

From Hierarchical Convergence to Reticular Expansion: Urban Dynamics Through Alice's Mirror

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Abstract

The paper addresses the role that Cultural and Creative Industries (CCI) play in contemporary urban dynamics. In the framework of the knowledge-based economy, value is increasingly generated and multiplied by activating and consolidating networks between cities, and it is reproduced in intra-urban dynamics, by disrupting hierarchies and seeking value chains in unconventional areas. In this framework, the EU ROCK project is a paradigmatic experimentation of a new urban system in which convergence as a source of value is replaced by reticular expansion. The paper tests the ROCK methodology against network literature, investigating its role as a network infrastructure for knowledge and innovation expansion. This interpretation can inform policies for CCI, especially in the context of the New European Bauhaus, as it calls for more articulated public action to redesign urban dynamics, settlements and flows in specific urban areas.

Keywords

Urban dynamics
Network theory
CCI
Culture-led development
Knowledge economy

Introduction

The urban domain continues to be a frontier for cross-fertilisation and a living laboratory of innovation and economic development: at the intra-city level, the clustering of Cultural and Creative Industries (CCI) continues to boost the knowledge economy, a long-standing pillar of contemporary development at both global and local level; at inter-city level, exchanges of creative inputs and strategic cooperation mechanisms speak for the preeminent agency of cities in a transnational economic context.

The relevance of cities as economic engines dates back to the industrial revolution, which has driven resources and human beings towards cities, catalysers of the new manufacture-intensive economy. The massive demographic development of cities in the 19th century contributed to turning them into the most profitable environment for forming relationships and for intensifying social capital. This development pattern was considerably altered with a shift from a manufacturing to a knowledge-based economy (Scott, 2007) and dramatically amplified with a globalized society and economy that turned social relationships into a global network.

The “knowledge society” proposed by the EU as a driving force passes through creative innovation and its integration within the standard economy, as “economies are inflected culturally and industry in general comes to resemble cultural industry in particular [...] all industrial production is now more design intensive than in the past and, as such, is increasingly similar to cultural production” (McGuigan, 1996, p. 88).

In this scenario, the importance of networks becomes paramount for addressing social issues and fostering innovation. The first part of the text addresses this network dimension in the creation of innovation, in the dissemination of knowledge and in the production of new intellectual capital, with a specific focus on the CCI. It draws both from a body of academic literature and from documentation of EU policies.

The text continues in the empirical part, to present the case study of the Horizon 2020 project *ROCK — Regeneration and Optimisation of Cultural Heritage in creative and Knowledge cities* (GA 730280), a case of intra- and inter-city network, involving ten cities. Focusing on culture-led urban regeneration, ROCK is an action-research project, which helped to test new alliances between CCI both locally and trans-nationally, starting from the enhancement of cultural heritage. The circular research-action-research methodology adopted by ROCK, applies the logic of the laboratory in real environments, through the proactive collaboration between urban actors, oriented to the regeneration of cultural heritage. ROCK mentoring and sharing methodology is investigated in its role as a network infrastructure for facilitating cultural and creative innovation.

Finally, the article proposes to rethink the creative and knowledge city and its development from the perspective of the inter- and intra- network between agents interacting within themselves and with the urban context. In the new intra- and inter-urban dynamics that are being created, hierarchies are being disrupted and value chains are finding ground in unconventional, hybrid areas.

Cultural Networking as a Design Science: A Literature Review

Already in the 1990s, literature on urban economy emphasised how “urban policy in the late twentieth century” was “inseparable from cultural policy” (McGuigan, 1996, p. 95). At the core of this association is the tight interplay between two main factors, “the rise of the knowledge economy and the increasing network dimension of society” (Borin & Donato, 2015).

The first concerns the role of the creative economy in stimulating urban innovation and economic development (Throsby, 2001); this view subtends that culture in urban policy “can have a leading position within urban development strategies with respect to locational attractiveness and competitive advantage and can help to create more human, balanced and civilised cities” (Lavanga, 2005, p. 3).

The second concerns the role played by human capital, embedding the cultural and social dimension, in the culture-led process of innovation and urban development. With particular reference to the urban domain, attention has been placed on the collective manifestations of cultural capital ever since the rise of urban studies: “knowledge is dispersed through society” (Wall, 2014), and is a collective endeavour, a commons (Hess & Ostrom, 2007). Individual creativity and its aggregation as a driver of creative innovation and urban development result in and are a consequence of a network society. In the case of CCI, theories on the collective nature of knowledge find their correspondence in organizational studies on the importance of networked approaches to the creative ecosystem: a managerial perspective asserts that “cultural ecosystem is something to be implemented” (Gross & Wilson, 2018); while others focused on innovation as the result from “the active combination of people, knowledge and resources” (Obstfeld, 2005, p. 100). Blackstone et al. (2015, p. 79) note how the development of social and cultural capital are “dependent on social networks and relationships of trust”, while others have pointed out how cross-sector networks are more effective in tackling social issues and in implementing effective strategies for urban redevelopment (Clarke & Crane, 2018).

Research on networks, their structure and their components behaviors, has been considered as a “design science” (Andriessen, 2004). Obstfeld (2005) has introduced the *tertius jungens* orientation, describing the attitude of joining together two previously disconnected actors within a network, theorising brokerage as the process of mediating, in opposition to the *tertius gaudens*, who would act as a divider out of self-interest in a social network. This research paved the way to understanding cooperation as a key factor for fostering innovation through dynamic networks (Rossetti & Cazabet, 2018).

Two main network structures have been identified with the respective benefits and criticalities: dense networks, characterised by the intensity of ties, allowing faster knowledge dissemination and easier cooperation but hindering the production of new ideas; sparse networks, rich in structural holes, “presents both an opportunity structure for generating new ideas and an action problem” (Obstfeld, 2005, p. 101).

At the intra-urban level, the design-intensive, knowledge-based economy of cities lies its foundations on intellectual capital, and on its expansion through the ties of denser social networks in cities. At the inter-urban level, transnational, inter-city networks are able to upscale this process facilitating knowledge dissemination and creative innovation through mutual exchange. The combined impact of a “network society” and of culture-led urban development has been widely explored in research: in this scheme, CCI clusters act as a tool for territorial marketing, to attract not only new forms of economic investment, but also new citizens and businesses interested in settling in a fertile territory.

The analytical framework in which this paper posits itself is reinforced by the positions and trends taken over the years by various international and European policy agencies.

Culture-Led Sustainable Development in the Network Society

The possibilities provided by the network of CCI in culture-led urban development have long been the subject of reflection by European and international agencies (UN, 2020). Europe's position is to consider more and more the innovative potential of cultural and creative economies as intertwined with sustainable and more equitable strategies (Sabatini, 2019).

Connecting CCI to a sustainable and inclusive urban recovery strategy will have long-term benefits, including, but not limited to, an economy with better resilience in the face of the rapid challenges of years to come. This reflection has its culmination in 2020, with the creation of a true platform of co-creation, in support of the European Green Deal policy, the New European Bauhaus (NEB), a think-and-do-thank for the future of cultural economy in Europe. The NEB stems from a call by the President of the European Commission to work across disciplines between art and culture and the environmental sectors, to address the global challenges faced by cities, including health and ecological crisis. Drawing from the original Bauhaus principles, it provides an interdisciplinary and holistic “collaborative creation space between various disciplines and stakeholders” (NEB, 2021). The goal is to build an European movement, recognizing the centrality of collaborative design to support an European cultural project that works with analytical and synthetic methodologies (typical of research-by-design) to observe and prefigure the future in a creative way, bringing policy objectives closer to people.

The NEB also aims to take advantage of the relationship between sustainability and cultural heritage, with a focus on inter-sectionality, cohesion and well-being, strengthening the ecosystem of collaboration for culture, and international networking, in line with the Work Plan for Culture 2019-2022 (EC, 2018) and its five principles. NEB is the latest experience that aims to make the productive exchange of knowledge on the creative economy permanent, this time acting as a conductor and collector of intra-national initiatives, at European level. Some initial empirical reflections can be verified

from the investigation of experiences that have worked within this theoretical and policy framework. The H2020 ROCK project is a key example from which to build upon.

The ROCK Project: An Intra- and Inter-City Network of CCI

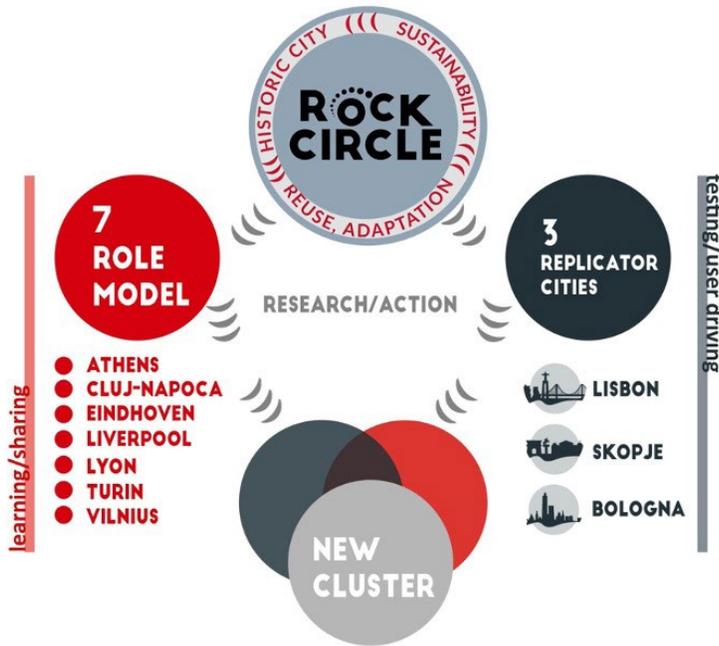
ROCK (Regeneration and Optimisation of Cultural heritage in creative and Knowledge cities) is a European H2020 project whose main aim was to develop, test and monitor CH-led urban regeneration processes in creative and knowledge cities. The premises of the project interpreted culture as an engine not only for urban transformation, but also for the multiplication of situations from which a possible collective knowledge production can be expected. ROCK strategy relied on experimentation and learning-by-doing in the production of interventions for the cultural regeneration of city centers (Longo et al., 2020). It involved ten European cities in a cross-scale mentoring and exchange of cultural practices. Seven cities — Athens, Cluj-Napoca, Eindhoven, Liverpool, Lyon, Turin, and Vilnius — were selected as role models that succeeded to use culture as an enabler for local regeneration processes. The aim was to test the replicability of their successful models in three Replicator cities (Bologna, Lisbon and Skopje).

The core idea was that replicators would benefit from experiences of role models to adapt successful and validated practices to their local contexts, as well as to formulate adequate responses to problems already faced by others. Initially designed as a one-way mentoring process, the approach quickly shifted towards a collective-driven exchange methodology based on thematic clustering, thus confirming the dynamic nature of the network, in which the position of the actors evolves dynamically according to their mutually changing relationship (Rossetti & Cazabet, 2018).

ROCK can be considered as a paradigmatic experimentation of a new urban system in which the convergence towards the historic city-centre as a source of value is flanked and substituted by a “reticular expansion”.

In this scenario, the project worked simultaneously on multiple levels:

- intra-urban level, an action-oriented layer oriented towards the design of specific action plans for each city;
- inter-urban level, with an interaction layer based on exchange and knowledge transfer among the cities.



At the intra-urban level, ROCK provided financial, organisational, legal tools for the local ecosystem of cultural and creative practitioners and operators, by strengthening and generating opportunities for action, new entrepreneurial chances and alliances for cultural change, acting as a network infrastructure that facilitated exchange and reduced the efforts of intermediation between the different actors. This change occurred through incremental urban experiments based on a design-oriented interaction between citizens, local cultural practitioners, CCI operators, administrative action and cognitive reflection. These five categories of urban actors were engaged in experimenting around cultural site-specific assets, tackling existing gaps, in a learning-by-doing process. The local Living Labs established in the cities played the role of knowledge brokers in strengthening the intra-urban social and intellectual network through urban interventions. They acted as facilitators of processes, detecting and addressing the cultural, social, economic barriers that inhibited the pro-active collaboration among CCI. Pop-up interventions, greening installations, extemporaneous festivals, collective narrations were generated as results of the interaction among a variegated constellation of new local alliances produced by the project. With its intra-city networking, ROCK shifted the focus from the artifact to the people, where the latter are no longer considered instrumentally as a target for cultural activities and offers, but take an active role as agents and producers of meanings, social values and economic flows, providing a contribution to the “design science” (Andriessen, 2004) and an advancement in the design of new governance models.



U-lab, a collaborative urban Living-Lab among the University of Bologna, Fondazione Innovazione Urbana (FIU), and The Municipality of Bologna which took place in the city centre. Source: FIU.



SKULL, the Skopje urban Living Lab where the Skopje Development Institute was conceived. Source: ROCK Skopje.

At the inter-urban level, the ROCK approach was to set out a framework to continue efforts and investments in cultural and creative economy development in order to scale up the individual initiatives. This was achieved through a Cluster approach which included ROCK cities aiming to continue the collaboration initiated within the project, proving the adaptive and dynamic nature of the network. Clusters were organised as a cross-sector partnership and included CCI, Universities, civic agents linked to culture aiming to provide their expertise to transnational challenges. One key Cluster worked on new governance models for creative, sustainable and circular cities and saw the most interesting results with respect to the strengthening of networks for cultural-based regeneration. The ROCK cities' cultural ecosystem is made of a large number of CCI, as well as a constellation of cultural operators, informal cultural experiences, association, enriched with the pervasive presence of

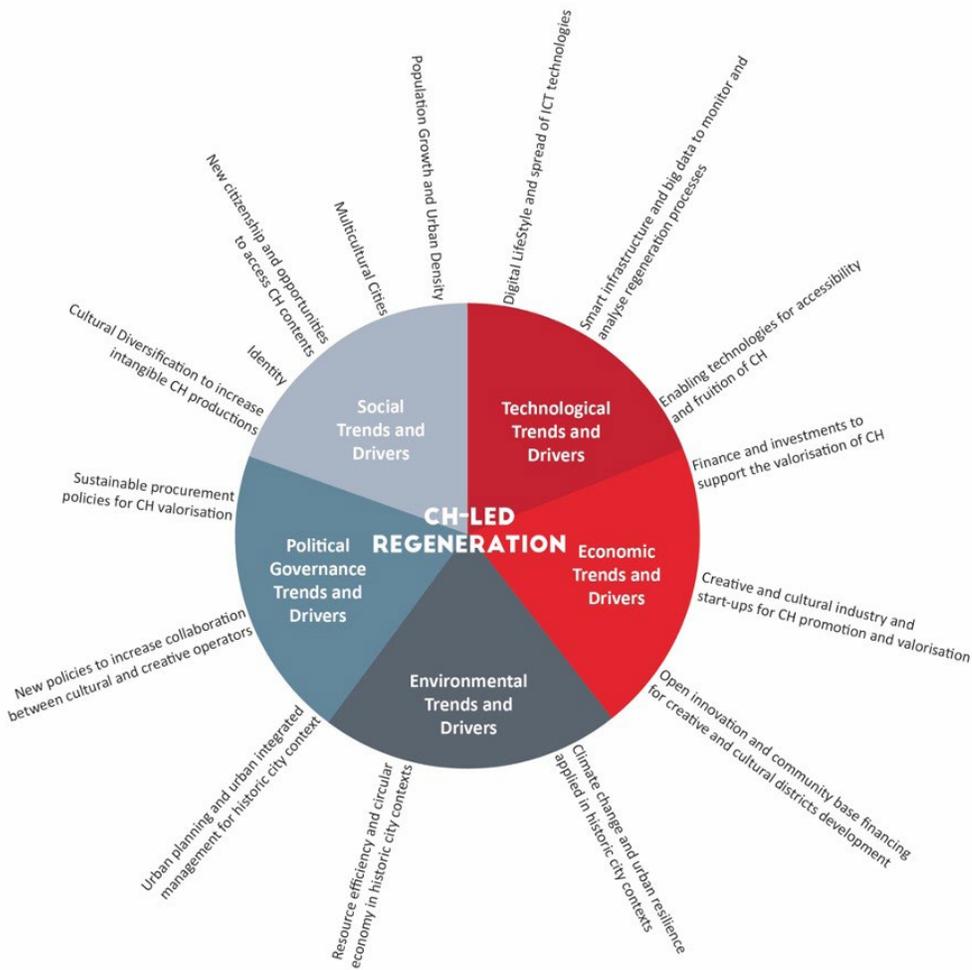
several Universities. ROCK acted in this context, by first densifying the local social ties, to accelerate the knowledge dissemination and strengthen the cooperation. It provided a local playground for the actors to engage, enabling their collaboration with innovative procurement (Boeri et al., 2019), service co-design and alternative finance. A key result was the formalisation of the existing alliance among the Universities and the City: in Bologna, with the transformation of the Urban Center into the Foundation for Urban Innovation (FIU); in Skopje, with the establishment of a Foundation – the Skopje Development Institute (SDI). These new entities reclaimed the role of platform-infrastructure, granting access to cultural and creative sectors, public actors, associations and citizens at intra and inter-cities level. By experimenting, failing, adjusting, re-testing, this new urban actor was able to densify the local network of culture in the cities, as well as providing an open dialogue with international models and issues.

The project created a new framework based on a clear understanding of the local context of each city, fostering the adaptation of successful models in a trans-national dimension.

Lessons Learned From ROCK in the Theoretical and Policy Framework

An important takeout from the ROCK project was acknowledging its ability to operate as a supporting socio-technical infrastructure for local, national and transnational networks between CCI: local spaces of mutual learning were opened, inter-city networks were built and strengthened, and new individual and collective urban agents were generated. The added value for the different cities was to intensify the network for actors from different chains (institutional and non-institutional, public and private) producing value based on partnerships between art and science, technologies, creativity and sociality. This allowed to bring together vertical and horizontal levels, along with cross-sectoral expertise of actors that do not usually interact, overcoming the limits of industries, professions and cultures. Going beyond their initial role as Models and Replicators, the cities closely interacted in a mutual exchange process, enhancing their potential, developing new local economies based on culture, and strengthening local governance capacities.

Similarly, ROCK has intensified ties internally among local CCI and other urban institutional and informal actors, but at the same time it opened up to several international networks. It was able to “localize the global and re-dispatching the local” (Latour, 2005, p. 204). Cities invested in a continued, reinforced mutual collaboration, for new design-oriented alliances, for policies’ innovation, for the provision of a common frame for urban culture to continue to boost the knowledge economy.



The approach of reciprocal exchange and clustering of competencies, finally expanded the very definition of cultural and creative city, from the object of “culture” to the “process” of its production, and the agents supporting it. This approach resulted in a focus on the agents and the relationships between them as well as their interdependence with the context. In this regard, the object of the project (the knowledge and creative city) has shifted from the recognition of a quantity of specific cultural assets to the interpretation from a productive point of view, as an enabling environment for a series of formal, informal and hybrid interdisciplinary cultural and creative productions. This attitude reflects in the space modification and use, as it fits well into the current perspective that consolidates temporary, economic and reversible adaptation measures, uses of public space for finite or variable periods of time and expansion of the space available to city users.

ROCK inter- and intra-networking values for Cultural Heritage led regeneration. Source: ROCK Project.

The mutually influential inter- and intra-urban levels ricochet conventional urban dynamics and the centre-periphery pattern of the city, creating horizontal clusters for exchange and the implementation of ideas.

The knowledge economy deflects the expansion paradigm, just as Alice's mirror, operating a subversion of the pre-existing urban reality: through this mirror-network, a new, reticular pattern for urban development is provided, whose effects are visible today and will be cumulative in time. In Carrol's narrative, the mirror subverted the logics which underlie reality, normalizing the grotesque, resizing the big *vis-à-vis* the small and vice-versa. The subversion of the ROCK project consisted in the horizontality of network interactions, in the deflection of centre-periphery dynamics, as well as in a renewed emphasis on the local level as a driver for global growth. In this sense, the project operated synergically two movements that modernization had made contradictory: sticking to the ground on one side and becoming globalized on the other (Latour, 2005).

With these lessons learned ROCK positions itself as a potential leader in the implementation of the global cultural agendas, summarized by the NEB and also to be involved in the development of the EU's own innovation policy.

Open Issues and Conclusions

In the near future, in a world trying to recover from a pandemic and its unprecedented effects, the path of economic growth is uncertain. The opportunity posited by existing and emerging experiences of the creative economy, is to shape it to be more inclusive and sustainable, transformative in terms of income generation, job creation, and export earnings at both intra- and inter-city level.

The ROCK experience can prove a precious benchmark with respect to the criticalities of the economy and its potential for urban development: cooperation and networking at both the inter- and intra-urban level contributed to reducing transaction and intermediation efforts between the actors within the creative ecosystem while providing an effective brokerage platform for the exchange of ideas and solutions to face common problems.

In facing uncertainty, the ROCK methodology is a valuable tool for its dynamic approach: its evolution as a network infrastructure in response to the evolving relationship between its actors denotes a flexibility which will be crucial for addressing expected future backlashes.

The cross-sectoral approach adopted within the ROCK network has a potential to inspire and to be successfully inscribed in the NEB: overcoming sectoral boundaries and enhancing cooperation between different stakeholders, shaping a collective intelligence Living Lab at a EU scale, creating a transnational platform for exchange among cities, it can contribute to effectively design new governance models and to craft new cooperation strategies for common, transnational challenges. As a test-bed of Europe-wide collaborative research-by-design, ROCK is a fruitful

benchmark to reflect upon and upscale for verification and discussion in the framework of the NEB.

Lessons learned from the cooperative patterns in the ROCK project, as well as an assessment of its potential for fostering growth and generating capital flows, will have to be produced: this logic appears able to build a system of punctual and specific system alterations that, however, should not remain isolated from the very reasons for the overall urban development process. The ROCK framework could, then, contribute to an understanding of the potential role of CCI in the response to the COVID-19 crisis, particularly in the European scenario.

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