Resilience and the role of arts and culture-based activities in mature industrial districts

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Abstract

In this paper, we build on the results of previous research on how industrial districts (IDs) well-endowed with innovation capabilities may fall down and sometimes react against lock-in conditions. A more or less constantly increasing challenge coming from external competitive systems eventually brings about crises in IDs stuck into the cognitive core and institutional frames which have featured their past growth. Renewed development paths demand a non-incremental adaptation both in the local configuration of nuclei of productive know-how and in its integration and effective organization. Conditions of cognitive or institutional lock-in may hinder or slow-down a successful reaction, corresponding to low resilience cases, but lock-ins may be avoided or overcome by the activation and integration of a multiplicity of secondary know-how nuclei. The present paper introduces some conceptualisations related to resilience and recovery in mature IDs, and aims at exploring the roles of the cultural backgrounds and the possible activation of arts and culture-based activities. Their growth may not only be a source of new local business and jobs, but also a key contribution to the upgrading of the district institutional frame within globalised production and social networks. This provisional result will be the subject of future empirical research.

Keywords: Cultural Heritage, Mature Industrial District, Lock-in, Resilience, Cultural enhancement of local development.

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1. Introduction

This paper proposes a view on the dynamical capacities of Industrial Districts (IDs), looking in particular at relations between culture and mature IDs. Idiosyncratic cultural factors embedded in the history of territories have helped the emergence and success of many IDs in the second half of the XX century, against the globalist social and organisational culture dominated by big Fordist companies and world cities (Becattini, 2000; Scott, 1997). However, the initial strengths may turn into barriers to innovation when the IDs meet the necessity of non-gradual changes. This is what a recent stream of literature has highlighted, considering the great challenges brought by the contemporary phase of globalisation to mature industrial areas, including old ID champions in industrialised countries\(^1\). Different models of local development, related to urban environments and international networks, would have a higher capacity to confront such challenges.

Actually, it is easy to recognise that mature IDs often have high adaptation capacities and lower adaptability. A non-gradual change is a complex process, in particular for a socio-cultural entity defined by a specialised productive core emerged from the place and from the community of people. However, possibilities and cases of recovery and even resilience should not be ignored (Bellandi, 2011). We try in what follows to explore this issue, presenting a series of conceptual frames that connect it to the cultural dimensions of IDs in terms of inertia and lock-in, but also as development opportunities, activities and outputs.

Section 2 introduces a conceptualisation on the cultural factors embedded in the history of the IDs\(^2\), finding a useful field of comparison and reflection in the recent literature on the concepts of “cultural districts”. Section 3 considers different visions about the social fabric of an ID. They lay essentially on the identification of different relations with the cultural background, and have significant effects on the definition and articulation of some concepts relevant to the understanding of ID development, lock-in, possibilities of recovery and resilience. We illustrate here a formal representation of the ID’s productive structure, and discuss the balances between adaptation and adaptability as well as the culmination of IDs’ developmental paths into maturity conditions. If the cultural background of an ID plays always a crucial role in either promoting innovation and growth or taking to inertia and lock-in, the resulting paths are not univocally determined. To illustrate the point in general terms, Section 4 bring in diversity in ideal-typical ID paths of development. The different forms feature different balances between adaptation and adaptability and take to different types of ID maturity. Section 5 argues about the support offered by arts and culture-based activities to mature IDs hit by increasing competitive challenges or structural shocks. Section 6 offers some concluding remarks.

2. The ID as a cultural district

This Section hosts a set of arguments that connect the IDs to some features of the so-called “cultural” districts.

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\(^1\) See on regional studies and economic geography literature: Grabher (1993); Boschma (2015); Hassink (2010).

\(^2\) As Marshall remembered: “the past lives on for ages after it has been lost from memory; and the most progressive peoples retain much of the substance of earlier habits of associated action in industry and in trade” (Marshall, 1919, p. 6).
Concerning the IDs, we assume here that they correspond to empirical cases of a specific class of models of local development. In this class, a place features a socio-cultural and industrial identity that promotes local processes of diffused entrepreneurship and circulation of business and technological ideas in a population of SMEs, in addition to trust applied to trade and specialisation, and social cohesion favourable to investments in training and skill-development (Becattini, 2000).

In a recent re-statement, Giacomo Becattini\(^3\) (2015) writes about “productive chorality” of a place. It would be “based not only on the technical, spatial and cultural proximity of the firms, but also, and more so, on the strength of the uniformity and congruity of the culture of the people and families who live there” (p. 36). Such chorality would be constituted “by a thousand institutional figures (ranging from families to firms to local government to religious rituals, and more) and by «cultural» entities (e.g. para-productive institutions, social care provision, sports activities, and more), the total making up a cultural background (in the anthropological sense), from which depend, and on which are also projected, people’s individual decisions, including economic ones” (idem).

The “anthropological sense” of the cultural background points specifically to the accumulation of a peculiar intangible cultural heritage, giving an identity to the place, in terms of traditions of productive know-how, trade of commercial goods, and care of common goods within the place, together with related jargons, symbols, rituals, norms, values, and inherited institutional frameworks\(^4\). While “uniformity and congruity of the culture” refer more specifically to the idea that the variety of personal tracts and experiences, unavoidable and even necessary to the vitality of the place, does not fragment the identity of the place. Fragmentation may take various forms- For example, the individuals may adhere to separated local cliques, or contribute only to local nodes of placeless networks.

In periods of prolonged development (see Section 4), IDs are proto-topical examples of places with a productive chorality, since their cultural background expresses into – and is reproduced by the effects of – a large variety of interconnected projects of life, bridging the social life of the place to the local success of a specialised field of business and work. While the lively exchange of experiences within and around such delimited field helps against fragmentation, balancing localist tendencies (from the continuous thickening of local institutions), centrifugal tendencies (from the openness to extra-local networks), and disruptive tendencies (from the absorption of innovation).

Definitions of the so-called “cultural districts”, which include many types and cases, take often the ID, the Marshallian industrial atmosphere, the localised population of SMEs, etc., as a guide\(^5\). Some literature extends the application to cases involving delimited parts or sections of a place, as the cultural quarters of a city or

\(^3\)Becattini started with a paper in 1979 the re-introduction of the concept of ID, recovering it from Alfred Marshall’s writings. See Becattini (2000).

\(^4\)An expression of such common heritage in an ID is what Marshall (1919) referred to as an “industrial atmosphere”, talking about skill-development (contributing to personal and human capital). Other expressions concern trust and social credit (contributing to what is meant today as social capital), and the social support to entrepreneurial attitudes and self-help (nowadays, entrepreneurial capital). See Casson (2006).

various thematic cultural clusters\textsuperscript{6}. Lazzeretti (2009) proposes a bridging concept i.e. the “cultural
districtualisation”, pointing to processes by which a qualified (“high”) presence of a cultural cluster interacts
virtuously with a large local endowment of cultural resources, giving support to local development both
directly (economic enhancement of culture) and indirectly (creativity, innovation, authenticity, identity).
Sacco et al. (2013) suggest a definition of the cultural district that summaries many previous concepts. It
refers to places “in which easy and continued access to cultural opportunities fosters innovative thinking and
social cooperation” (p. 590). Here, the cultural heritage relates to various processes of local development
thanks to the cultural opportunities it may spawn. Cultural heritage is considered in all its dimension:
artworks, artefacts, historical buildings and countryside, literature, music and other enduring results of
performing arts, science, and the stock of the aforementioned local traditions, etc. (Throsby, 1997). The
related cultural opportunities include the exchange of experiences and ideas within non-art &culture
production fields, but typically extends to the co-production\textsuperscript{7} and enjoyment of artworks, authentic artisanship,
performing arts, festivals, etc., that is arts and culture-based activities with the possible complement of
tourism, residential, logistic, and communication services.

Places characterised by a productive chorality, IDs in particular, are “cultural districts”, at least in a
restricted sense. Here the cultural heritage may just concern a core part of local traditions; and cultural
opportunities may just refer to the exploitation of such traditions as a basis for exchange of products, skill
formation, and innovation within a population of specialised SMEs, as well as for the local identity of the
place. Santagata (2002) identifies enhanced cultural functions in many contemporary Italian IDs. For example,
some specialise either in fashion products with a high intensity of artisanship or in design products with
important inputs from creative professionals; other specialise in food products related to local eno-
gastronomic traditions and protected by territorial or collective property rights. Of course, not all the cultural
districts are IDs, though incorporating district-like processes, as in cases of places with a significant material
cultural and landscape heritage and an economic specialisation led by tourism clusters. Furthermore, there are
many cases in which cultural and creative clusters localised in quarters within large cities or metropolitan
areas present district processes as well (Cooke, 2008), like the celebrated case of the Hollywood movie
industry (Scott, 1997).

3. IDs as communities or as local societies
The definitions above on IDs as places of productive chorality and cultural districts host a subtle but important
diversity in both real world cases and models of interpretation. The people of the ID, and specifically its
producers, may be seen as either a “community” (Becattini, 2000; Dei Ottati, 1994) or a “local society”
(Trigilia, 2001; Bellandi, 1996). According to the first vision, in understanding the systemic development, the
factors of variety play a secondary role in comparison to the adhesion to the common heritage. In the “local
society” vision, instead, the factors of variety organise themselves within a multiplicity of nuclei of productive

\textsuperscript{6} See for example Cinti (2008, p. 88) for a review.

\textsuperscript{7} Including restauration, conservation, historical understanding and cultural mapping. See for example Fioravanti and
Mecca (2011).
know-how. The common heritage plays as a shared focal point promoting a cloud of “weak ties” (Granovetter, 1973); and, together with the local density of institutions and communication channels typical of compact centres of industrial life (Marshall, 1919, p. 287), supports trade, project conversation, and mobility among the local nuclei, as well as networking with external agents.

In the next Section, we will introduce a general representation of three different forms of ID development paths, based on the two visions, where the cultural background plays in different ways.

Before coming to that, we need to consider some other preliminary concepts that allow specifying the dynamic factors and performances on which the representations will focus.

3.1. The cognitive core and the institutional frame in different IDs

The first consideration starts again from the general concept of the ID’s production structure. Following the Marshallian tradition, it is characterised by a set of connected manufacturing and tertiary activities where several specialised firms, largely local, micro-to-medium sized, and independent, generate complementary and substitutive products and services. Some products are sold on external markets and define the industrial image and the economic standing of the place. Generally, though it is not a logical necessity, such products correspond also to the statistical sectors of main specialisation of the ID. However, the ID as a place hosts a various array of productive activities, more or less related to the sectors of the main specialisation. Some just provide services for the local population. Others correspond to secondary industries, characterised by products or services also for external markets, and seemingly not or weakly related to the sectors of the main specialisation.

The specialised firms within the sectors of the main specialisation typically interact locally by way of both market and non-market institutions realising increasing returns as combinations of firms’ internal economies and district’s external economies. The skills and the productive knowledge they incorporate may be seen as the “cognitive core” of an ID; while the institutions supporting the organisation of the cognitive core transactions are expression of the ID’s institutional frame. Within the “community” vision, such frame mainly focuses on the support to the core. As seen in Section 2, in each period the cognitive core and the district institutional frame correspond to the main structural components of its cultural background.

The “local society” vision takes to identify specific “nuclei of productive know-how” within the cognitive core (Bellandi, 1996). The single nucleus refers to a field of specialised activity that is relatively homogenous in terms of knowledge, practices, and actors, also enjoying from the support of specialised parts of the institutional frame. A certain degree of cognitive and cultural proximity between the nuclei of the core allows trust, co-learning, absorption of external knowledge, and “decentralised industrial creativity”, which are just the focus of the “community” vision. What is more specific of the “local society” vision are some

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8 Introducing the “local labour market areas” (LLMAs) as the appropriate unit of analysis to identify the district area, Sforzi (2009) stressed that “what actually constitutes an LLMA is the working and living community, rather than businesses or industries” (p. 328).
9 The organisation is based on local markets, open teams, and specific public goods (Bellandi, 2009).
10 I.e. collective processes of learning and knowledge generation. This is assimilated to the “DUI-mode of learning”. See Jensen, Johnson, Lorenz, and Lundvall (2007).
outcomes of the interaction between the nuclei, together with the interaction with exogenous forces. They can not only carry to innovations among the same nuclei, but also to spawn new complementary nuclei contributing to the inner differentiation of the traditional core. Others contribute to grow nuclei of old or new secondary industries that have no or just weak relations with the traditional core, to strengthen the access to autonomous markets for products of nuclei complementary to the traditional core, and to local services as well.

3.2. Adaptation and adaptability

The second consideration concerns the idea that different combinations of adaptation and adaptability resources and mechanisms characterise different ID developmental paths (Martin and Sunley, 2015; Boschma, 2015). As already suggested in the introduction, “adaptation” refers to the systemic capability to adopt incremental variations in production, products, and trade solutions within a given frame of markets and technologies characterised by a certain degree of variability. Such capability includes in particular flexibility of production processes, quality of products, time to markets, and incorporation of innovative solutions within the frame. While “adaptability” is the capability of the system to absorb unexpected downturns and, more importantly, to react (appropriately) fast to continuously increasing competitive challenges or even to structural shocks and branch out in new paths of development. The literature has pointed out that adaptation and adaptability often are negatively correlated in old industrial areas (Grabher, 1993).

A system may both enjoy a high degree of adaptation capacity and be prone to fall in lock-in conditions. Lock-in refers precisely to the inability of the system to leave old organisational solutions when needed by structural changes in the social and economic environment. Local economy could be destabilised by policy changes, both national and local, recessions, currency crises, change of technological paradigm, and increasing competitors’ pressure. According to some authors, the ideal-typical model of IDs, i.e. the Marshallian Industrial District (MID)12, would illustrate precisely such trade-off. The ID processes would promote a spiralling increase of the local articulation of specialised activities within a delimited industrial field. This is adaptation, and strengthens progressively the adaptation capacities of the ID. On the other side, path dependence would be a probable outcome in systems characterised by both the accumulation of tacit knowledge within a delimited business field and the reduced external links kept by small local manufacturing firms (Visser and Boschma, 2004).

However, there are also cases where adaptation and adaptability are not negatively correlated, and this quality is the so-called “resilience”13. In particular, innovative or creative cities and districts would boast

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11 Absorption means to avoid prolonged difficulties in terms of unemployment, negative business demography, falls in GDP, etc. See Martin and Sunley (2015).
12 Becattini introduced explicitly this concept in 1990. It is an ideal typical form of ID, characterised by auto-reproductive processes concerning the local division of labour and the high levels of endogenous capitals, decentralisation in business organisation, and local specialisation in a specific industrial field. See Becattini (2000). Such definition actually hosts lot of variations. See also Cooke (2009).
high degrees of resilience\textsuperscript{14}.

The next two Sections will discuss the possibility of resilience or recovery in IDs in relation to different types of social structure and cultural backgrounds, forms of development, and possibilities of triggering arts and culture opportunities. Before, we have to introduce more explicitly the concept of mature IDs, which are the more direct object of interest in this paper, both because of the stronger weight of the industrial cultural legacy, and the not yet well defined, in general terms, potential activation of arts and culture opportunities.

### 3.3. Mature IDs

It is obvious that every ID, after a more or less prolonged period of development (combined with short run oscillations), may meet a higher challenge that raises the risks of a deep crisis. If the ID does not react promptly a decline begins, and if the decline does not stop such ID may disappear as a form of industrial organisation and development of the place. It has happened in the past, and will happen again. Already Alfred Marshall in (1919) hinted at such possibilities (pp. 287-288). A distinction helps in discerning the sets of conditions spawning an effective reaction or bringing about a phase of decline.

On one side, the causes concern what recalled above at the end of the previous sub-section, i.e. the growing of inertia or path dependence as the result of a period of development. On the other side, the causes pertain to general changes in technological, market, and social paradigms, unleashing a wide reduction of competitive opportunities for ID forms of industrial organisation and development. The first set falls under a heading such as “maturity and stagnation” in an ID\textsuperscript{15}. The second set of causes, apart from pessimistic views about the supposed inherent weaknesses of the ID “model”, concerns historical cycles and waves in the global economic and social order.

The empirical difficulty in discernment comes from the fact that the global order is always in flux, generating challenges that hit in different ways complex organisations, according to their nature and age. For example, some old IDs that went up to industrial leadership between the 1970s and the 1990s have met in the last decade prolonged crises in face of the contemporary phase of globalisation and the recent financial and political shocks. Is that a problem of maturity of those IDs, leading to lowered flexibility and systemic adaptability, and thus to lock-in conditions against such challenges (Hassink, 2010)? Is it instead the presage of a doomsday for great part of the IDs, hitting first some types, e.g. according not only to age, but also to sectors and regions? Or else, is it the manifestation of new qualities that successful paths of ID development have to incorporate, summing up but not reducing to problems of maturity (Bellandi & De Propris, 2015)?

We focus here and in the next Section to maturity conditions and problems. Section 5 will introduce also some issues related to present-days challenges.

Not all IDs are able to get to maturity, just because they decline or transform quite early after their birth. Mature IDs result from trajectories of sustained development preserving some general features (in particular concerning the cognitive core and the adaptation of the institutional frame to the core) along years and decades (Bellandi, 2011). It is useful to distinguish between \textit{nature} and \textit{effects} of ID maturity.

\textsuperscript{14} See for example on the recent economic geography literature: Martin and Sunley (2015); Boschma (2015).
\textsuperscript{15} This not casually borrows from Steindl (1952).
The nature has to do with the stabilisation of the relational context among the main agents within the cognitive core and the supporting institutional agencies, combined with a relatively high articulation of the local division of labour. Stabilisation means that all the ties that can bring information, ideas, and reciprocity between such actors are well established, and constitute a dense network. Concerning the effects, stabilisation is consistent with a relatively high level of adaptation capacities in terms of productivity, quality of products, and flexibility outcomes. What about adaptability? At least four effects combine here. Firstly, after a while, opportunities for new ideas and major innovations decrease within the network. Secondly, the lack of novelties within the network implicates a low probability of challenges to local business, technical, and political leaderships, and this favours the formation of oligarchies, entrenched cultural habits, and rigid institutional routines. Thirdly, the complexity of the local division of labour and the decentralised business organisation of an ID increase the difficulty for new entrepreneurs to branch out from traditional coordinated solutions within the population of small firms. Fourthly, the strength of the previous effects depends also on the quality of the cloud of opportunities of external weaker ties that the core actors maintain; if the quality is poor, in terms of potentiality for bridging with new information, ideas, reciprocity, the tendency to inertia and path dependence is strong. A prolonged maturity actually is not even consistent with a state of development, and not only because of the increasing weakness against external challenges. Oligarchies and close cliques fragment local cultural identity and social cohesion, deteriorating the productive chorality of the ID.

The just sketched framework of evolving characters and effects is perfectly consistent with the “local society” vision. It is quite a different story under the “community” vision. The stabilisation of the inner relational context is presupposed all along a period of sustained development, after the emergence of the ID. Entrepreneurial and trust attitudes and values interwoven within the local cultural background and identity counteract the possible detrimental effects of stabilisation. In a sense, here, an ID is always mature without the defects of maturity. Decline comes if and when the community loses its identity.

We are now going to argue that the IDs’ mechanisms and resources (even from MID premises) can have diverse evolving balances between adaptation and adaptability along different paths of development, relying on various types of legacies. Different forms of maturity with various qualities in terms of risks of lock-in, resilience, recovery are identified under the “local society” vision of the ID.

4. Forms of ID development, ID maturity, and the role of the cultural background

The identification of an ideal-typical form of IDs development is a shared field of the two visions of productive chorality of IDs, i.e. the community and the local society, though they propose a different view of

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16 That is, strong ties, bridging ties, and lack of structural holes characterise the network. See Granovetter (1973), Burt (1992), McEvily and Zaheer (1999).
17 It is a question of both excessive cognitive proximity and lack of unexplored heterogeneity. The localised knowledge within each nucleus of know-how is not vivified by new combinatorial possibilities (Antonelli, 1999).
18 See Strambach and Klement (2012) for an explorative analysis about the role of the institutional context and industrial structure in defining forms of regional industrial path development.
19 This resounds Steindl on oligopolistic dominance as the result of maturity and bringing to stagnation. See note 15.
20 The same Becattini (2000) suggests the importance of the polycentric characters in ID development.
its inner nature. We call it a “quasi-steady state” path of development, where the continuous proliferation of specialised firms, the differentiation of products, and the growth of employment and income are consistent with the preservation of some constant structural features (Dardi, 2009). Furthermore, the two visions host different polar variants, the community type extending to what we call the “stationary state”; and the local society type extending to “quasi-steady states with robust transition” capacities.

The three forms of path of ID development, which we are going to introduce, exemplify different dynamics concerning the density of interaction within the core, the spawning of new nuclei, the possible transformation of both the core and the institutional frame, the balances between adaptation and adaptability, the characters and effects that maturity may take, and the roles of culture.

4.1. Quasi-steady state and delayed maturity

The “community” and the “local society” visions converge on the general characters of the ideal-typical form of development in IDs, but give a partially diverging interpretation to its nature. According to the first vision, trade, skill formation, and decentralised industrial creativity within the productive core, supported by the institutional frame of the place, drive productivity, innovation and business success on external markets, and allow the economic and social reproduction of the core. Successful innovation, with the slow spawning of new specialisations, supports gradual differentiation processes within the core. This increases almost automatically, thanks to pro-active institutions, the possibility of new cognitive combinations, entrepreneurial co-operation, and appropriate institutional support (Dei Ottati, 2009). According to the “local society” vision, the same dynamics is structured by the multiplicity of nuclei of know-how within the core.

The development path thus exemplifies continuity of growth based on a constant structure – the “steady state”\(^{21}\) –, i.e. the inherited productive identity of the locality expressed by the traditional cognitive core. Gradual change (the “quasi” qualification) refers to the slow spawning of new specialisations that increase the inner differentiation of the core with new products and services, without superseding the presence and prevalence of the traditional cognitive core’s productions\(^{22}\).

Within the “local society” vision, the inclusion of new specialisations within the cognitive core is a complex process: it involves the structuration of new nuclei of know-how, keeping weak relations with the nuclei of the core. In due time\(^{23}\), some among such relations become stronger, and new nuclei enter the core thanks to the expansion of the institutional frame. Furthermore, the inclusion of the new nuclei plays a critical role in avoiding the social and cognitive crystallisation of the traditional productive structure. Without such sources of novelty, the possibilities of new creative combinations tend to be early exhausted and the formation

\(^{21}\)The “steady state” is a notion explored and discussed in depth in the theory of economic growth (see for example Daly, 1973). In this paper, the steady state refers to conditions of balanced growth in terms of continuous presence of a set of know-how nuclei within the ID cognitive core supported by the institutional and cultural frame.

\(^{22}\)A possible measure of the quasi-steady state is presented in Santini (2016). A longitudinal analysis of ID changes defines the nuclei number: new nuclei possibly related to the traditional ones emerge, but the concentration of entrepreneurs within the nuclei of the core with respect to non-core nuclei does not change (e.g. the normalised entropy index is almost constant: \(\text{NorEn} \cong 0\)). Relative changes within the core are contemplated.

\(^{23}\)The maturity and resilience concepts are strongly related to the time frame which defines the granularity of the evolutionary analysis. A deeper analysis of the point is deferred.
of oligarchies entrenched into the given structure of the core is more likely. It is the growth and action of the so-called complementary multiplicity (Bellandi, 1996)\textsuperscript{24}. The ID here is a complex adaptive system (Lombardi, 2003) where adaptation and adaptability do not correlate positively when non-gradual changes are in needs. The spawning and inclusion of new nuclei taking important novelties to the relational set of the traditional nuclei of the core are only gradual. These processes tend to slow down further along the path, because of the increasing weight of the capital sunk in the established relations\textsuperscript{25}. Therefore, maturity is delayed, not avoided and it is what we call “delayed maturity”.

The system may fall down in lock-in conditions when it is within or close to maturity conditions, but lock-out is possible and deliberate multi-level system policies of renewal could help recovery (Bellandi and Caloffi, 2016).

4.2. Stationary state and precocious maturity

Another form of developmental path, appearing as an extreme variant of the community vision, refers to cases of very slow change in the cognitive core and in the institutional frame, like maybe some IDs that are specialised in products incorporating protected local traditions. In the theoretical case of no change, it is a stationary state: the core reproduces along the time, and the operation of the normal district processes would assure none-the-less the economic and social sustainability of the system, even if no new local specialisations emerge adding to the traditional core. According to the “local society” vision instead, such path of development would meet “precocious maturity” and increasing risks of poor innovation performances. The system is not able to spawn new nuclei of know-how, or the institutional inertia around the traditional core blocks the inclusion of new nuclei. The adaptability is low also in the long run. It was not for external resources and protections, the ID would easily fall in cognitive or institutional lock-in conditions (Santini, 2016). It is true that, under the “community” vision, some cases of highly resilient traditional IDs could be understood as the result of a culture rewarding individual sacrifice and initiative in succour of collective difficulties. However, resilience here would concern more the resistance to transitory economic downturns than the capacity to generate new paths of development (Martin & Sunley, 2015).

4.3. Quasi-steady state with robust transition capacities and dynamic maturity

The “local society” vision is consistent also with a form of ID development featuring general resilience qualities. It is similar to the quasi-steady state with gradual change, but for the incorporation of robust transition capacities (Martin & Sunley, 2015), and impinges on the cognitive, institutional and cultural variety of the place as a whole. The transition capacities set off in presence of competitive crises or structural shocks in the social and environmental context, hitting deeply the main productions, and asking non-gradual changes.

\textsuperscript{24} This is quite close to the concept of related variety (Frenken, Van Oort, and Verburg, 2007) even if here there is not a strict distinction between Marshallian and Jacobian externalities.

\textsuperscript{25} Such effects may be stronger or weaker according also to the interferences of both the evolution of the technological paradigms to which the traditional core impinges and the local cycles in political leaderships, in turnover within entrepreneurs’ teams, and in quality and intensity of migrations. Such interferences may be seen also as causes of challenges and shocks.
Some mechanisms and resources accumulated along an ID path of persistent development (ideally, a quasi-steady state) have a latent nature that may emerge in face of the above-mentioned difficulties and support robust transition capacities. Mechanisms and resources include: a) secondary nuclei of know-how ready to exploit windows of growth; b) redundancy of technical and human resources within the traditional cognitive core, which the growth of secondary nuclei can absorb; c) attitudes towards Schumpeterian industrial or political leadership, triggering plasticity in the institutional frame and transformation of the cognitive core; d) insertion of a set of local business and policy actors within multi-territorial networks able to support a stronger access to markets, funding, and external knowledge necessary to the growth of secondary nuclei.

When such resources and mechanisms are activated, the multiplicity of nuclei of know-how, extending also outside the traditional core, plays a substitutive function ("replacement multiplicity") with respect to the declining traditional core. A new cognitive core is spawn, including new nuclei and possibly absorbing a part of the traditional core. Their successful activation corresponds to an interruption of a quasi-steady state path, and may lead the ID along the “traverse” to a new path of development, possibly but not necessarily a new ID quasi-steady state path.

If robust transition capacities are accumulated, the ID quasi-steady state path is potentially consistent with high levels of both adaptation and the adaptability, i.e. resilience. Maturity has an instable status; we call it "dynamic maturity". Before or without the unleashing of transition, it is similar to a delayed maturity. When the ID, in face of a challenge or shock asking a non-gradual change, takes a traverse successfully, the outcome is the “de-maturing” of the system, even if the outcome may be a place with non-ID features (Bellandi, 2011).

In plenty of historical cases, IDs have been able to change their path. Quite typical is the change from a dominant specialisation in final products or components to the specialisation in related machinery and tools industries, originally grown as auxiliary activities within the ID, and thereafter as complementary industries. Here, the nuclei of mechanical and engineering know-how were included in the core, but were growing also their own external markets, the capacity to absorb redundant resources from the crisis of the traditional core, and to promote the modification of the institutional frame. Another possibility is that the powerful activation of multiplicity takes to a more diversified if not fragmented path of development, quite different from ID models.

On the other side, the resources and mechanisms supporting transition capacities, even when accumulated, are not always timely and effectively activated. Lots of internal trade-off may interfere. In that case, the ID is the same as an ID in delayed maturity, and it enters a lock-in phase.

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26 The problem of the “traverse” is an important topic within the theory of economic growth. See, for example, Bewley (1982).

27 On redundancy and adaptability, see Grabher (1993); on institutional plasticity see Strambach and Klement (2012); on a synthetic view connecting such concepts to related and unrelated variety see Boschma (2015). Bellandi (1996) and (2009) apply concepts on redundancy and local leadership to replacement multiplicity mechanisms in IDs and the organisation of discontinuous change, including the adjustment in the architecture of specific public goods. Bellandi and De Propris (2015) and Bellandi and Caloffi (2016) extend to multi-territorial networks and policies within a neo-Marshallian perspective.

28 See examples in many chapters of Becattini, Bellandi, and De Propris (2009), in particular in Sections 1, 5, 7, 8, 10.
5. Arts and culture-based activities as lever of development in mature IDs

Building on concepts illustrated in Sections 3 and 4, we come now to the relations of IDs in a dynamic perspective (development paths, maturity, lock-in, resilience and recovery) and their cultural and social constitution (productive chorality, cultural backgrounds, community or local society), with arts and culture-based activities, cultural districts’ processes, and place-based cultural policies just sketched in Section 2. We consider two related propositions and one exemplification:

a) the cultural backgrounds of mature IDs, though often sources of inertia, may support the cultural enhancement of productions in their cognitive cores and increase complementary multiplicity;

b) resilience or recovery from lock-in in mature IDs may be helped by a large and systematic mobilisation of cultural backgrounds in terms of arts and culture-based activities, strengthening new nuclei of replacement multiplicity, but also untying the cultural backgrounds from an exclusive relation with a declining traditional cognitive core, and promoting plasticity in the institutional frame;

c) the rich cultural and landscape heritage in Italy together with the traditions of local welfare could be played in deliberate multi-level system policies, promoting regional and national platforms that help new or renewed paths of local development enhanced by arts and culture and by social innovation.

5.1 The cultural enhancement of the cognitive cores in mature IDs

As argued above, the more the cultural background of a mature ID is tied to its core nuclei of know-how, the higher is the risk of cognitive or institutional lock-in. On the other side, there are direct effects on local products and image to be considered.

Firstly, the cultural background may be a source of historical anchoring for the typical products of an ID, as in cases of IDs that are clearly acknowledged as cultural districts. The traditional manufacturing sectors increase the competitiveness of their goods thanks to the combination of specialised productive knowledge and the style and esthetical attitudes of the local community. This cultural enhancement of products (Lazzeretti, 2009) is a source of authenticity, perceived original quality, emotional content, therefore of high valued product differentiation. We have already recalled in 2 and in 4.2 that in some cases the same products of an ID come directly from the contemporary interpretation of local traditional products or even from traditional processes.

Secondly, sets of specialists in design, communication, historical contextualisation, training in old crafts, exhibitions or company museums and tours opening the factory’s doors, etc. grow at the service to the same processes of cultural enhancement of the typical products of the ID. Along the time, these processes may embed in the ID and spawn new complementary nuclei of know-how, bringing variation within the same cultural background.

Therefore, the cultural resources may contribute to processes of both stationary and quasi-steady state development. However, they are not the natural outcome of whatever cultural background. For example, the tying of local products to authenticity, as the peculiar local interpretation of human values of truth, beauty, justice (ICOMOS, 2014), is plausibly the expression of something like the productive chorality discussed in
Section 2. Furthermore, the global consumers have to be educated to the evaluation of authenticity, cultural experience, and historical anchoring (Kebir & Crevoisier, 2008); while the cultural background and identity have to be preserved (see Lazzeretti & Capone, 2015), sometimes also with the help of collective property rights (Santagata, 2002, p. 12).

IDs in precocious maturity are not able to promote such processes anew; but for random effects or for state norms protecting traditional productions (and similar provisions) that allow to open to some opportunities, at least for a while. Delayed and dynamic maturity is instead consistent with endogenous processes of cultural enhancement of their productions. IDs in delayed maturity could rather be their ideal field, because the history of prolonged development combines with the preservation of a strong productive identity. This helps the generation of opportunities related to authentic traditions, consistent with the cultural enhancement of an ID’s typical products. The Caltagirone Pottery District is an example. The inherited and diffusely recognised line of products has not changed over the last decades; but a gradual integration of cultural activities (factory tours and experiential activities are advertised in showroom in town or abroad and in websites) within the traditional productive core has taken place through time and supported the market strength of such peculiar goods (Santagata, 2002). Dynamic maturity is a more varied field, as we are going to argue in what follows.

5.2. The cultural factor helping resilience or recovery from lock-in in mature IDs

The cultural enhancement of products in mature IDs has possibly deeper functions in face of conditions of resilience or recovery from lock-in. A wide set of culture related conditions is involved, and we call it the “cultural factor”. It includes both objects and resources (Kebir & Crevoisier, 2008). Objects refer to the intangible cultural heritage, such as that giving a peculiar ID identity to a place of productive chorality; but also to the tangible cultural heritage, passed down from both the more or less recent productive history of the place and the past traditions of local arts and culture activities (spanning from artefacts to adapted landscapes). Resources refer to the cultural objects that are included within or give support to the contemporary social and economic life of the place, contributing either to arts/culture activities proper or to auxiliary activities for the typical products of the ID, such as those recalled at the end of the previous sub-section.

IDs in dynamic maturity may take advantage of a well-articulated cultural factor for strengthening their transition capacities. Two main models operate on this junction. The first one concerns the possibility of intersecting the nuclei of cultural and creative know-how, complementary to the traditional cognitive core of an ID, with other opportunities related to the cultural factor, and grow nuclei that have also their own markets. They are bases for new secondary industries and replacement multiplicity. Examples concern the many cases of development of tourist activities or of recovery of traditional craft productions, that are related to the tangible and intangible heritage, and take advantage of the sedimentation of cultural and creative know-how around the traditional core29.

29 The Slow Food movement originated in Bra, a town of the Langhe and Roero food district in Piedmont (Italy), is a good example. This movement arose from small producers of typical artisanal foods, reacting against the globalist social and organisational culture of industrialized food products. A non-profit organisation Slow Food, operating as an
The second model points to the possibility of a more direct transformation of the cognitive core and the institutional frame of an ID. Here, the growth of arts and culture activities based on the local heritage helps in various directions. It seeds the possibility of skill upgrading and social innovation, opens to new external knowledge networks, promotes changes within local leaderships, sets up new institutional solutions, recovers latent productive identities buried into museums, and makes them the basis of a renewed interpretation of the traditional products of an ID (Sacco, Ferilli, & Blessi, 2013). In other words, the cultural factor plays as a catalyst ready to help the activation of mechanisms and resources of transition when an ID meets a conspicuous competitive challenge or a structural shock. The case of the Swiss Watch Valley, with the new positioning of the mechanical watch as an international winning product against the challenge brought by Japanese electronic watches, between the 1970s and the 1980s, is an emblematic example (Kebir & Crevoisier, 2008).

IDs in delayed maturity, and more so those in precocious maturity, do not enjoy an easy ride to transition, not even if they have rich cultural objects, because the tight focus on the traditional cognitive core and the related institutional solutions slows down the articulation of cultural resources not tied to the service of the core. Lock-in appears when external challenges or structural shocks hit the district. The crisis cannot be avoided, and decline is a grim but realistic prospect if solutions are not found in the middle of pain and uncertainty. Apart from luck, recovery needs system strategies and policies acting at multi-territorial levels and hitting the core and institutional frame of an ID. Place-based cultural policies are included among such deliberate actions. In the following sub-section, we give some illustration of their possible contents.

5.3. Multi-level system policies and cultural heritage in Italy

Let us consider, as an exemplification, the Italian case. The great density of the Italian cultural and landscape heritage represents a commitment to the world in terms of conservation. It also represents a general opportunity for development, and not just for the growth of tourism flows and business. The opportunity comes from the integration of the heritage within systems of industrial and social relations, supporting the growth of cultural and creative activities in urban and rural systems, strengthening the senses of local belonging and identity, favouring the emergence of new production systems, and the renewal of traditional craft clusters (Lazzeretti, 2009). This is a rich and multiple field covering a large part of Italy, where a large set of Italian mature IDs are included, even if the concentration is higher in some regions (Istat, 2015, pp. 186-187).

Here, multi-level policies have great opportunities of application. They focus on the formation of platforms of technological, social and cultural innovation (Bellandi, & Caloffi, 2016), being structured

information organiser, promotes events and enters the media industry founding a publishing company (Nosi & Zanni, 2004).

Outside Italy, consider as an example, the case of cultural strategies recently applied to support the social identity and the economic recovery of the Jewellery Quarter of Birmingham, a type of industrial district in the past centuries. The City Council, thanks to Donald Insall Associates and Weatherall Green&Smith, with the support of the English Heritage (a national agency) and Advantage West Midlands (a regional agency), prepared an image appraisal and a management plan for promoting the “Regeneration through Conservation” of an area recognised as a national treasure, a place of unique character (Birmingham City Council, 2002).
processes aimed at integrating a disperse wealth of local resources. They increase openness and transversality of knowledge creation, around some driving ideas on new ways of understanding life and work\textsuperscript{31}: ideas such as the combination of culture, science and high technology on/around arts, crafts and food that support the success of high quality products and services in world markets and socio-cultural systems. The combination of needs and problems emerging in cities of dense cultural and landscape heritage with sustainable urban energy, mobility, and building solutions represents another driving idea. In general, such policies should help the constitution of both trans-local networks of innovators and social and business collaborative teams leading the platforms. The local cultural policies in mature IDs suffering lock-in should point to the insertion, within such integrating trans-local processes, of specific proposals related to the development of the cultural factor of the same IDs.

The other side of the moon in processes of recovery from lock-in, and exploitation of resilience capacities as well, is the participation and mobilisation of the people of the place. As Sebastiano Brusco (1982) and Becattini (2000/2015) have strongly argued, this participation is encouraged by the possibility for the working class to preserve and generate prospects of wealth, wellness, ambition. These goals concern both the private and social life and the work environment. Among the factors that contribute to these goals, an effective local welfare plays important functions\textsuperscript{32}. It is not simply a mechanism to cover and protect against market risks, it is a social investment aimed at improving the working and living conditions of individuals and their ability to learn. In this sense, it may influence the sense of belonging and the identity of the place, strengthening the productive chorality and renewing the cultural background of a place, when a difficult and uncertain crisis shakes the traditional foundations represented by the cognitive core and its related institutional frame. On the other hand, local welfare activities host many opportunities for technological, social and cultural innovation. They may be home of a number of new products, technology development, and symbol generation processes, which can combine with the cultural factors of places and the above-mentioned platforms, and enrich the prospects of complementary and replacement multiplicity within local paths of development.

6. Conclusion
This paper has discussed some aspects of the important role played by the cultural background in IDs. Considering such role, IDs are always “cultural districts”, at least in a restricted sense (Section 2). Furthermore, the cultural backgrounds influence deeply the dynamical conditions that control the correlation between adaptation and adaptability in IDs, along paths of development, till different types of maturity states. In mature IDs they are quite easily sources of inertia and lack of adaptability; on the other side, resilience or recovery from lock-in may be helped, under certain conditions, by cultural mobilisation.

The fundamental characters of the IDs’ cultural backgrounds have been identified with the help of a concept recently proposed by Giacomo Becattini, i.e. the “productive chorality”. Reflecting on various streams of district literature, two partially different visions of an ID’s cultural background have been

\textsuperscript{31} Cappellin, Marelli, Rullani, and Sterlacchini (2014).
\textsuperscript{32} Of course, regional and national regulatory and fiscal frameworks influence local welfare’s activities and outcomes (Trigilia, 2001).
unearthed under such concept, the “community” and the “local society” (Section 3). They allow to identify various balances between adaptation and adaptability within different ideal-typical paths of IDs development – to which we have referred as quasi-steady state, stationary state, and robust transition –, to distinguish between nature and effects of IDs maturity states, and to identify respectively three forms of maturity - delayed maturity, precocious maturity, and dynamic maturity (see Section 4).

That “history matters” is not a new concept in studies on local and regional development. However, the true meaning of history is lost when the power of cultural heritage to shape a place is neglected. This paper has pointed out to the possibility to shift the focus from an ID identified by just a localised industry to an ID as a place laying on its cultural background, when adopting formal representations of ID’s paths of development and change. The conservation of the productive chorality is the key element to understand resilient paths, and it does not correspond to the preservation of the productive configuration of an ID as such, which instead desirably changes over time. Without these specifications, misleading interpretations of IDs conditions, in terms of path of development, maturity, lock-in, resilience, recovery, can be easily given.

Finally, an enhanced function of cultural factors, linking IDs’ peculiar intangible cultural heritage to the emergence of arts and culture-based activities, gives a support against either localist fragmentation or centrifugal and disruptive tendencies. When mature IDs met endogenous or exogenous shocks asking non-gradual changes, opportunities typical of cultural districts are a way to resilience and lock-out. Weaker states of ID maturity, as the precocious one, ask a deeper support of multilevel system policies (Section 5).

New designs for empirical researches have to be pursued: a “place-based” and “cross-sectoral” perspective is crucial to understand for example mature IDs’ traverses to paths of development still consistent with a large variety of interconnected projects of life of the place, i.e. productive chorality. The impact of the cultural background and the opportunities given by related arts and culture-activities are not easy to translate into specific variables for empirical analysis. However, the three maturity states and the identification of proxies related to different degrees of adaptability will help to categorise industrial and regional changes in various scenarios. The proxies in particular should concern either the inclusion of new specialisations within the productive core of the place, or the emergence of new productive specialisations changing the nature of the core. Future research will apply this perspective.

References


