

Denis Maillat, acteur et témoin d'un tournant de la recherche

Roberto Camagni

IN **REVUE D'ÉCONOMIE RÉGIONALE & URBAINE** 2021/1 **Février** , PAGES 13 TO 21

PUBLISHER **ARMAND COLIN**

ISSN 0180-7307

ISBN 9782200933791

DOI 10.3917/reru.211.0013

Uploaded: 02/22/2021

Article available online at

<https://shs.cairn.info/revue-d-economie-regionale-et-urbaine-2021-1-page-13?lang=en>



Discover the contents of this issue, follow the journal by email, subscribe...
Scan this QR code to access the page for this issue on Cairn.info.



Electronic distribution Cairn.info for Armand Colin.

You are authorized to reproduce this article within the limits of the terms of use of Cairn.info or, where applicable, the terms and conditions of the license subscribed to by your institution. Details and conditions can be found at cairn.info/copyright.

Unless otherwise provided by law, the digital use of these resources for educational purposes is subject to authorization by the Publisher or, where applicable, by the collective management organization authorized for this purpose. This is particularly the case in France with the CFC, which is the approved organization in this area.

Denis Maillat, acteur et témoin d'un tournant de la recherche

Denis Maillat, actor and witness to a scientific turn

Roberto CAMAGNI*

Politecnico di Milano
Roberto.camagni@polimi.it

*President of GREMI after Ph. Aydalot's passed away in 1987.

- 1 -

Introduction

Denis Maillat was a pioneering researcher on local production systems, investigating in particular the entrepreneurial and technological transformation of the Swiss watchmaking area, the Jura, in the last quarter of the past century (Maillat, 1984 ; Maillat and Vasserot, 1986). Subsequently, he became an influent member of the GREMI network – Groupe de Recherche Européen sur les Milieux Innovateurs – funded in Paris by Philippe Aydalot in 1983-1984, and was elected since the beginning its Secretary: tireless organizer, financier of many scientific initiatives, conferences and workshops, publisher of many collective books with his institute, the Institut de Recherches Économiques et Régionales (IRER) of Neuchâtel.

All this is well-known. What is less known is that he has been – and here I express a personal opinion that I think is widely shared inside the GREMI – the best witness of the internal discussions and interactions within the group, the one with the best capability of promptly synthesizing the scientific goals and achievements of the group and, above all, the one with the clearest perception of the advancements realized with respect to the general and rich international debate that was going on at the time. Reading (and re-reading) now some of his works during the 1990's with a particular attention to the publication dates, I realized the extent by which he was able to underline the conceptual novelties introduced and the logical consistency of our collective work and scientific program, particularly in its pioneering phase 1984-2000.

The aim of this brief note is to justify this opinion of mine, at the same time exploiting the opportunity to review some of the new concepts and ideas that brought to the scientific turn towards an evolutionary theory of spatial development, starting from some revolutionary theoretical developments taking place in those years. In doing so, I will mainly use Denis's words (or my literal translation from his French publications), underlining his synthesis of group discussions and production.

- 2 -

The scientific context and the GREMI's research program

Scientific advances do not spring from a vacuum but build on existing knowledge and innovation, adding marginal steps forward by "sitting on the shoulders of giants". This is particularly true when speaking about theoretical inquiries developed in the period already quoted. Economic thought in that period was deeply influenced by some seminal, interconnected developments which represented the basis on which the GREMI reflection started; namely:

– in pure economic theory and methodology, the contribution of the theory of bounded rationality, uncertainty and procedural rationality (Simon, 1976),

developed on its turn on previous contributions by Arrow (1969), Malmgren (1961) and others;

- in institutional economics, the works of Oliver Williamson and Douglas North on rules and behavioral codes, markets, hierarchies and transaction costs (Williamson, 1975, 1985; North, 1990), emphasizing the role of institutions that “embed transactions in more protective governance structures” (Williamson, 2002, p. 439);
- in industrial economics, the evolutionary theory of innovation (Nelson and Winter, 1982; Dosi, 1982; Dosi *et al.*, 1988) emphasizing path dependence, technological trajectories and inter-firm cooperation;
- in regional economics, the seminal works of Becattini on Marshallian industrial districts, revealing the role of the local context – in terms of socio-cultural relationships, trust, cooperation and sense of belonging – in boosting the efficiency of local production systems (Becattini, 1979, 1990). This gave rise to a host of related empirical concepts and case studies for decades;
- in the theory of dynamic systems, the concept of self-organisation launched by Prigogine and applied to spatial systems by Allen and Sanglier (1979) and later on by Camagni *et al.* (1986).

On the basis of this super-synthesized state of the art in the field on which the GREMI engaged, the premises, the goals and the logics of the group were perfectly presented by Maillat and his partners in Neuchatel (Maillat *et al.*, 1991, citations from p. 408-411):

- innovation is a “complex and interactive process”: implies a “techno-economic creation” through an interaction with a specific environment and requires a “collective effort” (Gaffard, 1986; Planque, 1991);
- “the territorial organization is an essential component of techno-economic creation” (Perrin, 1990);
- cooperation in the innovation process - overcoming the standard organizational forms of market and hierarchy – takes place thanks to two interacting “operators” (Camagni, 1991a): the local *milieu* and innovation networks (*réseaux d’innovation*). The “milieu” may be defined as “a set of territorial relationships encompassing in a coherent way a production system, different economic and social actors, a specific culture and a representation system” (Crevoisier *et al.*, 1990): these relationships concern sub-contracting but also professional, social and cultural links inside civic and economic associations. These relationships, mainly informal and “atmosphere” ones, generate the texture of interpersonal “trust, mutual knowledge, reciprocity and priority”, originally addressed to non-economic goals, over which more formalized cooperation networks are established, directly addressed to the innovation process (Perrin, 1991);
- local *milieu* and innovation networks give rise to “the constitution of a *relational capital* allowing partners to enlarge the field of their collaboration and to build common projects” (Maillat *et al.*, 1991, p. 410)¹;
- local *milieu* and innovation networks are “depositories of a collective know-how that is superior to the sum of individual know-hows of local actors (...) and allow the development of processes of *collective learning*” (p. 408);
- *milieu* and networks are in constant interaction and represent “an *evolutionary mode of organization of innovation processes*”. They “determine a space of collective

work adequate to a creative combination of know-hows internal and external to the firm" (p. 409);

– *milieus* and networks "are characterized by their own system of rules defining obligations and constraints to their members" (p. 408).

All these elements represented the theoretical conjectures and concepts launched by the GREMI group, initially corroborated through the launching of series of organised and comparable case studies on different industrial areas in Europe (and the United States) sharing the characteristics of local *milieus* (Maillat and Perrin, 1991; *Maillat et al.*, 1993) and subsequently through econometric studies (Capello, 1999a).

- 3 -

Theoretical achievements

Looking from a historical perspective, the research program, illustrated in the preceding section, has presented relevant theoretical concepts in a consistent way that were widely utilized and developed in the subsequent international literature. In spite of that, the attention and judgement of colleagues in regional science and related fields were not at the level of our expectations, perhaps because many were engaged in similar research programs. At this stage, underlining the theoretical achievements of the group in those pioneering years and its further scientific developments in the following years looks worth and useful.

In general, it is possible to affirm that the theory of *milieux innovateurs* represented the transition from a theory of location to a (spatial) theory of innovation: from the explanation of the genesis and competitiveness of industrial districts and specialized production systems, to the dynamics of these areas and the crucial role of territory in techno-economic creation and transformation processes. Allen Scott, invited to one of the GREMI Conferences in 1989 in Barcelona², suggested to me this precise statement, that was clear to us but confirmed by other scholars. Jean-Luc Gaffard (1992) in particular precisely stated that "the Marshallian District has never been analyzed as a part of a general theory of economic change", while what we need "is to found the analysis upon a solid theory of economic change in such a way that territory appears no longer as a given set of locational factors and institutions, but is regarded instead as a specific resource in the sense that its construction becomes an essential element of the process of change" (Gaffard, 1992, cited in Maillat *et al.*, 1995, p. 252).

The overcoming of purely geographical space with the concepts of *relational space* and *relational capital* represents a relevant theoretical achievement. Already in 1980, I defined economic space in terms of relational flows: the set of functional and hierarchical relations that take place on geographical space (Camagni, 1980). In the following decade, social relationships were added to the previous ones as crucial economic forces, thanks mainly to the work of Becattini and the early works of

some GREMI members; relational (and identarian) capital emerged as an essential element of what later on was called “territorial capital” (Camagni, 2009). Through multiple econometric studies, immaterial territorial elements like social, relational and cognitive capital were subsequently proved to generate a relevant upgrading of the productivity of material and human capital (Camagni, 2017). Furthermore, it is interesting to note that not just cooperative relationships were considered in the GREMI interpretative framework, but also power and domination relations (Maillat *et al.*, 1991), so that the evolution of the hierarchical dependence structure inside the local *milieu* was studied as one of the main determinant of the dynamics of local transformations.

A further concept launched by the GREMI group was the process of *collective learning* (Camagni, 1991b; Maillat *et al.*, 1991; Perrin, 1995), understood as the specular process – developing among small firms inside local production systems – of the internal learning processes taking place inside the large companies thanks to their internal differentiation in functional terms. Main channels of the territorial learning process were indicated in customer-supplier interaction, cooperation with subcontractors, cooperation among firms inside large production orders, imitation, personal professional mobility chains inside the area (Maillat and Kebir, 1999; Capello, 1999b). The concept was already in the air with different characters thanks to the works of Lundvall (particularly in 1988), but it was never applied before to the case of regions and local production systems. One of the main roles of local economic space in innovation processes was indicated is the supply of the physical and relational substrate on which processes of collective learning are embedded (Camagni, 1991a). Some years after, the popular concept of “learning regions” implicitly utilized the same interpretative tool with a different label and a mainly empirical and policy use (Lundvall and Johnson, 1994; Asheim, 1995; Florida, 1995; Morgan, 1995). Later, Keeble and Wilkinson (2000) borrowed explicitly the GREMI concept of collective learning, introducing it in a wider theoretical and empirical work.

The concept of collective learning plays a key role in the scientific turn towards a dynamic approach in regional economics: not just because it is inherently a dynamic process leading to incremental innovation, but because the local context itself evolves in parallel, producing new organizational forms and structures, new commercial and labor market relations, new demand for knowledge production and/or acquisition. Consequently, “the *milieu* is not a simple pool, a reserve or storage locus where local actors could find the necessary resources for innovation. It is the dynamics of this *milieu* that generates opportunities for innovation, provoking and inspiring responses by different local actors” (Maillat *et al.*, 1991, p. 411; Crevoisier *et al.*, 1991).

In the dynamic interpretation of the innovation process, the role performed by the local territory or *milieu* of enhancer of techno-economic creation (today we would speak of knowledge creation and creativity) is the one usually underlined in the literature³. But there is a second conceptual role of the *milieu*, a second side of the same coin that requires an appropriate theoretical interpretation: the

reduction of static and dynamic uncertainty that permeates the innovation processes due to its projection into the future. One of the achievements of the GREMI is the interpretation of the role of local territory (the *milieu* effect) as an operator for the reduction of uncertainty thanks to three main mechanisms: a collective and socialized “transcoding” of information (technological, commercial, organizational); an easier coordination among different decision makers (private but also public) in complex projects or schemes in the frequent case in which simultaneous actions are required; and a superior control over competitors’ strategies and decisions (Camagni, 1991a). This role of the local milieu is crucial non just as a consequence of context complexity but rather as a consequence of the limitations of our cognition processes and the uncertainty of consequences that will become visible only in the future – all elements that imply the impossibility of a substantive rationality paradigm (Arrow, 1969; Simon, 1976).

This conceptualization completes the interpretation of the unescapable role of local territorial relationships, a theoretical picture developed by the GREMI that was labelled as “evolutionary regional economics” (Calafati, 2009, p. 20). As a result, in order to avoid a reductionist interpretation of the GREMI contribution, Maillat properly stated that “the *milieu* ... not a special category of localized production systems but a cognitive set on which the functioning of this system depends” (Maillat, 1998, p. 118). In the same scientific field, a similar risk of reductionism is present in the interpretation of Becattini’s scientific heritage. He is not (only) the discoverer and interpreter of the industrial districts realm (as he also was used to depict himself) nor his concept should be equated at all to that of cluster (involving simple geographical proximity): he indicated a new set of crucial resources for economic development – of a social, cultural, cognitive and identarian nature – that generate what I call the “*territorial relational surplus*”, and that are differently present in many other, real spatial organisations (Camagni, 2018), particularly in that peculiar and pervasive form of social organisation that is the city. In fact, differently from the recent trajectory of the industrial district school, the theoretical tool built by the GREMI was utilized in a wider sense for the interpretation of cultural milieus (Camagni *et al.*, 2004) and in particular the urban milieus (Camagni, 1999; Crevoisier and Camagni, 2000; Rémy, 2000; Camagni, 2004).

- 4 -

Concluding remarks

Denis Maillat has been not just a crucial partner in the collective scientific enterprise engaged by the GREMI: clear in his contributions, convinced and convincing in the definition of the subsequent steps and final goals, rigorous in his reflection logic. As I tried to show in this note, he has also played a relevant role of careful witness and synthesizer of the rich internal discussions that the group had in the different conference venues and personal homes (Paris, Neuchatel, Ascona, Monte Verità, L’Esterel, Sartène, *etc.*).

In particular, what I would like to underline here, is the sharpness by which he was able - with the help of his smart local group of younger researchers – to distinguish the GREMI's approach and achievements from those of other scholars and groups that at the same time were pursuing similar interpretive and conceptual goals. I also would like to show my appreciation for his consciousness of the value added produced, of the conceptual turn that we were contributing to realise and the pride of pushing a little further the scientific frontier about territory and innovation. A consciousness that did not come from superficiality but from a deep and careful knowledge of the relevant, evolving literature.

References

- Allen P M, Sanglier M (1979) A dynamic model of growth in a central place system. *Geographical Analysis* 11(3): 256-272.
- Arrow K J (1969) Classificatory notes on the production and transmission of technological knowledge. *The American Economic Review* 59(2): 29-35.
- Asheim B (1995) *Industrial districts as "learning regions". A condition for prosperity?* Studies in technology, innovation and economic policy (STEP) report. University of Oslo.
- Becattini G (1979) Dal settore industriale al distretto industriale. Alcune considerazioni sull'unità di indagine dell'economia industriale. *Rivista di Economia e Politica Industriale* 1: 35-48.
- Becattini G (1990) The marshallian industrial district as a docio-economic notion. In: Pyke F S, Becattini G, Sengenberger W (eds) *Industrial districts and inter-firm cooperation in Italy*. International Institute for Labour Studies, Geneva: 37-51.
- Calafati A G (2009) Macro-regions, local systems and cities: conceptualisation of territory in Italy since 1950. *Scienze Regionali/Italian Journal of Regional Science* 8(3): 11-34.
- Camagni R (1980) Teorie e modelli di localizzazione delle attività industriali. *Giornale degli Economisti e Annali di Economia* 39(3-4): 183-204.
- Camagni R (1991a) Local "milieu", uncertainty and innovation networks: towards a new dynamic theory of economic space. In: Camagni R (eds) *Innovation networks: spatial perspectives*. Belhaven Press, London: 121-144.
- Camagni R (1991b) *Innovation networks: spatial perspectives*. Belhaven Press, London.
- Camagni, R (1999) The city as a milieu: applying GREMI's approach to urban evolution. *Revue d'Économie Régionale & Urbaine*, 1999 (3) : 591-606.
- Camagni R (2004) Uncertainty, social capital and community governance: the city as a milieu. In: Capello R, Nijkamp P (eds) *Urban dynamics and growth: advances in urban economics*. Elsevier, Amsterdam: 121-152.
- Camagni R (2009) Territorial capital and regional development. In: Capello R, Nijkamp P (eds) *Handbook of regional growth and development theories*. Edward Elgar Publishing, Cheltenham: 118-132.
- Camagni R (2017) Territorial capital, competitiveness and regional development. In: Huggins R A, Thompson P (eds) *Handbook of regions and competitiveness: contemporary theories and perspectives on economic development*. Edward Elgar Publishing, Cheltenham: 232-244.
- Camagni R (2018) Becattini e l'economia territoriale: un lascito teorico da reinterpretare. In: Bellandi M, Biagi B, Faggian A, Marrocu E, Usai S (eds) *Regional development trajectories beyond the crisis/Percorsi di sviluppo regionale oltre la crisi*. Franco Angeli, Milano: 337-348.
- Camagni R, Diappi L, Leonardi G (1986) Urban growth and decline in a hierarchical system: a supply-oriented dynamic approach. *Regional Science and Urban Economics* 16(1): 145-160.
- Camagni R, Maillat D, Mattéaccioli A (2004) *Ressources naturelles et culturelles, milieux et développement local*. Éditions Économie et Société (EdES), Neuchâtel.

- Capello R (1999a) A measurement of collective learning effects in Italian high-tech milieux. *Revue d'Économie Régionale & Urbaine* 1999 (3) : 449-468.
- Capello R (1999b) Spatial transfer of knowledge in high technology milieux: learning vs. collective learning processes. *Regional Studies* 33(4): 353-365.
- Crevoisier O, Maillat D, Vasserot J-Y (1991) L'apport du milieu dans le processus d'innovation : le cas de l'Arc Jurassien. In : Maillat D, Perrin J-C (dir) *Entreprises innovatrices et réseaux locaux*. ERESA-Economica, Paris.
- Crevoisier O, Camagni R (2000) *Les milieux urbains : innovation, systèmes de production et ancrage*. Groupe de Recherche Européen sur les Milieux Innovateurs (GREMI)/Éditions Économie et Société (EdES), Neuchâtel.
- Cusinato A. (2016) A hermeneutic approach to the knowledge economy. In: Cusinato A, Philippopoulos-Mihalopoulos A (eds) *Knowledge-creating milieus in Europe: firms, cities, territories*. Springer Verlag, Berlin: 97-136.
- Dosi G (1982) Technological paradigms and technological trajectories. *Research Policy* 11(3): 147-62.
- Dosi G, Freeman C, Nelson R R, Silverberg G, Soete L (1988) *Technical change and economic theory*. Pinter Publishers, London.
- Florida R (1995) Towards the learning region. *Futures* 27(5): 527-536.
- Gaffard J-L (1986) Restructuration de l'espace économique et trajectoires technologiques. In : Aydalot P (dir.) *Milieus innovateurs en Europe*. Groupe de Recherche Européen sur les Milieux Innovateurs, Paris : 17-27.
- Gaffard J-L (1992) Territory as a specific resource: the process of construction of local systems of innovation. Seminar communication from l'Università degli Studi di Siena, March.
- Kebir L, Crevoisier O, Costa P, Peyrache-Gadeau V (2017) *Sustainable innovation and regional development: rethinking innovative milieus*. Edward Elgar Publishing, Cheltenham.
- Keeble D, Wilkinson F (2000) *High-technology clusters, networking and collective learning in Europe*. Ashgate Publishing, Aldershot.
- Lundvall B-A (1988) Innovation as an interactive process: from user producer interaction to national systems of innovation. In: Dosi G, Freeman C, Nelson R R, Silverberg G, Soete L (1988) *Technical change and economic theory*. Pinter Publishers, London: 349-369.
- Lundvall B-A, Johnson B (1994) The learning economy. *Journal of Industry Studies* 1(2): 23-42.
- Maillat D (1984) Les conditions d'une stratégie de développement par le bas : le cas de la région horlogère suisse. *Revue d'Économie Régionale & Urbaine* 1984 (2) : 257-274.
- Maillat D (1998) From the industrial district to the innovative milieu: contribution to an analysis of territorialised productive organisations. *Recherches Économiques de Louvain/Louvain Economic Review* 64 (1) : 111-129.
- Maillat D, Crevoisier O, Lecoq B (1991) Réseaux d'innovation et dynamique territoriale. Un essai de typologie. *Revue d'Économie Régionale & Urbaine* 1991 (3-4) : 407-432.
- Maillat D, Kebir L (1999) Learning region et systèmes territoriaux de production. *Revue d'Économie Régionale & Urbaine* 1999 (3) : 429-448.
- Maillat D, Lecoq B, Nemeti F, Pfister M (1995) Technology district and innovation: the case of the Swiss Jura Arc. *Regional Studies* 29(3): 251-263.
- Maillat D, Perrin J-C (1991) *Entreprises innovatrices et réseaux locaux*. ERESA-Economica, Paris.
- Maillat D, Quévit M, Senn L (1993) *Réseaux d'innovation et milieux innovateurs : un pari pour le développement régional*. Groupe de Recherche Européen sur les Milieux Innovateurs (GREMI)/Éditions Économie et Société (EdES), Neuchâtel.
- Maillat D, Vasserot J-Y (1986) Les milieux innovateurs : le cas de l'arc jurassien suisse. In : Aydalot P (dir.) *Milieus innovateurs en Europe*. Groupe de Recherche Européen sur les Milieux Innovateurs (GREMI), Paris : 217-246.
- Malmgren H B (1961) Information, expectations and the theory of the firm. *The Quarterly Journal of Economics* 75(3): 399-421.

- Morgan K (1995) *The learning region: institutions, innovation and regional renewal*. University of Wales, Cardiff.
- Nelson R R, Winter S G (1982) *An evolutionary theory of economic change*. Harvard University Press, Cambridge.
- North D C (1990) *Institutions, institutional change and economic performance*. Cambridge University Press.
- Perrin J-C (1991) Réseaux d'innovation, milieux innovateurs et développement territorial. *Revue d'Économie Régionale & Urbaine* 1991 (3-4) : 343-374.
- Perrin J Cl (1995) Apprentissage collectif, territoire et milieu innovateur : un nouveau paradigme pour le développement. In: Ferrão J (eds) *Políticas de inovação e desenvolvimento regional e local*. Edição do Instituto de Ciencias Sociais de Universidade de Lisboa. Réimpression, in : Camagni R and Maillat D (dir.) (2006) *Milieus innovateurs : théorie et politique*. Economica (Anthropos), Paris : 99-128.
- Planque B (1991) Note sur la notion de réseau d'innovation. Réseaux contractuels et réseaux « conventionnels ». *Revue d'Économie Régionale & Urbaine* 1991 (3-4) : 295-320.
- Rémy J (2000) Villes et milieux innovateurs : une matrice d'interrogations. In : Crevoisier O, Camagni R (dir.) *Les milieux urbains : innovation, systèmes de production et ancrage*. Éditions Économie et Société (EdES), Neuchâtel : 33-43.
- Simon H A (1976) From substantive to procedural rationality. In: Kastelein T J, Kuipers S K, Nijenhuis W A, Wagenaar G R (eds) *25 years of economic theory: retrospect and prospect*. Springer, Boston: 65-86.
- Williamson O E (1975), *Markets and hierarchies, analysis and antitrust implications: a study in the economics of internal organization*. The Free Press, New York.
- Williamson O E (1985) *The economic institutions of capitalism: firms, markets, relational contracting*. The Free Press, New York.
- Williamson O E (2002) The lens of contract: private ordering. *American Economic Review* 92(2): 438-453.

Notes

- 1 - Relational ties and reciprocity are the elements that were recently utilized for the relaunch of the GREMI tradition in the direction of innovations concerning demand, new consumer habits, relational goods and their impact on firms' strategies. See: Kebir *et al.* (2017).
- 2 - Papers presented at that founding conference were re-elaborated and collected in Camagni (1991b).
- 3 - The most recent interesting contribution in this sense is the hermeneutical interpretation of knowledge creation process linked to the inspirational role of "places" and "landscapes": see Cusinato (2016).