

 reviewed paper

Mischung: Possible! Impulses for Mixed Use and Flexible Capacities in Contemporary Densely Built Urban Areas

Silvia Forlati, Christian Peer

(Dr. Silvia Forlati, TU Wien, Karlsplatz 13, 1040 Wien, silvia.forlati@tuwien.ac.at)
(Dr. Christian Peer, TU Wien, Karlsplatz 13, 1040 Wien, christian.peer@tuwien.ac.at)

1 ABSTRACT

Contemporary densely built urban quarters lack impulses for mixed use and flexible capacities, often resulting in almost mono-functional housing areas. The aim of the paper is to explore this widely disregarded link between theory and practice in urban development, in other words: it's about the missing link between conceptual demands for mixed use and the contemporary implementation process.

2 INTRODUCTION: MISCHUNG: POSSIBLE!

The paper is based on preparations and findings within the Smart City Demo-project “Mischung: Possible!” (TU Wien 2016), funded by the Austrian Climate and Energy Fund (KLIEN 2015) and refers to the Smart City Wien Rahmenstrategie (Stadt Wien 2014). Smart City Demo-projects are targeted to engage and enact on sustainability transition. Scientific activities within the program family are necessarily prescriptive efforts, have to embrace an integral approach towards innovation and therefore have to produce transformative knowledge. The project Mischung: Possible! is focused on the qualities and the development of mixed use and flexible capacities in contemporary densely built urban quarters. The goal is to establish a link between the macro, meso and micro level of planning, to evaluate the value of mixed use structures in the context of social and technological change and to build upon implementation scenarios for sustainable mixed use development. The project is based on an innovation oriented strategic-relational institutional approach, involving a mix of methods such as desk research, participatory research and stakeholder involvement (citizens, planners and public officials, developers, users etc.) through interviews, workshops and group discussions, evaluation through case studies in Vienna and short field research on innovative actors and projects in London and Amsterdam, impulse-scenario building and modeling.

Practice in urban development shows, that the outcomes lie generally behind the conceptual demands, resulting in more or less mono-functional housing areas (Bretschneider 2007; Wieland 2014; Nedden et al. 2015). This applies typically to Vienna, where the pressure of demographic growth weights heavy on housing policy since more than a decade now. The reaction of housing and urban development policy (represented through different political parties since the year of 2010) is experienced as an ambivalent mixture of satisfaction (with growth, life quality and social housing), ambition (in regard of participation, social infrastructure, mobility, energy) and disregard (of the flagging economic structure and the demands of integrative urban development). Within Mischung: Possible! monofunctionality in the urban context is presumed as an unsustainable and not resilient context of living. Such city structures may lead to more traffic and energy consumption, and to less life quality at the same time. However the opposite, the enforced homogeneously mixed carpet is – at least for the whole city – not the perfect solution as well. Hence, Mischung: Possible! is aiming at the conceptualization of place-sensible mixed use scenarios in-between these limits. The starting point of this paper is the need for innovation and research action (chapter 3). The path towards sustainability transition is introduced by involving a innovative comprehension of urban development in the process of research. To come with implementation into play the contemporary framework of urban development will be presented as an environment where the planning of the physical structure belongs to appropriate soft tools and processes as well as a different collective understanding of urban growth. The following chapter is about affordability in mixed use areas to exemplify the differentiated approach towards mixed use (chapter 4). Addressed as the precondition to decode the development of life quality, affordability is represented as the nucleus of social justice as well as of resource effectiveness and environment protection. A complex understanding of affordability and it's changing character over time will be presented by the contextualization of different understandings within urban development. Finally, the preliminary findings are presented in the conclusion for further discussion and research (chapter 5).

3 THE NEED FOR INNOVATION AND RESEARCH ACTION

In order to implement innovation in the development of mixed use, the spatial-typological dimension needs to be combined with the economic, social and ecological one. The focus here is set to post-industrial and reflexive forms of innovation (Rammert 1997), that move beyond the material/ physical dimension to ways of thinking and development and social processes that are not only different from the standard ones, but in some ways better and consequently offer an added value of some kind. We suggest to keep in mind a wide set of innovation dimensions, at least the organizational, technological, service-based, social, policy and design-driven ones (Image 1). Within that understanding of innovation traditional and new forms of agricultural, industrial and post-industrial labor as well as alternative concepts of work may be included in mixed use-scenarios. In this sense, the approach to innovation pursued here refers both to forms of service-based innovation (Salter / Tether 2006), but as well to planning innovation by questioning existing routines through the introduction of new governance structures, process and instruments, in other words through transformative practices (Albrechts 2010) that can discard existing concepts, structures and ideas that are not supporting the development of a differentiated and sustainable urbanity.

The development and the implementation of that kind of innovation relates to a comprehensive understanding of sustainability and planning. Within the program family of the Smart City Demo the orientation towards the implementation of innovation is compulsive and generally framed by a strong pressure towards economic valorization. Interestingly the specific funding framework of *Mischung: Possible!* underlines as well the social dimension of innovation, which is a still underestimated aspect of sustainability change. Each funded project has to define a so called testbed for innovation. At the theoretical level these testbeds are not only to be translated as the physical and social structures within defined city areas but can furthermore be understood as 'niches' in the multi-level perspective of transition studies (Geels / Schot 2007) or in an institutionalist view as places where counter-hegemonic coalitions (Servillo / Broeck: 52) are able to stimulate innovation. In both cases, the superior frame ('regime' and 'landscape' or 'hegemonic institutional frame') is a stabilizer, causing 'locked-in situations' (Rammert 1997). Supposed sustainability transition towards mixed use urban quarters is not realized by single shots, like the invention of new mixed use typologies for single buildings or alternative regulations for shopping streets, but rather through an intelligent combination of the multiple dimensions of innovation mentioned above. In our view it is a core task to translate the additional benefit of innovative mixed use-scenarios to the stakeholder community (planners, administration, citizens, housing cooperatives, developers and investors, researches etc.). As a prerequisite of this task, the pursued common view has to be built upon a differentiated understanding and language of the qualities and values of mixed use.

As for now a variety of configurations can be defined as mixed use, but a wide consensus on defining typological criteria is missing. Relevant literature and evaluations (i. e. Bretschneider 2007; Nedden et al 2015; Wieland 2014) have defined possible qualifying indicators, mostly to compare different developments. Yet the link between different relevant aspects of mixed use remains relatively unexplored and poorly understood. In the *Mischung: possible!* research project the following primary categorization of criteria to define and describe mixed use has been proposed, based on qualitative interviews with stakeholders, and stakeholders' workshop, research and evaluation of three realized examples of urban development, literature research. This approach to mixed use is based on a differentiated understanding of functional and spatial/typological as well as of social aspects. With regard to the functional and spatial/typological aspects mixed use developments can be distinguished on the basis of the degree of functional mix (which functions, how much) and of the related spatial configurations (distribution of the functions). A particular important distinction here is between fine-grained and large-grained functional mix, already highlighted in German speaking contexts (Breuer et al. 2000). An additional criteria is adaptability, with particular focus towards flexible and open-use spatial typologies that allow over time change of uses. Functional and typological criteria need to be related to a predefined observation scale or field, such as: quarter, block, building, unit. Additional selectable relevant fields include specific zone such as ground floor or ground and upper levels. An important differentiation already picked up in various studies is that between the potential of fine versus large grained mixes of built structures. This differentiation, embedded in the spatial and typological configuration, is relevant especially for the use quality and use value, for criteria linked to sustainability and strongly effects the real estate dimension. Furthermore the project is addressed to different groups of citizens and users (i. e. creative industry, zero emission industry, care work). The diversity of citizens, uses and

physical structures is seen as a constitutive asset for urban quarters. These fine grained assumptions should be linked to ecological, social, cultural and economic qualities, such as the following examples shall show literally.

Regarding sustainability a focus here lies on mobility, and how mixed use developments can positively reduce car use because of proximity between live, work and services. Life-cycle of buildings and quarters constitute a further relevant criterion, especially when building can be adapted to different uses over time and are therefore more robust. Mixed use can furthermore intensify space use and therefore reduce the use of resources both in term of space itself (less infrastructure, less ancillary spaces needed) but as well in terms of heating, light, and so on).

Mixed use can strongly contribute to the quality of public space, as in most configurations it constitutes a necessary transition between housing uses and public space and makes it more lively and intense. It can therefore strongly contribute to the attractiveness of a certain area as whole for various milieus interested urbanity. It can underpin social mix and social inclusion raise the chances at the individual level of balancing work and private life thanks to physical proximity between different functions. Additionally a differentiated mixed use configuration can support the synergies among the different functions, as for example highlighted in the analysis of high-streets by the Great London Authority, where both living and working functions support retail and f&b (food and beverage) functions in their proximity (Duggan 2014: 15).

Mixed use is from a real-estate perspective rarely attractive on the short-term. It requires a mix of competences rarely in the hand of one developer alone. Additionally, differently from housing in many contexts in strong demand, non-housing functions are mostly difficult to let and represent a substantial risk. On the other hand successful examples show the potential of raising both housing and non-housing values in the long term because of the specific urban identity.

Further more the quality of the implementation process and of the mixing of technological and social components are essential aspects of mixed use development. Therefore mixed use can be understood as a process reaching from the conception to the use-phase over the long term. Specific implementation measures are necessary in order to realize mixed use, and it is important to develop an approach that moves beyond the spatial structure but integrates economic and social processes as well. The potential of mixed use thus is strongly linked to the need for a differentiated approach. Let's keep in mind that mixed use is not positive per se but that much depends on the kind of mixed use and how the technical and social components, mixed together, actually contribute to the qualitative aspects listed above. These considerations are exemplified in the following approach towards affordability.

4 AFFORDABILITY WITHIN THE CONTEXT OF MIXED USE DEVELOPMENT

4.1 Definitions of affordability within the context of mixed use development

In the context of mixed use the aspect of affordability plays a crucial role for planning, implementation and daily life and represents one of the core areas of research within the project *Mischung: Possible!*. Affordability is essential with regard to the mixed use development process as well as to the phase of use and re-use of the spatial capacities. Moreover in combination with accessibility, the aspect of affordability is an important cause for the distribution and redistribution of opportunities in the city and is therefore substantially responsible for the spatial arrangements as an expression of the cities social structure (Kadi / Musterd 2014). Affordability is related to spatial planning, zoning, quality standards and building regulations as well as to the labour market, the fiscal policy and the welfare system in general. There is a subjective and a collective value of affordability that is methodologically challenging to take into account (Kunnert 2014: 26). Furthermore the adaptability of the definition strongly depends on the availability of reliable data and of its standardization. And finally, the definition of affordability is already a challenging task for the single use case.

In a nutshell there are many different definitions of affordability at the macro and micro level, and regionally different preconditions to translate these definitions into empirical findings. In the case of housing, affordability is strongly linked to societal and economic change, but affordability as a whole is still underestimated within the conception and implementation of mixed use. It is hardly possible to transfer innovations from one city directly to another, but on the contrary highly relevant to carefully translate innovations in a context-sensitive way. Still there are ongoing transformations by which many different cities

(i. e. in the European context) are hit, such as the process of globalization and economic restructuring and the rising economic inequality (Tamaru et al. 2016: 358).

Seen 'work' in the context of individualization, commodification and technological change the different forms of use are more and more interwoven in the dynamic change of spatial needs. Additionally the societal change leads to new dimensions of work, shifting partly away from gainful occupation, and again calling for affordable space to enable the resources for a meaningful life. However in comparison to housing, there is not so much knowledge about the affordability of work in the context of mixed use development at the macro and micro level.

Another aspect of affordability relates to the concepts of resource effectiveness and environmental protection. There, affordable products and services in the spatial context are facilitated through the effective allocation of resources and they are shaped by a robust design, fulfilling their "function" over a long period of time. In addition, affordability for the next generation is a sustainable way of planning cities, embarking construction processes and using materials in an intelligent manner. There is uncertainty about the real future of work and the figure of the user in a more and more global, commodified and technological world. There is uncertainty as well about the future political forces and the future public opinion. What we see for now is, that both the growth and the technological paradigm, as the predominant orientations at the macro level are failing apparently at steering society towards a sustainable way of life.

4.2 Contextualization of the understandings of affordability

Let's take housing at first: most notably the definition of affordable housing is expressed through the relation of financial incomings and outgoings (purchasing price, rental fee). On an aggregated base these values can be compared over time and/or with other locations (small units for segregation indices, cities and nations for development indication, etc.) and/or with other products of consumption. But there are even more aspects of relevance: life quality, individual preferences, social belongings, cultural traditions, household size etc. Affordability in housing played a central role in Modern architecture and planning. The long-lasting idea of achieving affordability due to the reduction of the required built space and simultaneously to the raise of efficiency has become embedded in most normative and planning systems.

Only recently, and in specific contexts (i. e. Amsterdam, London), attention has been given to the provision of affordable working spaces, as these city administrations have acknowledged the reduced availability of such spaces in newly built areas because of housing pressure, and that at the same time such spaces (also named Low Threshold Enterprise Spaces or LTES, London) play an important role for the city as a whole in terms of provision of necessary services, creation of employment opportunities, innovation (London) (Maccreanor et al. 2014: 240) and guaranteeing the survival of subcultures and related urban competitiveness (Amsterdam) (Pot 2011: 46 ff.). Also concerning the provision of work-spaces attention has been paid to the need of spatially mixing the provision of affordable and subsidized spaces with market-price ones, albeit with different reasons and motivations than in housing.

In housing in fact there is an explicit need to avoid socio-spatial segregation, and this need is so strong that public interventions have some times taken into account the distribution of housing benefits also towards higher income groups in order to guarantee social inclusion and mixing (see for example Viennese housing policy). Examples of mixing housing strategies include the VINEX locations policies in the Netherlands that mandated new housing developments to include 30 percent of social housing units, partly financed by 70 percent commercial housing (Hall 2014). More recently in Vienna housing policies have promoted the so-called 'smart housing' and introduced affordable housing as a specific category of land use. These policies are thought to approach the lack of affordable housing for the lower-income groups, for which much of the subsidized housing market (partly based on cooperative model of rent-buy) remained not accessible.

In the case of provision of mixed affordable and market-priced work-spaces the logic behind mixing both in London and in Amsterdam is similarly based on harvesting potential synergies among different kind of users and uses. In Amsterdam the provision - through the Broedplaatsen program - is aimed at the creative industries, and is based on subsidies to develop and operate such work-places when mixing 40 percent of low rental spaces for artist with 60 percent commercial spaces for creative firms. Particular relevance has been seen in the place-making potential of broedplaatsen that are consequently understood as urban regeneration tools.

In London, the Plan Policy 4.1 ‘identifies the need to ensure a good supply of workspace in terms of type, size and cost, supporting infrastructure and suitable environments for larger employers and small and medium enterprises, including the voluntary and community sectors.’ (Greater London Authority 2015). Boroughs can mandate for new developments the provision of a certain amount of affordable spaces.

The definition of affordability especially for what concerns work-spaces varies strongly in different contexts. While the definition of affordability in housing has, at least in the macro level, been agreed upon (for example Eurostat and the Council of the European Union consider housing costs- exclusive of utilities but including mortgage and interests costs for owners- as ‘overburdening’ when they are above 40 percent of the disposable income, (Pittini et al. 2015: 16), and there is a rough consensus that households spending more than 30 percent of their gross income on housing have an affordability problem (Pittini 2011) None such standard definitions exist for affordable work-spaces.

Empirical findings both in London and in Amsterdam (Great London Authority 2015: 20; Gemeente Amsterdam 2016) emphasised that the focus for affordable workspaces should be shifted from rental price to square meter to the unit price. Additionally important factors to be considered include stage of development of the business, sector, flexibility, access to information and networks. In Amsterdam, the most recent Broedplaatsen framework mandates a price of 300 Euro / month for the affordable units, independently from the units’ sizes and exclusive of utilities costs.

In London, where such spaces are not directly subsidized, affordability is often defined as percentage of market rate, and a sliding scale is applied, for example starting from 60 per cent of the market rate for the first three years, and then decreasing down to 90 per cent by year ten (Great London Authority 2015: 26, referred to Borough of Hackney). The effect of this policies has been questioned (Ferm 2014), as it is strongly linked to the profile of the involved stakeholders, in most cases are not actually apt at promoting and managing such spaces. Successful examples however confirm that the impact can be wide reaching both in terms of implementing mixed use attractive developments and positively influencing the surrounding. More in general there is an understanding within the Regeneration Unit of the Great London Authority that work-spaces act as an ‘ecosystem’, and that specific attention should be given to the interplay and synergies between low-threshold and market-price spaces (Maccreanor et al. 2014: 65).

It is clear that developing mixed use structures requires additional resources in many ways (development, construction costs, management). Without additional resources there is a consistent risk of cannibalization among the affordable components, as shown in the case of the Vienna’s Quartiershäuser. Here, the affordable rent (mandated at 4 Euro/square meter) for up to 30 percent of the total usable surface could only be achieved in combination with commercial high-end housing, and therefore eliminating to the affordable housing component (Gutheil-Knopp-Kirchwald / Kadi 2014). An integrated and long term approach to mixing, with both work and live components, each of them with affordable parts, represents without any doubt a considerable challenge for all involved stakeholders.

Differently than in regeneration projects, in most new urban developments housing the main focus of the involved stakeholders is housing. Consequently little competences are cultivated and available for the development and combination of differentiated work-spaces, beyond the provision of the standard commercial retail infrastructure for residential area. In this case the notion of affordability is questionably limited to affordable housing, following the Modern paradigm and according to the consequent still embedded in the normative and supporting system. These systems appear to be hardly able to react to societal changes pushing towards fluid borders between live and work functions and times, mandating instead the production of monofunctional spaces with fixed predefined uses.

The challenge of integrated approaches is even bigger because of the lack of coordination among responsible agencies and stakeholders (for example among housing and economic development). This lack is particularly evident in the case of new urban developments where everything is being built from scratch and housing is the main focus. Integration can only work if the notion of affordability is approached in an integrated perspective, as suggested with the idea of affordable city, and both spaces, instruments and incentives are developed accordingly. This means moving towards an integrate conception of urban development focusing on economic and social processes, next to spatial structures.

5 CONCLUSION

Mixed use is often conceptualized in terms of building and spatial structures, while economical and social processes that are implicit in mixed use development receive little attention. This basic conceptual gap is embedded in most development processes, and reflected in housing-dominated new urban developments. In order to achieve effective implementation of mixed use, the physical space, economical and social dimensions need to be conceptually integrated. This synthetic perspective gives indications about the nature of the possible innovations in the context of mixed use urban developments: as combinations of spatial-technological structures and organizational, people and / or service based components whose effects can range from social, to economical / service-based and spatial / typological innovation. Especially fine-grained non housing functions – in order to be successful – require incentives to support affordability, and as well organizational and financial innovative structures (such as specific subsidies both object and subject based, cross-sites operators, business consultancies, branding). At the same time the preliminary findings of the project indicate that specifically these kind of uses are particularly relevant, and until now neglected, ingredients for a sustainable (and mixed) city.

6 REFERENCES

- BANERJEE, Ian; PEER, Christian (2015): Smart city concept flows. In: DANGSCHAT, Jens S.; GETZNER, Michael; HASLINGER, Markus; ZECH, Sibylla (Hrsg.): Österreichisches Jahrbuch der Raumplanung, Wien: Neuer Wissenschaftlicher Verlag, S. 41-60.
- BRETSCHNEIDER, Betül: Remix City. Nutzungsmischung: Ein Diskurs zu neuer Urbanität. Frankfurt am Main: Peter Lang. 2007.
- BREUER, Bernd; MÜLLER, Wolfgang; WIEGANDT, Claus-Christian: Nutzungsmischung im Städtebau. Endbericht. In: BBR (Hrsg.): Werkstatt: Praxis, Heft 2/2000. Bonn. 2000.
- BROOKE, Rory; FARROW, Lucy; OPENSHAW Greg; SCOTT Gort; SCOTT Fiona; DRAKE Gemma; HARRIS Rob; RAMANANDI Raj: Supporting Places of Work: Incubators, Accelerators and Co-working Spaces. On behalf of the Great London Authority. London, 2014. Online: https://www.london.gov.uk/sites/default/files/supporting_places_of_work_-_iacs.pdf, 14.01.2016.
- DANGSCHAT, Jens S.: Social Cohesion – eine Herausforderung für das Wohnungswesen und die Stadtentwicklung?. In: vhw Forum Wohneigentum, 1/2011. S. 3-8. 2011.
- DUGGAN Louise: 'Economy of High Streets' in: MAYER Alison, FINN Williams (eds.): Learning from London's High Streets. London 2014.p. 14-17. Online: https://www.london.gov.uk/sites/default/files/gla_migrate_files_destination/GLA_180714_v2.pdf, 25.03.2016.
- FERM, Jessica: Delivering affordable workspace: perspectives of developers and workspace providers in London. Progress in Planning. Volume 93, October 2014, p. 1-49. Online: <http://www.sciencedirect.com/science/article/pii/S0305900614000361>, 14.01.2016.
- FORLATI, Silvia: Innovation in Collective Housing. Theory/ Practice/ Guidelines. Dissertation an der Technischen Universität Wien. 2013.
- FORLATI, Silvia: Geschoßwohnbau im Wandel: Ein Überblick. In: Wipfel, Jörg (Hrsg.): Wohnbaukultur in Österreich. Geschichte und Perspektiven. Innsbruck / Wien / Bozen: Studien Verlag, S. 40-46. 2014.
- GEELS, Frank W.; SCHOT, Johan: Typology of sociotechnical transition pathways. Research Policy (36): 399-417. 2007.
- Gemeente Amsterdam: Herzien Amsterdams Atelier- en Broedplaatsenbeleid 2015 – 2018. 11 februari 2016. Online: <https://www.amsterdam.nl/gemeente/organisaties/organisaties/bureau-broedplaatsen/beleid-doelen/>, 25.03.16.
- Greater London Authority, in collaboration with Capital Enterprise: Creating Open Workspaces. Regeneration Guide #2. July 2015. Online: https://www.london.gov.uk/sites/default/files/regeneration_guide_2_-_creating_open_workspace.pdf, 20.12.2015.
- GUTHEIL-KNOPP-KIRCHWALD, Gerlinde; KADI, Justin: Gerechte Stadt - gerechte Wohnungspolitik? In: Der öffentliche Sektor - The Public Sector, 3-4, p. 11-28. 2014.
- HALL, Peter: Good Cities, Better Lives: How Europe Discovered the Lost Art of Urbanism. New York 2014.
- IBERT, Oliver: Innovationsorientierte Planung. Verfahren und Strategien zur Organisation von Innovation. Band 19 Stadt Raum Gesellschaft. Opladen: Leske + Budrich. 2013.
- KADI, Justin; MUSTERD, Sako: Housing for the poor in a neo-liberalising just city: Still affordable, but increasingly inaccessible. Tijdschrift voor Economische en Sociale Geografie. 2014.
- Klima- und Energiefonds (KLIEN): Smart Cities – intelligente Städte in Europa. 2015. Online: <http://www.smartcities.at/stadtprojekte/smart-cities>, 15.02.2016.
- KUNNERT, Andrea : Vom Recht auf Wohnraum – Definitionen von "leistbar Wohnen" und Leistungsindikatoren in Österreich. In: WIPPEL, Jörg (Hrsg.): Wohnbaukultur in Österreich. Geschichte und Perspektiven. Innsbruck / Wien / Bozen: Studien Verlag, S. 25-34. 2014.
- LÖW, Martina: Raum ergreifen. Alleinwohnende Frauen zwischen Arbeit, sozialen Beziehungen und der Kultur des Selbst. Bielefeld: Kleine. 1993.
- MACCREANORLAVINGTON, PETER BRETT ASSOCIATES, HARRINGTON Graham: Accommodating Growth in Town Centres. Achieving successful Housing Intensification and High Street diversification. London, July 2014. Online: https://www.london.gov.uk/sites/default/files/gla_migrate_files_destination/AccommodatingGrowthInTownCentres2014_2.pdf, 12.12.2015.
- TAMMARU, Tiit; MARCIŃCZAK, Szymon; HAM, Maarten van; MUSTERD, Sako (eds.): Socio-Economic Segregation in European Capital Cities. East meets West. New York: Routledge. 2016.

- NEDDEN, Martin zur; BUNZEL, Arno; PÄTZOLD, Ricarda; STRAUSS, Wolf-Christian; SPARS, Guido; BUSCH, Roland; HEINZE, Michael; MÜLLER, Anja: Nutzungsmischung und soziale Vielfalt im Stadtquartier- Bestandsaufnahme, Beispiele, Steuerungsbedarf. Berlin 2015. Online: [http://www.difu.de/projekte/2014/nutzungsmischung-und-soziale-
vielfalt-im-stadtquartier.html](http://www.difu.de/projekte/2014/nutzungsmischung-und-soziale-vielfalt-im-stadtquartier.html). 19.03.2016.
- PEER, Christian: Postmoderne und neoliberale Strukturen im Stadtteil. In: Martina Nußbaumer et al. (Hrsg.): Besetzt! Kampf um Freiräume seit den 70ern. Wien: Czernin Verlag, S. 33-37. 2012.
- PEER, Christian: Stadtalltag als Labor. Forschungsperspektiven zur Koexistenz internationaler Verflechtungen und lokaler Wissenskulturen im Rahmen von Urban Living Labs. In: ÖGS (Hrsg.): Sammelband ÖGS-Kongress 2015, Innsbruck. 2016.
- PITTINI, Alice: Housing Affordability in the Eu. Current situation and recent trends. Cecodhas Housing Europe's Observatory. Research Briefing. Year 5 / Number 1, January 2012. Online: [http://www.housingeurope.eu/publication/research-
briefings](http://www.housingeurope.eu/publication/research-briefings), 20.12.2015.
- PITTINI, Alice; GHEKIÈRE Laurent; DIJOL Julien; KISS Igor: The State of Housing in the EU. Brussels, 2015. Available online: www.housingeurope.eu, 12.01.2016.
- POT, Mirjam: Amsterdam's creative breeding places. Similarities and differences regarding motivations, goals and practices of different actors engaged in the realisation of broedplaatsen. Master thesis (GEO4-3313). Urban Geography, Faculty of Geosciences, Utrecht University. August 2011.
- RAMMERT, Werner: Innovationen - Prozesse, Produkte, Politik. In: Technik und Gesellschaft Jahrbuch 9. Frankfurt am Main: Campus. S. 7-14. 1997.
- SCHNELL, Rainer; HILL, Paul B.; ESSER, Elke.: Methoden der empirischen Sozialforschung. München: Oldenbourg Wissenschaftsverlag. 2011.
- SERVILLO, Loris A.; VAN DEN BROECK, Pieter : The Social Construction of Planning Systems: A Strategic-Relational Institutional Approach. *Planning Practice & Research*, 27 (1), p. 41-61. 2012.
- Stadt Wien: Smart City Wien Rahmenstrategie. Wien: Magistrat der Stadt Wien. 2014.
- Stadt Wien: Resumeeprotokoll der Sitzung des Preisgerichts vom 22.-23.10.2012. Online: <http://www.architekturwettbewerb.at/competition.php?id=962>. 3. 2. 2014.
- Statistik Austria: Bevölkerungsprognose 2013. 2013. Online: http://www.statistik.at/web_de/statistiken/bevoelkerung/demographische_prognosen/bevoelkerungsprognosen. 3 .2. 2014.
- TU Wien: Forschungs- und Entwicklungsprojekt Mischung: Possible!, 2016 Online: <http://wohnbau.tuwien.ac.at/index.php?id=442>, 28.03.2016.
- WIELAND, Andreas: Projektentwicklung Nutzungsgemischter Quartiere. Analyse zur Generierung von Erfolgsfaktoren. Wiesbaden: Springer VS. 2014.