Don't ask permission: live/work

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Abstract: This paper revises the multi-level perspective to analyse policy innovations within urban transitions. This investigation is concerned with demonstrating how live/work accelerates as a sustainability transition and which governance structures, approaches to planning, and actors influence the process. To analyse the trajectory of live/work, documentation, interviews, direct observation, and physical artefacts were used as data collection methods. Four case studies (San Francisco, Oakland, Vancouver, and Melbourne) provide different geographical, political, and cultural contexts. This research highlights the significance of landscape and regime actors in analysing transitions from a niche perspective. It finds that rigid and top down governance structures are less flexible and open to change, political approaches to planning are less responsive and adaptive, and strong political actors have the ability to either initiate or inhibit change. The application of sustainability transition theories, particularly the multi-level perspective, to the adoption pathways for live/work policies in four cities provides a framework within which to analyse the different pathways.

Introduction

Since the beginning of the twentieth century, single-function buildings have been favoured by zoning laws, building codes, and lending policies, which were supported by legally enforced separated zoning for *work* and *live* uses, resulting in urban monoculture (Davis 2012; Alexander et al 1977). Live/work has the potential to contribute positively to a city at the neighbourhood scale (Newman and Jennings 2008) from multiple perspectives, including social, economic, and cultural, as well as environmental (Friedman 2012). When the contemporary live/work movement got traction, beginning with the artist loft movement, challenged the current planning system in the 1980s and 90s, it was presented as a new phenomenon, rather than as a reincarnation of an age-old building type (Hollis 2015). Zoning for new projects have distanced themselves from traditional approaches, even with a century of functional separation of uses in planning (Davis 2012).

This paper uses the example of live/work as a niche innovation within urban planning to develop a framework for analysing the transition process of policy innovations within urban transitions. The aim of this research is to explore live/work as a niche and its potential to act as a small-scale intervention to influence or encourage change. Was live/work rejected, not accepted, or never considered? Was live/work promoted, prevented, or was there silence on the issue? Using a multi-level perspective approach (Geels 2002) for urban transitions, the unit of analysis for the research is the process of acceleration of live/work as a niche innovation within different cities. This investigation is concerned with demonstrating how live/work, as a sustainability transition, accelerates and which governance structures, approaches to planning, and actors influence those processes. The different transition pathways of live/work policies are understood by examining the regime conditions and rules.

The paper will first provide a background to the theories and concepts discussed. Then, the methodology for the research is outlined, including the development of a conceptual framework. This is followed by the results of the application of the new conceptual framework using live/work policies in San Francisco, Oakland, Vancouver, and Melbourne. Finally, the paper ends with a discussion on the theoretical and practical applications of this research. It is identified that the adapted multi-level perspective provides a way to explore the impact of governance structures, approaches to planning, and agency of actors on the acceleration and trajectory of live/work as a niche innovation. It also contributes to the process of identifying and highlighting key barriers and success factors in the adoption or failure (possibly only temporary) of these innovations.

Live/work & urban planning

The building type that combines dwelling and workplace is a very common, but an often overlooked typology (Davis 2012; Hollis 2008). Previously, combined dwellings and workplaces were occupied out of necessity, where the distinction between dwelling and workplace was not a firm one (Davis 2012). Prior to the industrial revolution, 'house' was a universally used term for buildings that combined dwellings and workplaces, with sub-sets such as 'ale-house', 'bake-house', 'counting-house', etc. (Hollis 2015; Davis 2012). In China and Southeast Asia, the term 'shophouse' is used (Davis 2012; Davison & Invernizzi 2010), in Italy both the *palazzo* and the *insulae* accommodated dwellings and workplaces in the same structure, and in Northern and Western Europe terms such as the *laenge* in Denmark, the Amsterdam canal house, and the Lübeck merchant's house in Germany were used to define this phenomena (Davis 2012). In the 1970s, 'live/work' was used to describe the

emerging trend of artists' loft spaces in New York (Dolan 2012; Hollis n.d.). This trend emerged in San Francisco a decade later, and by the 1990s most cities in North America had converted loft districts where people were potentially living and working (Dolan 2012). In the absence of any other name, live/work began to be used as a generic term for buildings that combined dwelling and workplace (Hollis 2015). For this paper, live/work will be used to refer to combined dwelling and workplace in a single unit or property. This definition recognizes that the unit or property is mixed-use, and supports the dynamic and adaptable nature of the functions over space and time.

Planning legislation that allows for combined dwelling and workplace employ terms such as mixed-use, home occupation, and live/work or work/live to categorise or legalise the combined arrangement (Davis 2012; Dolan 2012). Mixed-use blends residential, commercial, cultural, institutional, and where appropriate, industrial uses together (APA n.d.). Combined dwelling and workplace are inherently mixed-use (Davis 2012; Dolan 2012); yet they do not represent all mixed-use developments, they are simply a type of mixed-use. Home occupation refers to the right to pursue small-scale work activities at home. These types of arrangements are mostly known as a 'home office' or 'working from home,' and usually have restrictions on employees and whether commercial/client visits are permitted (Dolan 2012). Live/work signifies that the dwelling is the primary use of the building or unit, and work/live means the needs of the work component take priority (City of Vancouver 1996). In planning legislation, live/work is often associated with residential and mixed-use zones and codes, whereas work/live is associated with commercial, industrial, or mixed-use zones and codes (Dolan 2012). "In this paper, live/work is defined as a combined dwelling and workplace in a single unit or property. This definition recognizes the unit or property is mixed-use, and supports the dynamic and adaptable nature of the functions over space and time.

Live/work occupiers

The 1950s and 60s in North America and Western Europe was an important time for art; changes is style, production and consumption of art transformed the life of artists (Zukin 1982). As a result, live/work artist studios began popping up (Christiaanse 2012). "Artist have always needed a place to work, and the studio is that space" (Pratt 2012, p. 26), and they "do not generally differentiate between their work and domestic lives" (Hollis 2015, p. 84). The early versions of these live/work spaces were created within old warehouses, where access to light, space, and robust materials together with affordability co-existed. However, these artists did not ask for permission from the government, or even at times from the buildings' owners to inhabit these spaces. Eventually, Zukin (1982) argued that the artist live/work arrangements had to be institutionalized, because "no market could firmly be established if tenants ran the risk of being evicted from their [homes]" (p. 11). This process involved many players and changes to legislation.

The early adopters of the contemporary live/work movement were artists and makers (Dolan 2012). Overtime, and in conjunction with the live/work movement, the definition of artist evolved to encompass all creative pursuits including writers, filmmakers, musicians, photographers, and designers of all type. The appeal of the live/work concept for many artists is lifestyle. The proximity, and often, blending of home and work life suits a number of people in the creative industries (Dolan 2012). A number of smaller architectural firms are taking advantage of live/work. The combined dwelling and workplace accommodates their varied and often intense workload, as well as providing a live example of their work and design philosophy (Davis 2012).

Another group that have taken advantage of live/work dwellings are entrepreneurs and the self-employed, because it can accommodate those who engage in contract work and have tight deadlines. The availability and affordability of computers, the advances in telecommunications, and tax deductions for home offices have made the live/work concept a practical and economic alternative for many (Friedman 2012; Gurstein 2001). Live/work is valid for anyone working from home or who may have irregular work hours, including 'white collar' consultants, tradespeople, health and beauty services, and mail/internet order businesses (Hollis 2015; Gurstein 2001). Others, whose occupations, like artists and traditional live/work professions, necessitate long hours to acquire enough income to survive. These may come in the form of small retail businesses such as milk bars, produce shops, and cafes that rely on neighbourhood support.
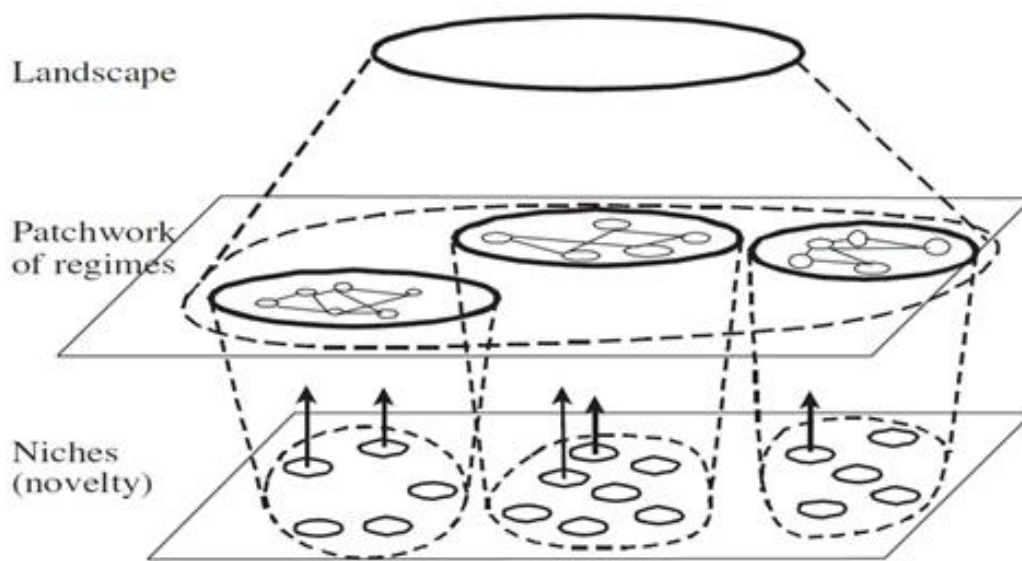
Sustainability transitions

Sustainability transitions investigate the processes by which innovations in socio-technical systems, arising in niches, displace existing dominant or mainstream technologies. Sustainability transitions are the transformations by which innovations related to sustainability practices, policies or technologies are adopted more broadly. They are co-evolutionary in nature, and involve a board range of actors

(Loorbach 2004). A way to investigate sustainability transitions is through the multi-level perspective approach. Similar to structuration theory that seeks to explain the intersections between humans and wider systems and structures in which they are implicated (Giddens 1984). The multi-level perspective suggests three levels to aid in understanding transitions: landscape (macro-level), regimes (meso-level), and niches (the micro-level) (Geels 2002).

Figure 1, shows that the multi-level perspective (MLP) can be understood as a nested hierarchy (Geels 2002). The nested character of the levels demonstrates that regimes are embedded within landscapes, and niches within regimes (Geels 2002). Landscapes influence change both on niches and regimes; in return, niches (may) change the regimes, and a new regime (may) change the landscape in the longer term (Twomey and Gaziulusoy 2014). One of the strengths of the multi-level perspective is that transitions are viewed as non-linear processes (Geels 2011). Transitions can be explained by the interplay of stabilising (and in some cases resisting) mechanisms at the regime level, combined with destabilising pressure from the landscape and radical innovations at the niches (Markard and Truffer 2008).

Figure 1 Multi-level Perspective as a Nested Hierarchy (Geels 2002, p. 1261)

Arguably sustainability transitions are normally applied to socio-technical transitions (Markard et al 2012); for this research the MLP approach was adapted to investigate urban transitions. In contrast, Davoudi et al (2013), Gallopin et al (2001), and Smith and Stirling (2010) have argued that cities are more suited to a social-ecological systems framework than to a socio-technical one, as they are complex, dynamic, multi-scale, and adaptive. Social-ecological systems are the natural analytical unit for sustainable development, as they are situated within a spatial context such as a watershed, rangeland, forest, or region. Viewed this way, the city is an integrated system (Pickett et al 2003). There has been some debate regarding the applicability of transitions theories to social-ecological systems (Olsson et al 2014; Smith and Stirling 2010). However, Geels (2005) argued that like social-ecological systems, socio-technical transitions do not separate humans from technology, but rather it is with human association and agency that artefacts fulfil functions, and new technologies can involve cultural changes. Viewing transitions this way sees human agency as an internal part of the system and its dynamics (Folke 2006). Therefore, this research proposes investigating urban transitions through the framework of social-ecological systems.

To do this, the three levels have been modified to reflect a city: the landscape becomes the city, the regime urban planning, and niches vary depending on urban planning practice or city context, see Figure 2. The city, as the landscape, is relatively static and cannot be easily changed by actors in the short term. The landscape embodies the physical, technical, and material setting that supports the city as a system. The landscape level of investigation includes the overall setting and relevant history of each place, including the political contexts and governance models, the economy, and the cultural patterns and dynamics. Within the city context, the regime is represented through planning (and government). Therefore planning, as the regime, is concerned with the structure, current practices, dominant rules (including zoning and building codes), and routines of the city. Niches, as small-scale interventions and radical innovations, can influence transformation, and represent experimentation.

The niche may change the regime, and a new regime may change the landscape over the long term. The purpose of the niche level investigation is to explore its interaction with the regime and landscape.

Figure 2 Multi-level perspective as a nested hierarchy for urban transitions
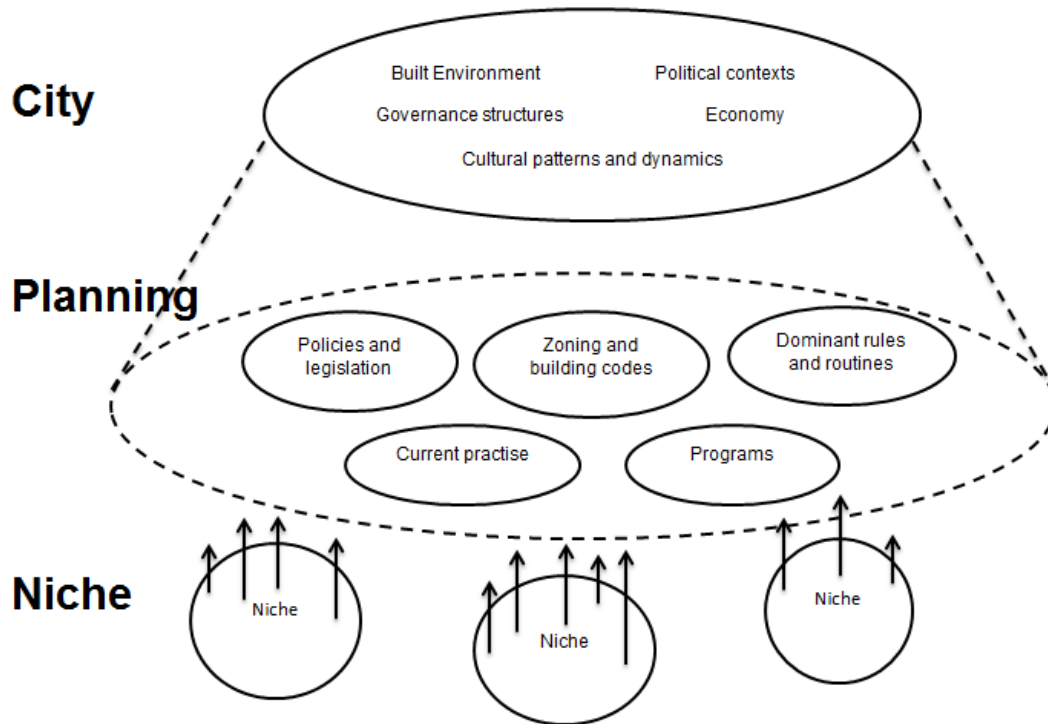
Methodology
This research uses an embedded multiple-case study approach with a theoretical replication design; each individual case has the same central theoretical framework and the same units of analysis applied to it. This approach was chosen to explore contrasting results (Yin 2009) in different cities. The aim of the case studies is to examine live/work in four cities, and identify the process of adoption or transition of a niche innovation to a mainstream or regime policy. This research uses the multi-level perspective for urban transitions to provide a structure to investigate the trajectory and acceleration of niche innovations within different cities. This structure highlights the reliance on governance structures, approaches to planning, and actors to influence the transition process. The analysis will then draw upon political theoretical frameworks.

Live/work was chosen as a niche innovation within urban planning because it interacts across different scales and phenomenon with both the ecological and social aspects of cities. It can be viewed as a niche innovation within an urban planning regime because live/work is still far from widespread in urban planning systems globally. The four case study cities are San Francisco, Oakland, Vancouver, and Melbourne. The North American cities were selected because of their history and practice surrounding live/work; they each have a history of both traditional and contemporary live/work, as well as supporting policies and legislation. San Francisco represents one of the first formal contemporary iterations of live/work in the 1980s following the movement in New York in the 1960/70s, and Oakland and Vancouver represent the next wave (Christiaanse 2012; Dolan 2012). Melbourne provides an example of a city that has not yet formalized live/work as a land use or building typology.

The unit of analysis for the research is the process of acceleration of live/work as a niche innovation across four different geographical, political, and cultural contexts. To do this, a multi-level perspective was applied to live/work. To analyse the trajectory of live/work as a niche innovation within each city, documentation, interviews, direct observation, and physical artefacts were used as data collection methods. Documentation in the form of policy research was used as the primary method (including each city's strategic planning documents, the government and planning departments websites, relevant sustainability and resilience policies, and live/work policies and legislation), and was accompanied by formal academic studies of the cities, government and administrative material, media sources, and project information. Semi-structured interviews with one or two planners, two architects, one developer or builder, and two occupiers of live/work were conducted in each city, as well as an

interview with a professor with expertise in live/work in Vancouver and the Bay Area. Direct, unstructured observation in each city, and live/work units and developments served as physical artefacts. Fieldwork was undertaken in September 2012, December 2014, and January 2015.

Findings
The development, evolution, and future prospects for live/work policies and practices, as niche innovations, were investigated within each case study city.

San Francisco
San Francisco has a long history as the major west coast financial centre in the U.S, and as a major centre for economic trade. A place known for its artist, entrepreneur, and adventurist culture, San Francisco was once considered a model in its approach in the provision of artist live/work spaces. The city is also home to dot-com and tech businesses; a group that also took advantage of live/work units to grow their businesses. As a magnet for counter culture and innovation, San Francisco attracts a lot of people and money to the city, although not permanently. Until recently, the city's population was relatively stagnant. San Francisco is governed as a consolidated city-county where the mayor acts as County Executive, and the City Council as the Board of Supervisors(City and County of San Francisco - Government n.d.). San Francisco is a charter city, meaning it is governed by its own charter, rather than by state or federal laws, and operates within a strong-mayor system (City and County of San Francisco - Planning n.d.). These designations allow the City to make decisions and create their own laws Supervisors.

San Francisco's Board of Supervisors passed the Live/Work Ordinance in 1988 (Barshak 2013), which sought to legitimize non-normative working and living arrangements for artists and later for those is the tech industries (Lees, Slater, Eyly 2013). Initially the live/work units were developed by converting existing buildings, and permission from the city was relatively easy to receive, as long as the rules were followed (Holliday 2013, pers. Comm., 9 September). Over time, with more interest in live/work developments and concern over the loss of industrial buildings, the city extended the ordinance to commercial properties and new-construction. But by the mid-1990s, new-construction live/work began to outpace conversions. The city did not anticipate or plan for developers flooding the market and the increased vulnerability of certain communities.

Protests, anti-displacement efforts such as the Ellis Act, and the election of new Board of Supervisor positions, led the mayor to impose a ban on most live/work construction in 2001 (Lees, Slater, Eyly 2013; Roschelle and Wright 2004; San Francisco Board of Supervisors n.d.). This was possible due to the strength of the mayor's position. Since 2001, any live/work development application is reviewed on a case-by-case base with a stricter definition of live/work and more rigorous permitting process (SF Planner 2 2014, pers.comm., 10 December). San Francisco was one of the first to implement live/work legislation in the US. However, there was not much in the way of reflection and evolution of the policies. When the legislation was no longer functioning in the way it was intended to, the City essentially put a stop to any future live/work projects.

Oakland
The City of Oakland is governed by a mayor-council form of government, and functions within the regular US framework of multiple levels of government, which includes municipal, county (Alameda County), and state (California) (Alameda County 2015). Historically, Oakland was a politically conservative city, but during the 1950s and 60s and the rise of social activists, Oakland's political leanings shifted significantly. Today it is one of the most liberal cities in the US with a strong local culture and a diverse population. Economically, the city's top industries are in science and technology, trade and logistics, and the creative arts (Oakland Chamber of Commerce 2012). Oakland has been voted by several publications as one of the hottest up and coming start-up markets.

Oakland's planning department is fairly small, but is receptive and tries to leave some policies open for interpretation. For example, the flexible home-occupation regulations allowed initial live/work projects to take form in Oakland (Dolan 2013, pers. comm., 12 September). Oakland's first formal live/work building, an artist live/work conversion, was developed in 1985 (Dolan 2012). Five years later in 1990, the city approved its first non-artist new-construction live/work development (Dolan 2012). Oakland finally adopted the Oakland Live/Work Building Code in 1996, once there was enough examples from which to learn. This legislation opened up and formalized live/work development opportunities, which led to a variety of types, including rental and ownership options. Live/work is an intervention that connects multiple departments and policies used by the City. The City believes that live/work projects

have the ability to support economic development initiatives, as well as goals from the Climate Action Plan (Oakland Planner 2014, pers. comm., 11 December).

Oakland's regulations provide a useful model for converting existing buildings into live/work. Oakland encourages the adaptive re-use of existing buildings, and advocated for mixed-use developments and neighbourhoods. Live/work conversions in older buildings have been successful in a number of neighbourhoods, and have even been written as a goal in the Estuary Plan as part of the City's General Plan. The formalization of live/work has provided both the City and developers guidance during the application process. However, almost twenty years since Oakland's legislation was approved, the City is reviewing its policies given the current context of live/work within the city. The planning department wants to find the right approach and placement for new-construction live/work, as well as redefine live/work and work/live. While this is high on the departments' list of priorities, because it is a relatively small team, it has yet to be finalized (Oakland Planner 2014, pers. comm., 11 December).

Vancouver

The City of Vancouver is governed by a mayor and city council, and regulated by the Vancouver Charter. Its charter city status means that it does not need to prepare an official community plan (strategic planning document), which all other municipalities in British Columbia are legislated to do. As a result, Vancouver approaches planning from a neighbourhood versus whole city scale. The City has a strong belief in separating politics from planning, therefor decisions regarding major re-zonings and redevelopments are delegated to the Development Permit Board (a technocracy chaired by the Director of Panning), and not by council. Vancouver's largest sectors are forestry and mining (headquarters), knowledge and creative industries, and it is home to Canada's largest port.

After artist protests in the mid-1980s, the City in collaboration with local artists and architects developed a series of relaxations on zoning and building codes to allow dwelling units in conjunction with artist studios (M. Ostry 2015, pers.comm., 9 January). The original live/work projects were intended for artists, but became very popular with technology-based fields of the new economy, especially new media. Non-artist live/work was introduced around the time of Vancouver's Living First Strategy, which was adopted in the early 1990s by City Council for the Central Area Plan. The City decided to experiment with mixture of uses such as artist studios and live/work, and in 1995 City Council approved the changes to permit non-artist live/work (City of Vancouver 1996). In practice the City pursued live/work developments for the minimization of travel time, as well as supporting artists, artisans, and small businesses. In 2006, Council adopted new Live/work Use Guidelines that are still in operation today.

However, at the end of the 2000s, Council put a hold on most new live/work developments. This was as a result of two main challenges (Vancouver Planner 2015, pers.comm., 8 January). First, the move from rental to ownership meant that more people are living in their units and not living and working, and the City wants to protect their limited commercial and industrial spaces. Second, the way taxes are assessed in the province means that marketplace live/work units are assessed as residential (highest assessment value), but taxed as commercial (highest tax rate). In the case of live/work in Vancouver, rental has been much more resilient, than its marketplace counterpart because the owners tend to absorb the taxes and build it into the rent (Vancouver Planner 2015, pers.comm., 8 January).

Melbourne

Rather than have one primary city within a metropolitan or regional area, there are 31 Local Government Areas (LGA) in Metropolitan Melbourne, and each LGA is governed by a mayor and council (DTPLI 2015). Metropolitan Melbourne is a geographic designation, rather than a regional level government authority. As of 2014, planning is administered by the Victorian State Government through the Department of Transport, Planning and Local Infrastructure (DTPLI) under the guidance of the Minister of Planning. DTPLI provides statutory and strategic guidance on planning, while the LGAs are responsible for issuing planning permits and administering the planning scheme. The Planning Minister is the responsible authority for specific areas, and a number of statutory authorities report to the Minister, including the government's development and building regulation agencies (DTPLI 2014). The region's economy is supported by the Port of Melbourne, the largest in the country, its manufacturing industries, professional services, and health, education, and social services (Victorian State Government 2014).

Unlike the other case study cities, there is no live/work or work/live legislation in the state of Victoria. Under the current residential and mixed use zones, home occupations are permitted in Metropolitan

Melbourne, as long as they do not disturb the surrounding neighbours. Home occupation is defined as an occupation carried out in a dwelling or on the land around the dwelling by a resident of the dwelling. The Planning Scheme rules are the same for running a business out of a rental property, or in an owner occupied property, although individuals need to refer to their lease agreement or owner corporation's rules (City of Melbourne n.d.). Within the Victorian Planning and Environment Act 1987 (version incorporating amendments of 20 May 2013), residences for an occupier or caretaker of the shop, office, warehouse or factory is permitted, but these spaces fall outside of the definition of dwelling.

Melbourne also has artist communities blurring the boundaries of combining their living and working spaces for decades, although informally. These spaces fall along the spectrum or lower rent artist spaces in warehouses, to polished tech-focused live/work spaces with commercial leases. More recently, there have been discussions in newspapers, blogs, and public forums regarding spaces for artists in Melbourne, and people living, and living and working in warehouses. It is yet to be seen whether the interest and momentum from the bottom will interact with, and possibly join the regime.

Results

The aim of this research was to demonstrate how live/work, as a sustainability transition, accelerates and which governance structures, approaches to planning, or actors influence those processes. It has identified that rigid and top down governance structures are less flexible and open to change, political approaches to planning are less responsive and adaptive, and strong political actors have the ability to either initiate or inhibit change. Collaboration and experimentation with technical skill has shown to support not only the acceleration of niche innovation, but also the ongoing trajectory.

Table 1 Case study conditions

	San Francisco	Oakland	Vancouver	Melbourne
Governance structure	Consolidated city-county Charter city	Municipal Multi-level structure (municipal, county, and state)	Municipal Multi-level structure (municipal, metropolitan, and province) Charter city	State Multi-level structure (Local Government Area and State)
Planning approach	Political	Consultative Flexible	Technocratic Responsive	Political
Actors (initiators)	Artists Developers Board of Supervisors	Artists Planners	Artists Architects City Council	
Actors (inhibitors)	Artists Mayor		City Council	Planners

Live/work practices, as niche innovations, developed initially informally in artist communities and in under-used or neglected buildings or precincts. These locations acted as protective spaces and creative innovation niches in which practical approaches and subsequent policies were first tested and developed. This research has identified the changing demographic in cities (and in some cases gentrification and exclusion of the original artist communities) as one of the factors leading to the withdrawal of city policy support for live/work practices. There is a "tendency for artists and creative workers to be used instrumentally in urban regeneration schemes" (Pratt 2012, p. 30). This was the case in San Francisco, and to some extent in Vancouver. New legislation was created for the formalization of artist spaces, but it eventually benefitted wealthy, non-artists, and in the process transformed these areas into middle-class residential neighbourhoods (Pratt 2012; Zukin1982). In Vancouver, the City responded by establishing three different live/work types (artist, commercial, and industrial), as well as providing incentives for rental developments, including some specifically for artists. Oakland has also pushed for more rental and affordable live/work spaces for artists, and proposed that developments need to address specific considerations based on the demographics and provision of employment and services in different areas. In Melbourne, gentrification has taken place in areas where artists were located, but because there is no live/work legislation and not much support or protection for artist spaces, the change is potentially not as noticeable.

The different transition pathways of live/work policies in the three cities, as illustrated in Figure 3, can be understood by examining the regime conditions and rules. Live/work in San Francisco accelerated and joined the regime, only to be discarded when it could not be fully controlled. The trajectory of live/work in Oakland was slower than in San Francisco, but live/work was finally incorporated into urban planning and continues to grow within the city. Live/work in Vancouver accelerated and joined the regime, but is currently in a state of stagnation, partly due to barriers from the provincial government. Lastly, in Melbourne live/work has not yet joined the regime, but there is interest.

Figure 3 Trajectory of Live/Work in each Case Study
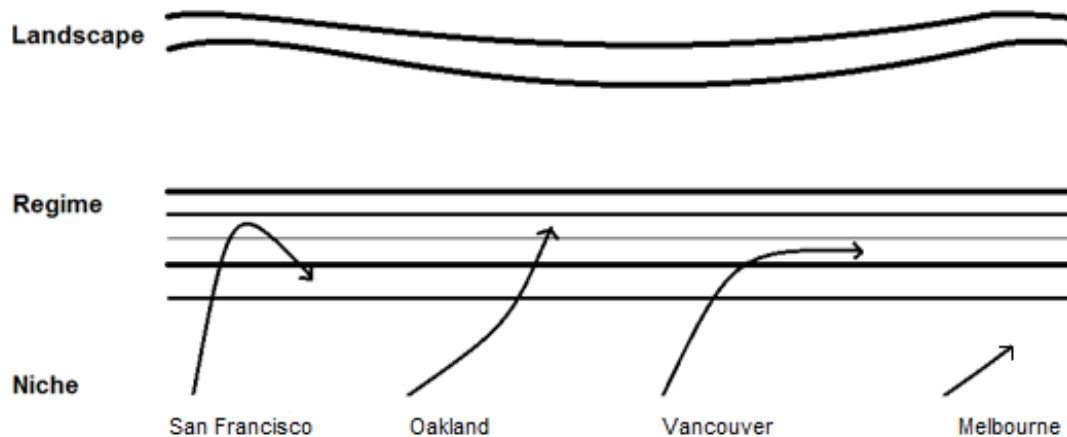
The different structures of governance and approaches to planning highlight the significance of the landscape level and regime actors in analysing transitions from a niche perspective. Table 1 highlights the particular conditions of each case study. Both San Francisco and Melbourne's approaches to planning are top-down and political with either the Mayor and County Executive or the Planning Minister with the ability to override decisions. In San Francisco it allowed for a relatively quick legalization of live/work, but also meant the mayor could remove or place a ban upon live/work when it was no longer performing its intended function. For Melbourne, it has meant no change at all, even if there is desire or interest from individuals or councils. In contrast, Vancouver and Oakland have a more reflective and collaborative approaches, which has enabled live/work policies be introduced, but also to evolve and adapt.

Conclusion
This research has analysed the policy adoption or transition pathways of live/work in San Francisco, Oakland, Vancouver, and Melbourne. The application of sustainability transition theories, particularly the multi-level perspective, to the adoption pathways for live/work in the four cities provides a framework within which to analyse the different pathways. The four case study cities are all located within complex governance structures with multiple scales of government authorities, and multiple layers of decision-making, regulations and policies. This research has identified that rigid and top down governance structures are less flexible and open to change, political approaches to planning are less responsive and adaptive, and strong political actors have the ability to either initiate or inhibit change. Meanwhile, collaboration and experimentation with technical skill support not only the acceleration of niche innovation. This reinforces the call for research that considers power within transitions. The experience of live/work as a niche in each case study provides insight into the processes of acceleration across the different geographical, political, and cultural contexts. This research contributes to the development and adoption of live/work policies in other cities, or to the development of other niche innovation land use policies.

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