
- the so-called numerical flexibility of labour, that is the possibility (greater for the company) to hire and fire (Standing, 1992)
- "flexibility" of salaries (Harrison and Bluestone, 1990).⁷

2. A classification centered on the object of the researcher's interest alone is not, however, sufficient. A second, epistemological criteria, one which focuses more on the problems confronted and which must reflect the research process, complements the previous one and helps us to order our thoughts, identifying those aspects which will be most important for future research. That is to say, we must identify the "gaps" in the empirical research available, and extract pieces in order to re-construct and enrich the theoretical focus of interpretation of current changes in the organization of production.

⁷ For just two examples of the many detailed studies of these questions see Morroni, 1992, p. 156 and Carillo y Hualde, 1991.

Empirical and theoretical problems emerge clearly from a review of published literature (Gertler, 1992).

When is a district a “district”? What social relations characterize the local society which generate it? What are the sociological characteristics which it should present? When can the characterization of flexible specialization be applied? Is it necessary to identify leading industries which “stamp” a region or constitute a “world of production”? (See the characterization of “technological districts” by Storper, 1992 (a) and (b); Storper and Salais, 1993).

V. The recourse of the method: Three moments, three approach criteria; three priority research problems

1. In accordance with what has been argued above, and considering social reality from the perspective of industrial districts, we believe that three different and analytically distinct moments must be identified. Obviously, however, these stages of analysis remain very closely related to each other.

First moment. Describe and examine the internal functional logic of that which actually exists, exploring its genesis and constitution and identifying its most important characteristics. We will return to this point below, but we have already noted (see Introduction) the frequent mix of the descriptive with the normative or prescriptive, of what exists now with what researchers would like to exist in the future, the confusion of desire with reality.

Second moment. Describe the (possible) tendencies of evolution or change. As opposed to an ephemeral *now*, *the future* implied by present situations is presented by some authors as the central focus of their analysis (Schoenberger, 1988), as the *now* which most immediately concerns us. However, we cannot be too cautious in this respect. Our own recent research on the participation of workers in technological innovation has demonstrated that declarations, intentions and proposals for the future are not always reflected in the productive *reality* of the company or in the working life of the employees. To put it another way, these changes never reach the productive structure (Castillo, Jiménez and Santos, 1991).

Third moment. Describe and identify, in accordance with the framework of action and the situation of the different social agents, the political possibilities, in the widest and most fluid sense of the term, for intervention on reality, the possibilities which a local, regional or national society has for acting on itself.

The separation and definition, as far as this is possible, of these three moments help us to order our reflections on the productive world now developing around us.

An important recent Spanish study on “experiences of company cooperation at the local level”, directed by Mayte Costa, is a good example of the juxtaposition of reality and desires. The “stylized facts” with which the conclusions are presented suggest that we are faced by a world of industrial districts. The analytical data of each case reveals, however, that there are districts and detritus, and that the former do not exactly dominate the Spar world of production. (Costa, 1993;

Castillo, 1993).

2. *Approach criteria.* To extend the framework which we have used in our own research (Castillo, 1991), we have improved upon the triple cross of perspectives which emerge from what Jacoby (1990, p.336) has called the realist methodological criteria. This very similar to what Becattini described as keeping one eye on the theory and the other on the practice: that is to say, observation is in itself theorization (and vice versa).

a) Any analysis of new or old productive realities must be based on concrete and complete productive processes. The starting point for a “reconsideration of industrial organization” (Walker, 1988) must be the workplace: work centres, company, production process of goods or a service.

In this way we can reconstruct the “collective worker” of these processes. We can identify the different possibilities, both negative and positive, but always simultaneous and produced by and in the same productive system, offered by “the organization of work and the local labour markets in an era of flexible production” (Storper and Scott, 1990).

Only in this way is it possible to perceive both the pleasant side of supposed districts as well as the dark side of flexibility, namely the insecurity and precariousness of workers (Standing, 1992).

This criteria which “obliges” us to follow the path from the workplace to the productive system should prevent us from confusing levels of analysis and from making rapid generalizations. As we have illustrated elsewhere through reference to Silicon Valley, this type of approach enables us to see all the aspects of a multifaceted reality which might otherwise escape, as a result of their complexity, a (theoretically) naive and (politically) biased view.

In any event, by separating in the analysis the flexible machines from the hastily drawn conclusion that flexible, in the positive sense of the word, employees must therefore be working them, it may be discovered that “there are many reasons to suppose that a flexible future is not going to be equally brilliant for everyone involved in it” (Schoenberger, 1988, p.259). Firstly, for those women workers who are almost always ignored by what we might call the “propaganda department” of post-fordism. These are those who are normally found in places which the division of labour reserves for the “hands,” where they escape the old theoretical paradigm (Jenson, 1988-19; McDowell, 1991).

This “concrete study of concrete situations” signifies the recovery of all the actors in the drama of productive reorganization and, obviously, the use of “flexible” theoretical paradigms. This might, in turn, lead to the need to escape from what, as we have already argued, some experts have considered to be a limitation of their work. We are of course referring to the very concept of fordism (if in its agony it can still be described as such). This imaginary reference, the backcloth to the current post reality which probably never dominated the production process with the characteristics now attributed to it, should be stored away in the chest of abandoned tools of empirical investigation.

b) The territorialization and the spatial perspective, that is, the localization of productive processes in context is, and we believe should continue to be, an essential criteria of analysis.

In this way the inside and outside of the factory, a fundamental characteristic of fordism according to Antonio Gramsci, once again becomes central to the analysis of changes in production.

In a productive framework defined by territoriality and by the imprecision of the roles classically attributed to the worker, living conditions are now essential aspects of an analysis of labour ; without the social life “outside the factory” (but how do we now define inside and outside?) (Sabel, 1991), a full explanation cannot be given of what happens inside it. A striking example of this is Hayes, 1990, who subtitles his book on Silicon Valley “the seduction of work in an era of solitude”.

c) We believe that it is in the consideration of the industrial culture, the third criterion which we have used in our own research (Castillo, 1989-91), that the analysis, interrelated with the previous criteria, of the localized production processes can advance most.

From these, closely related to the first, those social prerequisites can be identified. These include the political-institutional context, the type of public institutions and policies existing in a territory; the degree of productive specialization; the type of products and production; labour relations; the dominant type of business; the government’s strategic model, cultural change (Harvey, 1989), or about the need to reformulate the existing theoretical production; labour relations; the dominant type of business; the government’s strategic model, etc., etc. A knowledge of these enables us to draw general conclusions about society, about cultural change (Harvey, 1989), or about the need to reformulate the existing theoretical and interpretive frameworks through which we see them (Storper and Salais, 1993; Albertsen, 1988).

3. Having established the logic of the three moments (reality, tendencies and possible policies for change), and the three approach criteria (concrete situations, complete production processes, local society and industrial culture), it is possible to present what we at present consider to be the priority research problems. These are questions about which there does not appear to be a consolidated corpus of research and a knowledge of which could contribute to improve our understanding of the features which characterize a productive system and a society.

a) The strategic governance of localized productive systems. Everything appears to suggest that the “shrinking” of work centres is a tendency which accelerated in the 1980s and which may continue in the 1990s. Granovetter wrote in the middle of the last decade and in reference to the United States that *small flourishes*. Whilst whether small is beautiful, of course, is another question, it certainly is bountiful and for that reason alone it merits the attention of the researcher (Granovetter, 1984, p.334).⁸

If this is indeed the case, the first way of introducing social analyses in what is, sometimes, a

⁸ On the quantitative importance of small firms see a more extensive treatment in Castillo, 1991 and 1993. The b international study is still that by Sengenberger and Loveman, 1987, now included in the book published by the ILO: [The re-emergence of small enterprise](#). 1990.

world of confusion between territorial proximity and social proximity,⁹ is inquire as to how and in whose benefit these systems, constellations or networks of work centres, companies and workers are governed and directed. As I have written in reference to a number of different European studies (Castillo, 1991, p.35) “we could now use the metaphor whereby the “macrofirm” is now a localized social system, of which the small companies are nothing but departments” and that a decisive policy of aggregation of interests is needed in order to maintain a strategic direction.

The problem of who manages the district was identified perfectly by Sengenberger (1988) and the same question has been treated in a particularly lucid and exemplary fashion by Storper and Harrison (1991). Whilst they focus on the relations between companies, they also define a good work programme. Along with the division of power between companies, they identify the need to study 1) productive relations within the centres of production; 2) qualitative aspects of the relations between companies, the complex features of dependency, cooperation, and competition which we ourselves have included in “the division of labour between companies” (Castillo, 1989-91); and 3) the form of governance and the role of public and institutional policies. Similar concerns have led Scott and Paul (1990) to ask themselves about “collective order and economic coordination in industrial agglomerations”. The types they identify are really very similar to those we have used and hence very different to the new theory of the convergence of systems developed by Zeitlin (1989,p.367).

Through the problems of governance and working backwards in the proposed research programme to the productive process, interpretive categories are identified and created which are firmly rooted in the social.

b) This social construction of productive systems requires, obviously, a deeper analysis (and we might add, a study of the genesis) of the social relations on which it is based and in which economic action is “embedded”, to use a term which very rapidly has become a “classic.”¹⁰

To return to the very heart of the problems of social action, a number of questions arise: how the actors, individuals, groups, companies and governments are constituted in each case? How, in interaction with each other, they generate, develop, affirm or dismiss their expectations, their trusted behaviour, on the basis of shared rules which establish, at least in the medium term the conventions of their attitudes or economic commitments.

How are these frameworks for action established when these imply expectations of behaviour which are based on the expectations of others and on the supposition that the latter, in turn, know the expectations of the former, in a type of behaviour which is fundamentally reflexive and strategic.

⁹ Nicole May (1990) has highlighted this confusion or inference, between the spatial and the social. Today (1993) in Spa in which any spatial concentration of small companies ends up being called a district’, dragging with it the image of good working conditions and prosperity which the Italian districts left in the subsoil of social ideas, this observation is of go importance.

¹⁰ The classic is Granovetter, 1985, although, as is well known, the truly classic reference is Polanyi, 1992-1956.

Only in this way can we accurately and scientifically refer to and discuss the existence of “industrial atmospheres”, “productive identities”, “community markets” or as Robert Salais and Michael Storper have done in their important recent contribution “worlds of production.”¹¹

The social prerequisites of economic action must, therefore, return to the forefront of any analysis of economic successes and failures. In this way they become the principal focus which organizes the remaining body of problems in our research agenda.

c) As even those who ignore the Theses on Feuerbach now appear to accept, the present state of research on the reorganization of production and the organization of work allows us to affirm that research is carried out in order to provide explanations and to advance political projects. However, many of the problems of research in this field are constituted by questions as simple, but as difficult to answer, as the following: “is it possible for the social conditions which gave rise to industrial districts to be reproduced through the application of planned social and political action or not?”

Or are they specific, historically constituted cases, to use the words of a critic, “sedimented in particular areas and virtually impossible to transfer to areas where they do not exist”?

It is quite usual to find that areas of production “in districts”, for example the Italian ones, are studied in order “to discuss the possibilities for their replication.”¹²

The policy options therefore, which play, or have played, a role in the construction of these “new” (and not so new) productive spaces, whose central features are cooperation between companies and social dialogue, is now a third research priority.

These three problems, obviously, are intimately interrelated. One might even say that they all refer to one central problem, namely the social explanation of the economy. And probably *vice versa*, as Allen Scott suggests. However, in our opinion, such a generalization prevents us from identifying clearly the axes which should, in the substantive, articulate the three approach criteria discussed here.

If we organize research around these problems, with a territorial and “socialized” focus, distinguishing moments of reality, tendencies and policy choices, it is perhaps possible to know which fordism, (or post-fordism, or neo-fordism...) we are talking about in the new Babel of today, where the cry of fetishistic words such as flexibility or lean production, the successors of others such as “new technology” or “automation,” drowns the whisper of work, of the social actors, of real life, of the possibilities which exist for human beings at the end of the twentieth century.

¹¹ See the different works by Storper and Salais (and vice versa) cited in the bibliography. The 1993 book condenses what is now a fundamental research programme. For an ordered and critical discussion of the contribution of “institutional economics, of “transaction costs”, etc., see Trigilia, 1991. Economic geographers have also considered similar problems, See for example, Barnes and Sheppard, 1992.

¹² The criticism of Amin comes from the end of his 1991 text on Italy, p. 137; the question of reproduction is raised implicitly or explicitly, in many texts, including Hyman, 1988, 1991; Hirst and Zeitlin, 1989, etc.; the authors of the final quote, Quintar and Gatto, 1991 are referring to Argentina.

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