

The World in a Bottle

Or

Window on the World?

Open Questions about Industrial Districts in the Spirit of Sebastiano Brusco

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Of the intellectual figures who gave conceptual shape to the Italian industrial districts in the mid 1980s, Sebastian Brusco was academically and politically the most unconventional. Academically he was of course well trained as an agrarian economist, schooled in Sylos Labini's inventive dualisms, and steeped in the theory of value from Smith to Marx and beyond. But of the great Marxist and *marxisant* economists his favorite was Sraffa. From Sraffa's demonstration that interest rates did not determine a unique choice of technology he drew, with evident pleasure, the heterodox, ultimately un-Marxist conclusion that at any stage of development different bundles of machines and institutions—small factories as well as large, to cite the crucial example—could be equally efficient. A son of Sardinia, Brusco was alien to industrial world and the urbane salons that were until yesterday the home precincts of the Italian Left. He never saw a factory until he began doing participant observer studies with union delegates of low-wage, but not backward factories in what would come to be called the industrial districts of Emilia Romagna. Those studies, digested in articles like "Prime note per uno studio del lavoro a domicilio", reveal the passionate, engaged, yet meticulous curiosity of a man urgently seeking allies, data and concepts all at once, right away, and again and again. To my mind, we honor Sebastian Brusco best by pursuing his master project of understanding the detailed economic organizations of the industrial districts and the political opportunities and dangers associated with them in his spirit: open minded, factually disciplined and conceptually bold. Thus to honor him I want to raise here questions—questions he would, I hope, want answered—about the idea of the industrial district that he did so much to bequeath us.

The received idea of the cluster is familiar enough so that the briefest allusion to it establishes the common ground for our enquiry: Clusters are "naturally" occurring, geographically compact agglomerations of firms, generally small and

medium sized, cooperating directly or otherwise drawing on common resources in one or several closely related areas of economic activity. By spontaneously recombining and augmenting fragmented specialized, and mostly tacit knowledge—know-how embedded in a way of life—a cooperative multiplicity of clustered firms adapts rapidly to changes in the economic environment. Since the turbulent, continuing transformation of products and markets now called globalization began to put a premium on such robustness in the mid 1980s, clusters have been widely regarded as a model, microcosm, or key component of the “new” economy, able to prosper in much more volatile conditions than the traditional large corporation.

About the extraordinary performance of clusters in comparison to other forms of economic organization there is little doubt generally, and in Italy least of all. New districts are spreading like oil spots southwards from the original Third Italy down both coasts, obstructed only by the physical hulks and social obstructions created by failed mass production “growth poles.” Districts are emerging in the South, sometimes spontaneously, sometimes with the encouragement of novel development pacts. FIAT, long the symbol of the “truly” modern face of the Italian economy to those who saw the districts as retrograde, is declining—but Turin may well survive as an automotive district. Given such success it is no surprise that policy makers, anxious to offer the prospect of some economic and especially employment security in a global context that seems to mock stability, are drawn to the idea of at least fostering the background conditions that may encourage the emergence of clusters, if it is not possible to create them deliberately.

But as I see it, our understanding of how clusters work today does justice neither to the complexity of their successful reality nor to the demands for guidance that politicians and policy makers may reasonably make on academic theories. The blunt, extremely sophisticated, politically consequential and still very inconclusive debate about the evaluation of the controversial *patti territoriali*, to which I will

return below, is here the most pertinent illustration. Perhaps current developments have escaped the confines of once sound conceptions. Or it may be that the years have only brought to light flaws buried deep in the original distinctions. Either way, I will argue that our ideas of the cluster do not respond to basic questions that might be reasonably posed of this, or any other economic institution operating in today's world. The answers to the questions that follow next will, of course, turn out to be linked: a promising response to one will suggest approaches to the others, and the workable answers will together suggest a picture of what a cluster is. Sometimes I will not resist the temptation to suggest such connections; indeed, some of the questions themselves will be so burdened with assumptions about eventual, linked answers as to raise the suspicion that I leading the reader towards a favorite conclusion rather than sticking to business and opening an enquiry. But despite such editorial intrusions, the advantage of asking discrete questions about the various dimensions of a how cluster works, rather than venturing my own conceptual picture of the working cluster, or attempting a critical synthesize the rich but fragmentary empirical work we have before us is precisely to loosen the grip, if only partially and temporarily, of just those rival ideas of the essence of industrial districts—their constitutional differences from the familiar firm, large and small—that both singles them out as an invaluable form of cooperation and apparently blocks deeper understanding of it.

Consider, therefore, the following questions as an attempt to frame conceptually a piece of a research agenda that, starting with a detailed, comparative look at clusters on several very general dimensions could help frame the discussion, already underway, of how to re-conceptualize the districts while building and rebuilding them. The first set of questions go the most general questions of contemporary economic organization: the conditions for sustained innovation, the nature of the links between adaptive firms inside and outside of districts, and the problem of governance. The second set goes to the problem of creating the new public goods—the exoskeleton of district-wide cooperation needed for ensembles

of firms to compete under the new conditions of exchange. The third goes to the closely related problem of reorienting the local welfare system of the districts so that the way individuals and families protect themselves against risk reinforces and is reinforced by the operation of firms. For purposes of this presentation the focus is on stating the theoretical puzzles. If the approach is found to any merit, we will have no trouble correcting these first formulations and transforming them into part of a larger research agenda.

Innovation and Organization

1. What keeps clusters innovative? The literature on innovation suggests two utterly contradictory dynamics for the renewal of knowledge. The first is positive returns or network externalities: knowledge begets more knowledge. This idea, associated with the work of Brian Arthur or Paul Krugman, fits well with the notion of geographic agglomeration—the presence of firms specialized in one line of work attracts, or makes it easier to find others, which makes the region both more specialized and more attractive, and so on. This suggests a winner-take-all economy in which a cluster or firm, once competitive, becomes ever more so. Crisis are more apparent than real in this world because the fund of (mostly tacit) knowledge accumulated in a successful cluster is by definition larger than that available to smaller competitors, and therefore sufficient to re-launch growth in the next round.

In the alternative view success is as much a burden, perhaps even a curse, as a blessing. This is the world of “disruptive” technologies described by the production-engineering wing of the Harvard Business School associated with Abernathy, Clark, Fujimoto, and Christensen. A disruptive technology is a superior alternative to the currently dominant know how, whose potential escapes the most masterful producers and users of the dominant method precisely because their experience teaches how to improve on what they already know and how to find flaws in upstart challengers. Disruptive technologies

therefore begin to realize their potential in secondary or peripheral markets of no interest to the dominant players. Proven there by “outsider” firms, they are generalized to core domains of application, dislodging the incumbent producers. (Famous examples include electric-arc or mini-mill steel producers, hydraulically activated earth-moving equipment, and, of course, in the realm of general production technologies—lean production.) All established technologies are in principle disruptable in this way. The result is an economy in which winners take all for a short time, and their victories are short because of a self-limiting cognitive property of success itself.

This view is superficially more compatible with broad-brush descriptions of how clusters innovate. Any account of the adaptiveness of districts refers, after all, to their internal diversity. However specialized they may be with respect to the economy as a whole, successful clusters always mix firms pursuing different submarkets in different ways, and with varying degrees of success. In other words clusters are always bundles of winners and losers, incumbents and outsiders. When winners and losers switch positions, the resilience or competitiveness of the cluster is secured, not threatened.

The problem, you will have guessed, is that the cognitive self-limitation that blinds incumbents—producers and users—to the threats they face seems to be rooted in the same kind of tacit, taken-for-granted knowledge/know-how/culture of joint action that founds the clusters’ cooperative flexibility. At the least we would have to specify the consensual/cultural or institutional backdrop to cluster cooperation precisely enough—and at all events much more precisely than I believe we can manage now—to assess whether the conditions of flexibility (can be made to) moderate rather than exacerbate the peculiar, self denying blindness of success. Big firms and readers of the *Harvard Business Review*, we can presume, take this “innovator’s dilemma” for granted, and try to cope (a little pathetically) by keeping the image of their vulnerability and corporate mortality always before their eyes. What, if anything, do clusters do? If the historical

record shows that modern clusters are not disrupted by disruptive technologies how do they manage this? What can other economic institutions learn from their success? [[add comments on affinity between the federal solution to governance problems and district-like structures—see Nypro, ITW. If some have recovered from disruption, but other not, what can we learn from the survivors? And so on.

2. Of what global production system(s) are clusters a part? Where the first question asks after the general innovative dynamic of successful clusters, the second asks after specifics of the coordination mechanisms that allow them to collaborate with both local and long-range partners. When clusters were first characterized they were presumed to be either nearly self contained producers of consumer or capital goods (shoes or machine tools, for example), or else producers of key components or intermediate goods (pumps, textiles) within relative stable and limited subcontracting systems. They were, so to speak, exquisite models of the new economy—ships in a bottle, where the bottle had the wondrous property of scaling to contain the whole world. Among its many other effects “globalization” has undermined whatever plausibility of such near-magic assumptions may have had. There are clusters that have globalized, reproducing their domestic structures in whole or in part in distant economies. Conversely, there are many examples of multinational or global firms that have “localized” or “clustered”—buying a subsidiary in a cluster, learning to use the latter’s local connections, then making the connected unit the world center, within the firm, for a particular activity. In some places multinational firms are encouraging clustering around local production sites by promoting the co-location of suppliers and the diffusions of the technical skills associated with modern production. Clusters are now windows on the world, not the world in miniature.

How should this emergent system be conceptualized, presuming of course that it is one system, not several, and also not an unstable assemblage of elements? This is a question, of course, for anyone concerned with understanding the current world economic order, not just students of clusters. But no who is

interested in clusters as a peculiarly adaptive economic form can skirt this question without raising doubts about the foundations of the interest. What could it mean to say that clusters are in some sense a cornerstone or an indispensable building block of the new economy if we can neither claim that they are islands, somehow protected from internal change by the same medium that connects them to the external world, nor explain in detail how their internal architecture links with the changing structures of their distant partners?

Note that the drift of some of the most relevant discussion seems to invite a re-conceptualization of the global structures from the vantage point of a conceptually disinterested—open minded—investigation of the linked changes in the relation of clusters to the broader economy and of cluster actors to each other. The descriptive literature on global supply chains is particularly suggestive here. The first generation of that literature left no place for clusters at all: It depicted supply chains as dominated either by large first-world producers (the auto OEM's) or first-world retailers or designers (the GAP's and Nike's). The second generation noted that large first-tier suppliers, typically from recent developers such as Taiwan or South Korea, enjoyed substantial autonomy with respect to their multinational customers. The third, most recent generation of literature observes that suppliers at many levels—at least some of them quite low—in the supply chain are capable of surprising autonomy as well, and this often because of links to other, capable local actors of the kind associated with clustering. Plainly the downward and sidewise reach of the global supply chain literature has to be met by an extension upwards and outwards of cluster-based reflection. The mutually transformative joiinder may not be the key to all human knowledge; but it will be a much better picture of the links between local and global action currently available.

3. How are clusters responding to the flexible formalization of knowledge that seems to accompany this interpenetration of the global and the local? I am referring here to the new forms of standard setting and revision that increasingly

structure co-design and quality control processes between customers and suppliers. This query, to be fair, is so laden with assumptions drawn from my own work as to be, perhaps, one of those leading question I warned you suspect. At any rate my strong hunch is that these new disciplines play an important part both in mitigating the cognitive self-limitation at the heart of the innovator's dilemma and in shaping the links that connect cluster firms to each other and the world. They increase the transparency of the actors to each other essentially by revealing to each how widely and rigorously the others scan for solutions in addressing mutual problems of design or quality. In the form of benchmarking or root-cause analysis, for example, they require the actors to undertake searches that are unbounded ex ante (consider all the products "like" the one you want to build; assume that the root cause of a problem will have no direct connection to the proximate cause), yet sufficiently informative to produce a serviceable map of the available solution space. As each party monitors the others' search process, tacit knowledge is rendered at least partly explicit, easing long-range collaboration (by reducing the chances that the parties take incompatible things for granted) and reducing the chance that all the parties cling to the same dangerously limited assumption (by routinely disrupting the disposition to take the same things for granted. Whether such logic corresponds to the facts is, of course, another, very open question. But if it doesn't, just what are all those painfully acquired disciplines doing in the clusters and the multinationals, and what other, inconspicuous mechanism or mechanisms are solving the coordination problem and easing the innovator's dilemma.?

4. Governance. Let governance be the general name for institutions actors choose to protect themselves from the vulnerabilities created by the intimacies of exchange. Problems of governance are then the general problems of economic organization touched on above as they intrude, imperatively, on the daily choices of the immediate participants. Current discussions of governance focus on two manifestly unsatisfactory approaches—the first a theory discredited by practice, the second a practice not yet validated either by experience or theory. A

moment's reflection on each helps situate the districts' continuing confusions with this fundamental problem.

The discredited theory is, as you have again guessed, is the principal-agent or shareholder-value idea of the firm.¹ At the limit, as developed in the work of Jensen and other finance economists, the firm dissolves into a nexus of contracts and coordination problems are solved by giving managers options and other claims on future returns that enrich them if they enrich the firm's debt and equity owners. Since Enron we know that the temptation to benefit from the appearance of success leads to deceptions that undermine the good-faith underpinnings of market exchange. Among US corporate law experts attention has shifted in a twinkling away from the principal agent relation between shareholders, boards, and managers to the broader problem of ensuring the integrity of gatekeepers—accountants, lawyers, analysts, investment bankers—in a system of regulatory disclosure.

The unproven practice is the elaborate project-selection and evaluation mechanism that emerged in many large firms and their suppliers in the last decade in response to the changing organization of production in global supply chains. Prudence and decency aside, a key reason there were not many, many more Enrons is that many firms, seeing the dangers—the dangers to themselves as going enterprises—of the kind of internal decentralization an opening of organizational boundaries required by globalization improvised internal monitoring systems that partially reconciled the need for comprehensive oversight with the need for local autonomy. The reconciliation was partial because, so far as I know it has not yet resulted in a robust model, in theory or practice, that connects project-based decision-making to reliable and informative

¹ For the shift away from shareholder value and the focus on board-shareholder relations see, for example, the recent work of Jack Coffee. For a thoughtful statement of the need to re-think finance economics in the light of the changes in firm structure evoked here, see Luigi Zingales,

financial-market disclosure via a mechanism that makes the corporate or firm center both a responsive support to the project teams who do the work and the credit market institutions who provide the finance.

So, at least from this 39,000-foot perspective, the governance challenge to the districts is clear and daunting, but no more daunting, perhaps than the challenge faced by other domains in the economy: How to build on the emergent practice of project-based accountability while responding to the demands and temptations of financial markets that often insist on principal-agent reporting and lines of authority, though more from habit than conviction? District firms typically have long backgrounds of family ownership and deliberately opaque, tax avoiding financial structures. But they also have local examples of firms like themselves that have listed on the exchanges; and in any case many have important clients who expect their own project review mechanisms to have well functioning counterparts in their district counterparts. Looking beneath the important but insufficiently informative question of the firm's choice of its corporate form to the broader question of governance in relation to project supervision on the one side and financial reporting on the other, can we patterns emerging in the districts? What is the role of the unaccountably understudied institutional architects of the districts—the accounts, procurists, lawyers, and local bankers—in fostering or impeding this adjustment. My hunch is that this is an area where district firms have both a lot to teach and a lot to learn from large firms, and large financial-market intermediaries. [[MAYBE THIS IS THE PLACE TO INTRODUCE NYPRO AND ITW]].

The New Infrastructure of Cooperation:
Public Goods as Process

Another, related way get at the clusters' response to the problems of coordination and innovation is to look at the ways the actors themselves are addressing them through the joint creation of new infrastructures or the reorientation of existing ones. A virtue of this vantage point is that it strongly suggests common treatment of two themes that almost surely should be addressed together, but that for reasons I will refer to in a moment typically are not: the process by which established clusters create new joint problem-solving mechanisms to face crises, and the process by which new districts capable of joint problem solving are created in the first place. Let me say a word about each in turn, and then draw a conclusion about what we know about both together—a surprising amount, it turns out—that bears directly on the intellectual and party political politics of a new agenda for district research.

5. How, then, is provision of infrastructure changing in the classic districts? Until roughly the early 1990s there was an “obvious” need for a mixture of specialized and standard “real” services: quality assurance, technology scanning, payroll, accounting and other functions required by firms that were too small to serve themselves. It was equally obvious which regional institutions and sectoral associations (the CAN, Confartigianato) were “naturally” positioned to provide them, and even which kinds of leftist and Christian Democratic politic cultures were the “natural” seedbeds of the propitious kind of associationalism.

Since then neither the needs nor the relevant actors have been anything like self-evident. On the contrary: many of the older generation of institutions have been closed, and disagreements over possible successors have hampered the development of new ones. Indeed the process for deciding how to choose new infrastructures has become a matter of intense local debate, with different regions and districts choosing different procedures.

These changes, like the ones surveyed above, are not peculiar to the districts. In Italy, many other member states of the EU, at the EU level itself more and more

public administration is becoming processual. At first glance it seems counter-intuitive that the public can be sure of the need for collective goods, yet have only the thinnest of substantive ideas of what those goods should be. But consider the analogy to developments already touched upon in firms and clusters: Just as firms benchmark and do root-cause analysis to find designs and errors they did not know they were looking for, so the clusters and public administration in general are creating processes to define public goods that cannot be specified with any precision before some combination of public and private actors undertakes to provide them. Bobbio's work on "contracting" in Italian public administration is one invaluable reference here. Piva's excellent studies and training manuals on the emergence and operation of the territorial welfare state are another. [[note move to person-centric services requires many specialized provides to customize and integrate their services at the local level, and of course reorganize internally to so as to facilitate these changes. customization and integration of many Surely looking at these changes in the provision of district infrastructure in the context they provide will inform our general understanding of how clusters work while improving our ability to help them think through their own problems.

6. What can we learn from the successes and failures to create new districts through the creation of new collective problem-solving mechanisms? Of all the innovations in public administration that might properly form the context of comparison for the investigation just proposed, the most politically and intellectually salient one is doubtless the controversial *patti territoriali* mentioned earlier: the bundle of programs, some domestic (of various vintages), some originating in the EU, aimed at fostering the emergence of districts in the South of Italy, and elsewhere in the country, including, for instance, Piemonte. They do this by incentivizing local actors to choose projects that promise to improve both the prospects of individual firms and the collective capacity public-regarding decision-making. Put otherwise, these are pacts for turning local economies into districts. As you know, in some cases, but only some, these pacts have been

strikingly successful. But intellectually and above all politically there performance has been sharply questioned. Understanding this mixed outcome in the light of the questions so far is important for the orientation of the next rounds of district research.

The successes of the pacts are insightfully captured in Carlo Triglia's review of the research on the *patti* in *Stato e Mercato*, and amplified in the recent, official report on their performance, "La lezione dei Patti territoriali." The key findings are that districts can be created even in the absence of substantial economic resources or a traditional endowment of intangible "social capital," understood as a pre-economic disposition to cooperate in ways that also foster joint economic action. This is great news given the fatalistic view of the capacity for economic development as something granted, or not, by history, that has long burdened the South, and through it Italy as a whole. The bad news is that only a subset of the *patti* had this result, and the research has little to say in detail about what works and what doesn't. Nicola Rossi, whose own views of economic development seem to suppose just the centralized steering capacity and market efficiency (and ignore the connections between group action and political alliance creation that have been key to the Italian Left since Togliatti) that the spread of the new benchmarking techniques and processual forms of public administration disclaim, points to a key puzzle, even if he exaggerates for polemical effect:

É singolare che una strategia di intervento per il Mezzogiorno come quella avviata fra il 1996 ed il 1998 – cosí massicciamente fondata sul monitoraggio, sulla valutazione e sulla sanzione – abbia fino ad ora rifiutato di sottoporre se stessa ed i propri risultati agli stessi principi cui essa si é ispirata e si ispira tuttora.

How can we explain the gap between programs that seem inspired by confidence in the transformative power of informed, practical deliberation, and program management that almost regards such deliberation as an afterthought—or in any

case does little to put it systematically at the service of the actors themselves? Against the backdrop of the discussion so far this “singular” result looks to be more the incidental outcome of the classic idea of the district and the research program associated with it than an inexplicable inconsistency or lack of attention. Recall that the original cluster idea rooted an innovative economic form in a vaguely defined cultural setting. In the absence of program of investigation into the changing institutions of economic innovation and cooperation, what was left were debates about the relative role of culture and political or otherwise aggregated community will in the perpetuation and creation of districts. Just as introduction of the *patti* was in some sense the continuation, even culmination of the localist stream of politics on the Italian left, so the research into the operation of the *patti* was the culmination of the leftist, localist research tradition. The outcome of that research is an important finding: social capital, as Triglia (and Evans) say can be constructed. There is no inevitable contraction between heritage and will. But Rossi, and many other who have a better understanding and more sympathy for districts in a global setting will want to know the answers to all the theoretical and practical questions that arise once this matter of principle has been decided—above all, by what institutional means to firms and districts create the conditions for their own cooperative success?

Closing the Circle Back to Brusco and Politics

So let’s take stock. New economic actors—“open” or internationalizing districts and the *patti territoriali* or “pact-districts”—are succeeding under novel—global—conditions of competition in ways that perturb, if they do not confound, the expectations of insightful academic observers and leading, national exponents of the Left. This summary should sound familiar, because it is: Substitute “small firms and districts” for “open districts” and “pact districts,” and today’s perplexity is quite like the perplexity Brusco faced at the start of his engaged empirical work. To say this is not a confession of intellectual or political bankruptcy. It

would be strange indeed if the only good ideas and policies that did not need to be reconstructed from time to time in the light of experience were the ones that happen to touch on our own deep commitments.

More important, finding ourselves once more in Brusco's shoes, we should have a sense of how to proceed. When the actors and their exponents are both perplexed by their forward lunges as much as their shortfalls, Brusco's example instructs us, that is an especially fruitful time for both to acknowledge their uncertainties and undertake together to clarify the situation and reflect on prospects. This is what Brusco did in his early work with union delegati, and what Vittoria Cappechi and Adele Pesce, among others, did to significant intellectual and political effect for years in Inchesta.

Such collaboration between academics and economic and political actors could today take many forms. But two projects seem particularly appealing given the discussion so far. The first would be a joint investigation by thoughtful protagonists of some well chosen group of successful and struggling "pact-districts", together with academics who have followed these districts' development, of the causes of good and bad outcomes, and of the possibilities for moving from the latter to the former. This is the kind of discussion that would give the Nicola Rossi's of the world something to think about, while making talk about the construction of social capital into a tool for making economic progress. It would produce new ideas, but it could also produce new allies as different social groups, in different places, discover commonalities in their projects. The second project would be a similarly joint investigation of the processes for defining new public goods, again with the intention of learning how to do better from the patchwork of successes and failures. In both cases the emphasis would be as much on creating a common language for continuing exchanges among the districts as on forging a common language for diverse kinds of practioners and academics. It too would shake up and reform concepts and alliances. My hunch, of course, is that the two projects will turn out to be mutually illuminating,

even convergent, because the ways of steering development in the successful patti territoriali and the ways renewing the public infrastructure of the existing districts will turn out to be two important cases of a more general story about the defining of new public goods (or the construction, through politics, of certain kinds of social capital). The alliances they create might merge as well.

If this actor/observer collaboration achieves anything remotely approaching such results, it, and the alliances it produces, are likely to advance a cause as urgent now as in Brusco's day, and always dear to his heart: creating an exchange between national politics, and especially the national politics of the Left, and innovative local experience. Nicola Rossi's skepticism about the patti gives voice to a deep liberal suspicion, bordering on resignation, that in the end the modern center, with its pristine systems of incentives for individuals, has nothing to learn from the collaboration of groups in the backward province, and that any talk to the contrary is a pretext for clientelism or code for a continuing attachment to the failed categories of class and social transformation. Brusco responded to the different, but equally dogmatic national political doctrines of his day by helping local, social innovators find a voice that made their achievements more intelligible to themselves even as it commanded a national response. And through the same active research he became a champion of a national politics of economic development that left room for and could (sometimes) be redirected by the local innovation it encouraged. But Brusco himself never became an apologist for localism, or the small firm, or even the industrial district. This provocative balance between speaking for others and helping them speak for themselves, between the view from above and outside and the view from inside and below was, I think, Brusco's political and intellectual legacy—the lesson he wanted, sometimes despite himself, to teach. We will never know the full value of that legacy unless we try to earn possession of it under the sometimes dispiriting conditions of our own day.

