

LANDSCAPES OF PRODUCTION: AN INVESTIGATION INTO ITALIAN INDUSTRIAL CLUSTERS

Martina PERTOLDI*

**Architect, PhD candidate, Department of Urbanism, Università IUAV di Venezia,
Dorsoduro 2206, 30123, Venice, Italy, e-mail: m.pertoldi@gmail.com*

Abstract. *Landscapes of production: an investigation into Italian industrial clusters.* The world of production is still facing a *great transformation*¹, defining new roles and economic settings for different territories. Globalization and influences of global markets are usually referred to a strong dichotomy between western and emerging countries abroad, between corporation strategies and local resource exploitation. On the contrary, we propose to observe territorial transformations related to production changes within Europe; moreover, starting from peculiar places inside globalization, i.e. concentrating on Italian industrial clusters (ID) located in North-East of Italy and the ongoing related international fragmentation of outsourcing processes.

Rezumat. *Peisajele producției: o investigație asupra clusterelor industriale italiene.* Lumea producției se confruntă încă cu o *mare transformare*² definind noi roluri și setări economice pentru diferite teritorii. Globalizarea și influențele piețelor globale se referă de obicei la o puternică dihotomie între vest și țările de pretutindeni aflate în curs de dezvoltare, între strategiile societăților și exploatarea resurselor locale. Dimpotrivă, propunem observarea transformărilor teritoriale în funcție de schimbările producției din Europa; mai mult decât atât, începând de la locurile deosebite din cadrul globalizării, etc. clusterelor industriale italiene (ID) localizate în Nord-Estul Italiei și desfășurarea proceselor de externalizare legate de fragmentarea internațională.

Key-words: *industrial cluster, città diffusa, landscape, fragmentation*

Cuvinte cheie: *cluster industrial, oraș difuz, peisaj, fragmentare*

¹ Polanyi, K., 1944, *The Great Transformation*, Boston: Beacon Press

² idem



1. INTRODUCTION

Industrial districts³ define a peculiar development model that overlaps the economic sphere and must be seen as a vital expression of economics, local community and exclusive characters in terms of places potentialities (Becattini, 2000). Italian industrial clusters are highly interesting situations, not only for the economic success they have been able to produce and the economic changes they have to face now⁴, but mainly for the interaction within the specific spatial model they are part of, i.e. città diffusa (Indovina, 1990; Secchi, 2000).

Megacities and città diffusa are two extreme spatial models, two kinds of urbanization that represents a fracture with the traditional form of the city. Città diffusa, the widespread city, is the result of a continuous and autonomous process of re-use of whole parts of the city, of densification of the countryside, of minimal additions instead of all-in planning configuration. Within this gradual process of spatial innovation without fractures, the territorial matrix act as an infrastructural support on which new settlements can grow up between concentration and dispersion.

Industrial clusters are in a phase of deep transformation that make them emblematic study-cases in relation to globalization processes and cultural identity issues. These territories are today in-between fluxes and places, between threats of fast change and long time rooted peculiarities, between old and new identities. On evolution terms, the cluster paradigm is based on self-organisational processes that bring together economics and society, creating systems able to develop self regulation mechanisms in order to face highly complex and uncertain situations.

2. FRAGMENTATION OF PRODUCTION

Fragmentation of local supply chains has been a specific feature of ID self-organization since the 60s, allowing to small and medium firms to slice the whole industrial

³ Industrial districts are geographically defined production systems characterized by a high density of small and medium-sized firms that are involved in various stages of the production process in a particular industry. A main feature of IDs is a specific milieu, developed far away from the city, that includes the local institutional infrastructure (i.e. local banks, trade associations, training institutes, etc.) as well as cultural atmosphere and practices (i.e. craft traditions, trust, social integration, competition-cooperation, learning-by-doing, etc.).

A cluster is defined in the Concise Oxford Dictionary as – *'a group of similar things growing together'*. For Porter (1998):

'A cluster is a geographically proximate group of interconnected companies and associated institutions in a particular field, linked by commonalities and complementarities'.

In this paper, because of the evidence of the geographical location of the case-study, the term of industrial cluster and cluster is used as a synonymous, giving more importance to the physical characters of the territory than to the economic organization.

⁴ Italian industrial clusters extend on 20,%6 of national surface, living population is 22,1% of national population, working people employed in industry are 39,3% of the national one (Istat, 2004).

process and divide it among them. At the end of the 80s and during the 90s, ID firms increased their contacts with firms outside the local cluster area. According to Garofoli (2003), an important element in the evolution of the ID model in the 90s was the growth of outsourcing due to an unexpected increase in export: since small and medium firms could not be able to suddenly increase direct production, they fastened the reallocation of manufacturing network towards other Italian regions and abroad. Therefore, a first input to the opening of short linkages out of the granitic boundaries of the cluster were not low wages but production increment.

As pinpointed by Arndt *“fragmentation is not a new phenomenon; nor is outsourcing. Both go back to the beginning of the Industrial Revolution or even predate it. In the modern era, however, both have acquired international dimension and complexity and probably represent one of the most important distinguishing features of contemporary globalization”* (Arndt & Kierzkowski, 2001).

Nowadays, the production cycle is fragmented in different geographic locations depending on several issues related to the dimension of firms, to the type of production, to the forms in which it is carried out (export, foreign direct investments, subcontracting, etc.), (Figure 1).



Figure 1: *The Turkish Presence in the North-West of the Black Sea (1408-1713)*

As result, the emerging internationalization process highlights the transition of the industrial cluster from productive to logistics distributive platform (Corò & Micelli, 2006).

3. ITALIAN INDUSTRIAL CLUSTERS: REPRESENTATION OF A SPECIFIC SPATIAL MODEL

Direct observation not only of quantitative data but also of qualitative aspects can help to outline similarities and differences of these territories. The following observations are based on empirical research conducted in the North-east region of Italy, where a specific geography of dispersion takes place: dispersion of buildings, practices, activities into a territory more and more accessible.

The analytic frames of 6 by 12 kilometres select four situation in some ways representative of the so-called “Third Italy”(documented from the 1970s onwards in Bagnasco, 1977), that kind of industrial development characterised by small and medium enterprises and peripheral location in relation to the dense city.

During the last 40 years, a multitude of individual and minimal actions has produced deep transformations that highlight both problems and potentialities.

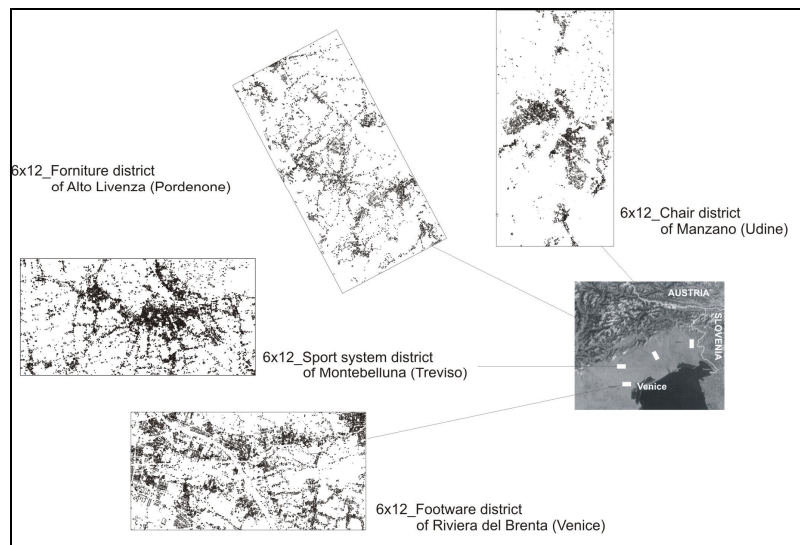


Figure 2: *Sampling of North-east Italy significant cluster situations. The pictures, obtained by isolating the layer of built-up areas on the map, show different degrees of dispersion and concentration with a scattering of building, ribbon development along the road network and clustering of small urban centres*

Common elements of these territories (Figure 2) are:

- a fine grain-texture made up by repetition of a little number of building types (e.g. single-family detached house, warehouses, house-workshop, etc.) working by a labour intensive and capital saving development;
- relation building-road as main settlement principle;
- high density of isolated industrial buildings and planned industrial areas;
- small-scale, diffused infrastructure;
- diffusive mobility mainly based on private car.

The spatial model is declined in different variations, due to the specific context and integration with other territorial situations. These territories (generally involving both industrial clusters and local systems) can be observed as a specific landscape where different materials - industries and housing, infrastructure and historical heritage, credit institutions and agriculture, give form to always different configurations.⁵

Within this gradual process of spatial innovation without fractures, the territorial matrix act as an infrastructural support on which new settlements can grow up between concentration and dispersion. A specific geography of dispersion: dispersion of buildings, practices, activities into a territory more and more accessible.

That process is strictly related to the development of a society based on the definition of a positive welfare, within a capital saving process related to a set of minimal rationalities able to re-use material and immaterial infrastructures rooted into the local habitat.

The case-study of the Chair cluster, localized around Manzano village, near the border with Slovenia, appears as the most significant because of the physical evidence of the industrial presence, the relation between dispersion and concentration within dispersion, building density, open spaces and agriculture activities still present from ancient time.

4. HISTORICAL DEVELOPMENT OF THE INDUSTRIAL CHAIR CLUSTER

The birth of the Chair cluster, as other Italian industrial clusters, comes from a progressive sedimentation of craftsmanship skills developed within rural communities since the XVI century. The chair industry, initially developed in a small village near Manzano and of secondary importance compared to the traditional rural economy, grew up thanks to the presence of forests for the raw material (wood) and the accessibility of selling markets in the North of Italy. In 1866 the Judrio river became the new border between Italy and Austrian-Hungarian Empire, with important effects on the trade because of new customs duties on products introduced by the Italian Government. In order not to pay any duties, craftsmen moved to the other side of the border, to Manzano, just few kilometres away from home, still keeping

⁵ We can describe landscape as a superposition/interaction of different layers, each one adding a degree of specification. This has a double consequence: as the territory becomes less and less “neutral”, i.e. available to the transformations, as it gets characteristics that specialize it and make it able to establish relations (plugs).

the same languages and uses. In Manzano they could find good local infrastructure and watermills to produce energy. What we suggest is that the origin of the Chair cluster depends on a former strategic delocalization and a consequent inner reorganization.

At the end of the Second World War the cluster began a 20-years long period of prosperity, developing a unique system of “factories-villages” where all the family (men, women and children) could take part into the chair production process.

During the 50s, technologic development needs gave rise to a complex supply chain, dividing the whole industry process among several different enterprises, each one generally specialized only in one operation.

Processes of delocalization took place since the 70s, requiring the development of marketing and management sectors. During the last years, from an economic point of view, the cluster has distinctly moved to a more direct approach to the final market, a better organization of the supply chain and a resizing of firms within larger groups. Strictly related to delocalization phenomena are also the efforts in creating the Hallmark of Quality and Origin, giving attention to global marketing and retail trade. Various associations and events have been created by manufacturers of the cluster to promote and support industrial production as Promosedia, Catas (quality certification and research institute) and the International Chair Exhibition.

5. 6X12 KILOMETERS INSIDE THE CHAIR CLUSTER

The methodological approach to the case-study consists of observation through:

- quantitative analysis
- zenith representation
- definition of spatial devices.

Different levels of observation can help us in better understanding mechanisms of spatial transformation.

5.1. Production-scape

The 6x12 km inner core of the cluster shows a very high ratio between population and number of firms, mostly small and medium size enterprises (about 1 firm every 22 people). With less than 1,000 companies, the cluster produces 17% of the world chair production. The cluster is now facing a long-time structural crisis due to new evolution of the market and competition by foreign competitors, mainly from Far East. Data comparison in 2002 and 2004 highlights loss of employees and production units but enlargement of firms’ size as a result of inner re-organization processes.

Graphics in “Figure 3” refer to the whole Chair industrial cluster with reference to geographical boundaries set up by Friuli Venezia Giulia Region (Regional Act 2179/1994), covering 11 municipalities on 250 square kilometers.

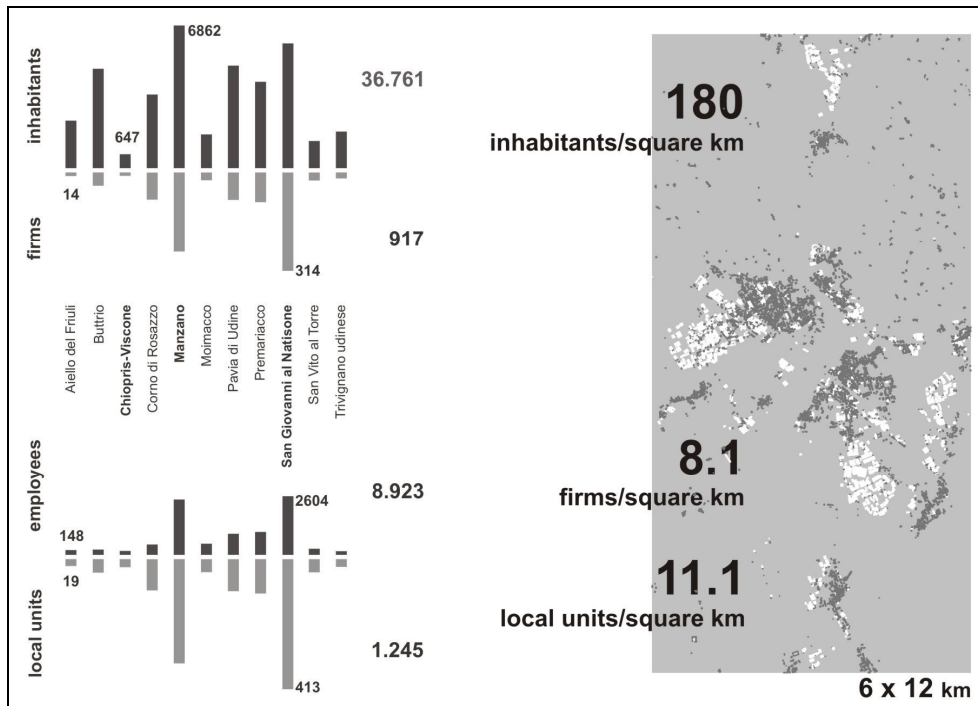


Figure 3: Data source: Camera di Commercio, *Industria, Artigianato e Agricoltura di Udine, 2004*

In the map of “Figure 3” the parts in white show productive buildings, and in dark grey other kinds of built-up areas: the empirical ratio pointed out on the map is almost 1 to 1. Besides that, the zenith observation of the territory of the Chair cluster reveals how landscape features have in some ways limited dispersion, preserving open spaces and urban settlement mesh.

5.2. Forms and materials of the territory

Since the Chair industrial cluster has been defined by means of socio-economic indicators, the research detects a portion of territory with different types of settlement, not directly identifiable as a whole. More interesting, these different urban and territorial materials seem to act in strict relation with the local society, showing a large inhabited territory that is utilized in every one of its parts.

Relations between practices and physical configurations outline spatial devices in continuous variation/definition. Spatial devices that define themselves through autonomous

aggregation principles as: linear attractors, complex buildings as catalysts of activities and fluxes, areas of repetition of similar buildings and practices, closed islands within the territory, metamorphosis and diffusive micro-transformations (Boeri, Lanzani and Marini, 1993). Physical interpretations that are in/between space and society, looking for friction marks among built environment and human population.

Looking at the main changes that affected this territory during the last 40 years, two spatial devices seem to be pervasive, although in different periods and dimension: repetition (Figure 4) and enclaves (Figure 5).

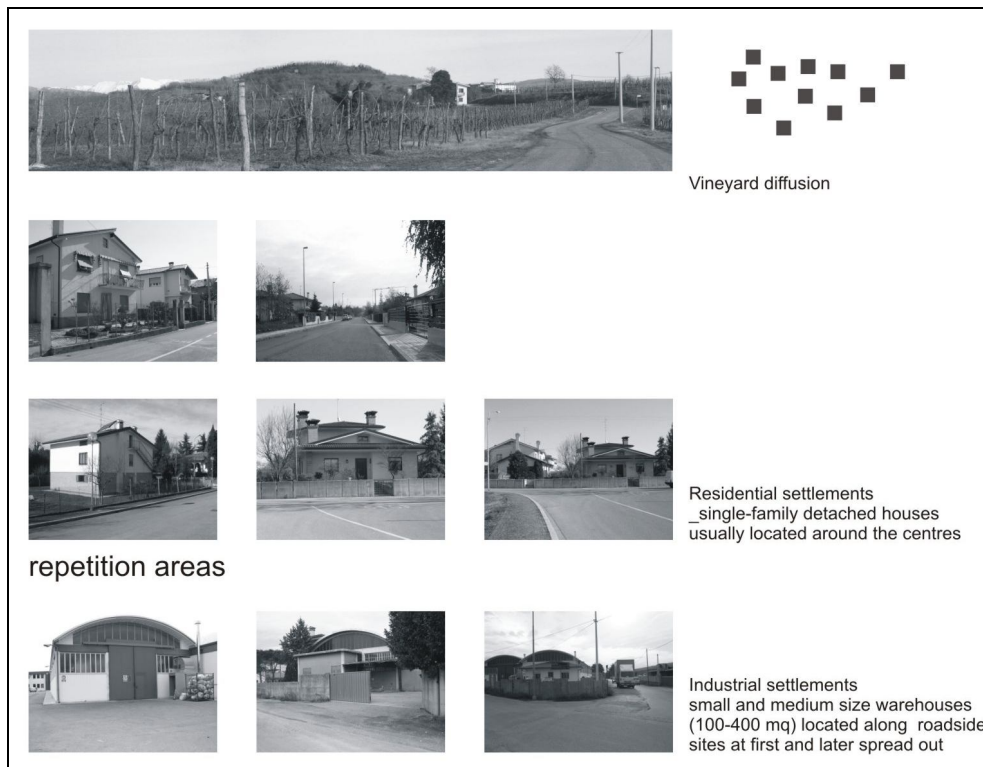


Figure 4: *Spatial devices as tools for description of territorial transformation: repetition areas*



Figure 5: *Spatial devices as tools for description of territorial transformation: enclaves*

Repetition and diffusion characterized the 60s and the 70s, the larger development phase, dealing with a fine and porous grain of the building texture and spreading out from existing built-up areas.

As spatial device, repetition is defined by its auto-organisation concept: similar objects homogeneously repeated and distributed. By repetition of single and isolated objects, following a common but not choral logic, single-family detached houses, warehouses and small workplaces built up a split three-dimensional landscape in opposition with its traditional image. A similar attitude can be observed also in relation to the agriculture spaces, in particular in the diffusion of vineyards.

During the 80s and the 90s, repetition areas were replaced by densification within existing urban areas in order to avoid waste of ground. Industrial areas were developed and expanded as specialized areas made up of modular buildings, closed and separated from the context. Residential development abandoned the single villa to develop large and medium scale

projects. Still maintaining these features today, the Chair cluster can be defined as a territory of separated islands, organized by enclave principles: similar objects arranged by programmatic repetition within a delimited area, isolated and distinct from the context, usually by fences.

Morphologic descriptions based on cartography show the permanence of long term polycentric urban frameworks depending from ancient organization of agriculture, and the coagulation of new development along the main infrastructural axis. Within the context, concentration and dispersion are not in opposition, giving form to a hybrid model of polarization based on the historical road network: the traditional frameworks of small villages act as a support for the addition of single fragments.

In particular, the most evident phenomenon is the generation of a “mirror image system” from villages to industrial planned areas (still evident in Figure 3).

Today, with relocation and delocalization of plants, this distinctive urban system can represent an occasion for diffused re-conversion and re-qualification of small centres.

6. CONCLUSIONS

Looking at the past, it can be said that these territories represented a strategic resource for the production, an exclusive good in the use, a shared element of belonging and identity, but not a public good.

What do these territories and landscapes are today?

We refer to landscape in order to underline the importance of both the physical form of the territory and the cultural and historical process, in relation to the concept that the identity of a culture is also represented in its morphology. According to the Landscape European Convention (2000), landscape means an area, as perceived by people, whose character is the result of the action and interaction of natural and/or human factors. This definition points out the strict relation between landscape and society and allows us to consider landscape as a representation of social interactions with the territory. Therefore, it is possible to think about landscape as social infrastructure. In fact, infrastructure is what allows and facilitates the continuance of social reproduction, i.e. the pursuit and development of production activities and social practices (Viganò, 2001).

In the case of the Chair cluster, some specific elements of the landscape worked as natural barriers for new development: besides orography and idrography; whose role was quite obvious, vineyards have not been penetrated by buildings, putting up a resistance to settlement dispersion. Moreover, vineyards extension has significantly grown, mostly on the hills, and many rural constructions have been restored both for wine production and leisure time. In particular, extensive re-use of old buildings for holiday farms has produced a radical transformation of practices, attracting people from closer urban centres.

Elements of resistance represent not only opposition to change, but also a signal of cultural identity, making possible to recognize differences and values of choices. So, transformation drives can be seen as catalyst elements for fostering cultural identity.

With the help of qualitative analysis like interviews and direct interaction with residents, it is possible to outline common images but still unable to produce a coherent sense-making representation. Observation of everyday life shows how people organize their routes through “functional landscapes” (Lanzani, 2003) responding to individual needs. Still, what comes out from interviews is an increasing demand of better quality of life, also in relation to environment and landscape features.

It seems today urgent to be reinvesting into a new relation between production and territory and to work on the definition of a new accordance (Descombes, 2006) between population and landscape.

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