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WASTED? MANAGING DECLINE AND MARKETING DIFFERENCE IN THIRD TIER CITIES

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Abstract: Third-tier cities are neglected in the research literature. Global and second-tier cities provide the positive, proactive applications of city imaging and creative industries strategies. However, small cities – particularly those who reached their height and notoriety through the industrial revolution – reveal few strategies for stability, let alone growth. This study investigates an unusual third-tier city: Oshawa in Ontario Canada. Known as the home of General Motors, its recent economic and social development has been tethered to the arrival of a new institution of higher education: the University of Ontario Institute of Technology. Yet this article confirms that simply opening a university is not enough to commence regeneration or renewal, particularly if an institution is imposed on unwilling residents. Therefore, an alternative strategy – involving geosocial networking – offers a way for local businesses and organizations to attract customers and provide a digital medication to analogue injustice and decay.

Key Words: *third-tier cities, creative industries, city imaging, regeneration, geosocial networking*

Introduction

Discovering new places is always unpredictable. Arrival is signaled by signs that mark, orient and organize a relationship between identity and location. Street signs, buildings and roads provide a shape and structure – spatial punctuation – so that familiar elements can be recognized. Footpaths and car parks are found. But there are also visual detours and iconographic accidents that confirm the shock of difference in supposedly globalized urbanity.

When I arrived in Oshawa, a small city on the outer edge of Toronto, a visual companion guided me through this urban space. This person's name was Wasted (Fig.1). Wasted left tags throughout the downtown. Fixated on the vacant space next to the retirement village (Fig.2), Wasted also tagged bordered up shops to remind downtown Oshawa residents that there are many spaces underappreciated and – indeed wasted (Fig.3).

Fig. 1 - **Wasted**
Photograph by Tara Brabazon

I do not know Wasted's real name or gender. What I do know is that he or she provides an innovative if illegal method to read the landscape, offering alternative literacies of space and

place (Gregory and Williams 2002). This article follows Wasted, literally and theoretically. My goal is to explore the gap between difference and decay - regeneration and decline - in third tier cities. Particularly, I overlay the potential of city imaging via geosocial networking strategies, while also logging deep infrastructural difficulties. Frequently positioned at the edge of global cities and reaching their economic peak in the late nineteenth and twentieth centuries through the success of a single manufacturing industry, third tier cities lack attention in the research literature on urban development. They do not provide easy opportunities, examples or applications for creative industries strategies. An outstanding exception to my statements here is Mark Jayne's study of Stoke, which demonstrates the failures in a glib application of creative industries strategies that have operated effectively in global and second tier cities (Jayne 2004).

Fig. 2 - **Wasted Space**
Photograph by Tara Brabazon

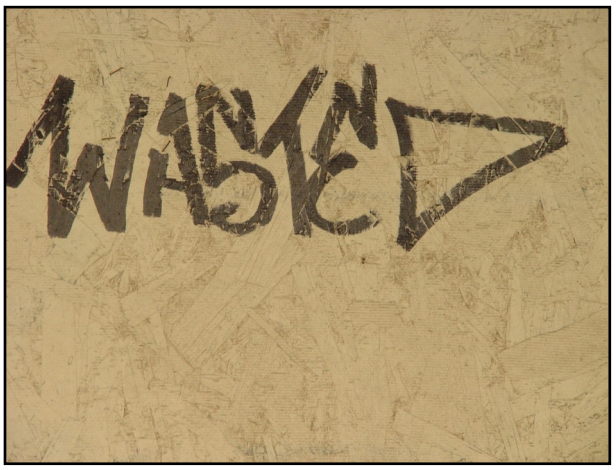


Fig. 3 - **Closed Space**
Photograph by Tara Brabazon

Picking up Wasted's trajectory and intent, my article explores city imaging for third tier cities, with specific attention to the distinct and particular benefits of geosocial networking, even amidst the failure of physical infrastructure. The study commences with national imaginings, drilling down to city imaging initiatives, through to a focus on the third tier and geosocial networking. A key example remains Oshawa, located just outside Toronto in Canada. It is an industrial city losing its historical role and yet unable to claim a new identity and path.

Imaginings

Nations are complex imagined communities (Anderson 2006). Postcolonial nations in particular confront challenges in reclaiming the languages, faiths, structures and traditions burnt and destroyed by the colonizers (Nandy 1983, Prakash 1995, Said 1978, Spivak 1988, Spivak 1990). Canada's imaging is rendered more intricate and contradictory through the management of the dual (and dueling) colonizations of the United States and the United Kingdom. Theories of whiteness in settler societies with a history of dispossession of indigenous people, like Canada, Aotearoa/New Zealand and Australia, are particularly volatile. Being both colonized by the British and colonizing indigenous peoples creates volatility in the construction of identity and history (Young 1990). In postcolonial countries, the nation is a structure, boundary and ideology. It operates as a node of resistance, creating policies that support and protect cultural

industries such as music, film and television. This process of protection of cultural productions can be valuable but may also produce extremely conservative results. Patriotism can spill into xenophobia. Such national imaginings also wallpaper over destructive internal differences. The divisions between east versus west, north versus south, Toronto versus the rest, render the landscape ideologically volatile. Creating a sense of being and identity is intimately connected with place. Each location enables particular geopolitical strategies that frame behavior, subjectivity and daily patterns of movement, including socializing, producing, consuming and learning.

There are many ways to dissect space. Similarly, there are many modes and platforms on to which information and instructions are provided in how to move into and through a location. Sign systems are overlaid onto a landscape and reinforce imagined boundaries, granting both content and credibility. Flags, anthems, national colours and sporting teams[1)], alongside media policies, configure and develop ideas of sovereignty and difference. This means citizens can maintain a national allegiance when disconnected from the landscape. Yet a reality remains: nations are hooked into the global economy and maintain a network of cultural, economic, political and social relationships, particular through migration.

Cities create competing allegiances, identities and ways of dividing and sharing space. Any understanding of a national culture has to work its way through intertextual networks, balancing not only national culture with international culture, but also national with local, and national with regionality (Walby 2003). The mobility of digital information only widens and deepens this spatial dialogue. Jim Shorthose and Gerard Strange confirmed that, at its most general level, this new economy can be identified as being increasingly global; increasingly about intangibles such as knowledge, information, images and fantasies; and increasingly decentralized, and characterized by networks and flexibility (2004, p. 43).

Shorthose and Strange recognized that national imaginings are being challenged, bent and transformed through the engines of the 'knowledge economy,[2)] which is built on the mobility of people, ideas, information and capital. Therefore, it is necessary to rub down these national narratives and imaginings to discover the digital exfoliations of urbanity.

City Imaging

City imaging is a phrase with resonance in urban planning, marketing, tourism and creative industries. It connotes a combination of place and iconography, with the goal of spatializing economic development through metaphors and policies (O'Connor and Wynne 1996). While phrases like the Creative City, cultural quarter and cultural cluster (Cornford and Charles 2001) have been deployed by Charles Landry and others (Landry and Bianchini 1995), such

1) The relationship between sport and urbanity is important. However it is necessary to note that second tier cities in particular develop a cultural and sporting infrastructure that can be promoted through tourism. Initially, the National Football Museum in the United Kingdom was based in Preston, a third tier city. However, through years of struggle, it was moved to Manchester. This short history tracked a movement from a third to a second tier city. To monitor the early history of the Museum, please refer to Brabazon and Mallinder (2006). To see a powerful study of community development in cities through sport, please refer to Brown, Crabbe, Mellor, Blackshaw, Stone (2006).

2) I have intentionally used inverted commas around 'knowledge economy' for its first appearance in this article. It is now a compound noun with a reasonably agreed definition. However I wished to emphasise that it is a shift in both policy and thinking about how money is made in a post-fordist, globalized economy. To track one trajectory of this debate, please refer to Charles Leadbeater's *Living on thin air* (1999).

initiatives – at their most basic – probe, explore and develop advertising campaigns for cities and regions, rebranding troubled, static or declining locations and facilitating entrepreneurial initiatives to reinvigorate buildings, shopping complexes and event management (O'Connor and Wynne 1996). The assumption is that creative industries will – intrinsically – regenerate declining areas through innovative reconfigurations of 'quality' culture, access to art, and entrepreneurialism (Kunzmann 1995). The result is a heady mix of economic, social and cultural development.

City imaging is based on assumptions of a place, amalgamating the colours, sounds, smells, textures and history that arise when a particular urban environment is mentioned. The mental image of Detroit is different from Singapore. Tokyo is distinct from Glasgow. Some senses are more strongly involved in the imagining of a city than others. The application of these senses in summoning or denying the visual, sonic, olfactory, tactile and taste-based representations of a place is dynamic, unstable and unpredictable. The task for policy makers, urban planners and the tourism industry is to use and transform this image, to market the city as a tourist destination for music, sport (Misener and Mason 2006), beaches, books (Brabazon 2011) or relaxation.

Cities are complicated cultural formations. They wear history and are worn down by it. After industrialization, cities became places of fear, where working class people may gather, collectivize and resist inequality. Books such as Matthew Arnold's *Culture and Anarchy* (1869) capture the fear of change and a desire to use 'culture' as medication, or indeed, sedation, for resistance, revolt and riot. Through the process of industrialization, cities morph, expand and corrode, revealing uneven development in education and health facilities, poverty and volatile overemployment, underemployment and unemployment in response to production and consumption. Structures are built to create or enhance social exclusion (Manley 1996). For example, the Thames in London separates the city, organizing spaces, buildings and suburbs socially and economically.

All cities share a great deal: a transportation network, pollution and commercial hubs. Differences are instigated through immigration, size of population, geographical specificities, weather and economic policies. One strategy to organize cities for both research and policy development is to position them into tiers, based on size, influence, branding and impact. Global cities are the spine of the international economy, with a huge multicultural population, housing the international headquarters of corporations and diverse modes of production and consumption. Such global cities can be listed with ease: New York, Toronto, Mumbai, Paris, London, Berlin, Madrid, Sydney, Auckland, Tokyo and Cairo. They have much in common. This sameness is matched by an intense connectivity and mobility (Florida 2005). After September 11, global cities like New York and London became places of fear, confusion and terrorism, with a targeting of transportation networks (Redhead 2006). The point of globalization is that it renders global cities homogenized, sites of sameness. Indeed, Saskia Sassen – the key theorist of global cities - argued that they are "de-nationalized" (Sassen 1991). Global cities are disconnected from national imaginings and form relationships with other global cities (Bianchini 1991). They hold a particular function in the global economy. The premise of such an argument is that New York has more in common with Toronto and London than New Orleans or Las Vegas.

Non-global cities, not surprisingly, describe all the other cities that are not global cities. The most researched cities in this category are situated on the second tier. They are sites of difference, including divergent popular culture, tourism, industries and economic development. These cities, like Vancouver, Brighton, Wellington, Perth, Osaka, Dunedin and Düsseldorf, are

very different from each other. Banking and corporate headquarters are not located there. Diverse industries fuel the cities. They reveal diverse and frequently distinct ethnic and immigration histories. These non-globalized differences are the foundation for tourism. While global cities hold many remarkable similarities, Dunedin is very different from Vancouver. These distinctions sharpen the market and marketing. Without these diverse and marketable landscapes and identities, tourism does not function. Because of the unusual histories and size of second tier cities, they become known and branded for a particular moment or event. The Beatles and Liverpool is one example. Seattle and Nirvana is another. Wellington, *Lord of the Rings* and the Weta Workshop is a further case study of a cultural intervention providing wider social and economic opportunities.

The music industry in particular is based on the categorization (and marketing) of difference in genre, time and space. When considering Düsseldorf, Sheffield and Manchester, music has been used with great effectiveness to shift the imaging of various cities (Brabazon 2005). Certainly global cities like New York and London take all the creative, critical, institutional and economic attention. Bands and DJs who are successful in these places are highly visible to policy makers and the music industry because the corporations are based in these cities. Any minor success is quickly recognized. The A&R personnel of record companies are based in these locations. However musicians and artists not resident in these centres have more time to develop a sound, skill base and experience without preliminary pressure. They can improve musically, grow up, gain a fan base and support structure. By the time recognition does arrive – or at least a record contract – they are more experienced from managing a smaller city's venues and audience. Oasis and The Beatles[3)] are clear examples of this argument. Second-tier bohemia – in San Francisco and Seattle – can be branded (Brabazon and Mallinder 2010).

Some global cities like Auckland are so spread out that it is very difficult to bring a group of people together in space. For a music industry to function, there must not only be venues to play, but enough people to attend the gig, often enabled through a functional bar and public transportation networks. The strength of second tier – or non-global cities – is clear. Located outside the matrix of global cities, the smaller size of the urban environment enables audiences, communities and fans to be formed (Lee 2002). This economic modelling of cities, particularly on the second tier, is increasingly important. Ann Markusen, Yong-Sook Lee and Sean DiGiovanna argued that "second tier cities are the most remarkable new regional phenomenon in the late twentieth century" (1999, p. 335). There are many reasons for the innovations that jut with seeming predictability from second tier cities. They are more malleable to urban planning and city imaging strategies. Manchester and Sheffield are the archetypes of this innovation and intervention. Activating and marketing sport, music, tourism and technological change has meant that new relationships are forged between city imaging and economic development. Markusen, Lee and DiGiovanna described them as "sticky places in an increasingly slippery world" (1999, p. 335). Because of the population and geographical size, cultural and creative industries policies can be more targeted, appropriate and specific (Sweeney 2004). Therefore the most effective and precise way to both study cities and create efficient policies is to find relationships between them. Structuring them in tiers is a way to create this specificity.

While the second tier cities have both economic and social potential, third tier cities are not only

3) The Beatles are particularly interesting as they not only played Liverpool venues in their early career but travelled to Hamburg for extended residencies. In other words, they were formed and based in one second tier city and improved their musical abilities and sharpened their capacity to perform in front of a live audience in another.

neglected in the research literature, but are lacking infrastructural and policy support (Bell and Jayne 2006, p. 2). These cities require the most intervention. The impact of global cities on the regions encircling them is that they pull people, industries and money (Scott 2001). The economic and social scale and size of global cities ensures that the surrounding areas are often post-industrial wastelands. It is difficult for these areas to gain an identity and image. These outlying regions often form third tier cities. These cities are incredibly diverse in shape, population and economic 'development.' Erickcek and McKinney located and categorized eight types of small cities: 1. Dominated by an older industry in decline. 2. Private-sector dependent, with little public sector employment. 3. Dispersed geography and function. 4. Company towns attempting to survive when a company leaves. 5. University and college cities where graduates leave after graduation. 6. Company towns surviving after the company leaves, but with a remaining social purpose. 7. Cities growing through the engine of the new economy and creative industries. 8. Cities growing through university/government/business clusters (Erickcek and McKinney 2004).

This is a strong rubric to map and categorize third tier cities. A key book in this under-researched field that captures this diversity is the edited collection from *David Bell and Mark Jayne: Small cities: urban experience beyond the metropolis* (2006). The contributors investigate the consequences of inter-city competitiveness. The overarching argument from the researchers is that the strategies that have worked in San Francisco and Manchester are not (necessarily) applicable to Stoke, Mandurah, Invercargill or Oshawa.

Therefore, unable to replicate the strategies of second-tier cities like Manchester, Osaka or Seattle and without an intervention from public or private investment or higher education institutions, third-tier cities stagnate or decompose. The question, raised by Beth Siegel and Andy Waxman, is whether this decline is unstoppable. Unfortunately for these cities, many of the sources of strength that they drew upon in their heyday are now disadvantages in the New Economy. For example, their rich industrial heritage was the result of large, densely built factories that were constructed to take advantage of the transportation modes of the day – waterways and railroads. In the New Economy, employers prefer an entirely different sort of location – sprawling one-story buildings near highways and advanced telecommunications lines, or in larger, more vibrant cities. As jobs moved out of these small cities, a host of other problems followed: declining population, loss of the middle class, abandoned mill buildings with environmental legacies, struggling downtowns, a shrinking tax base, and fewer employment opportunities (Siegel and Waxman 2001).

Jobs vacate these small cities, along with population. Downtowns struggle. The tax base reduces. The difficulty in retaining young people and attracting new residents is profound. Facilities and infrastructure follow the population. These third tier cities exist throughout the world and the strategies to enable their recovery are diverse. Superficial attention to branding and city imaging are not sufficient. Siegel and Waxman realized that, "while the data demonstrate that third-tier cities are having difficulty transitioning to the New Economy, a more thorough understanding of these cities is needed, an understanding that goes well beyond statistics" (2001). They are correct. For the purposes of this present article, I propose a four-layered strategy for this understanding. Firstly, it is important to understand the specificity of the city's history, noting the period of its greatest economic and social success, along with its causes and consequences. A second stage is to recognize the present environment and reality of living in this city. Thirdly, it is beneficial to explore the similarities and differences with other third tier cities around the world, noting effective and inefficient strategies for change. Finally, a city modelling imperative, where applicable strategies in one city are then attempted in another, may provide an imperative for growth or a temporary tactic to sustain a current situation while

other policies are discovered and researched.

Many third tier cities gained a successful single industry in the manufacturing and industrial age. Flint and Oshawa manufactured motor vehicles (Macaluso 2012). Napa (still) makes wine. Blackpool was a destination for working class tourism. Rockhampton in Australia was a service hub for the cattle industry with a huge meat works. These cities are rarely known beyond their nation. They were not marketed or branded. So third tier cities were successful in the manufacturing/industrial age, but have failed in the new knowledge economy. The housing and transportation in the third tier is inadequate (Grieco and Raje 2004). The infrastructure was based on factories and the construction of small homes for the workers to service the industry. The telecommunication systems and mobile networks are inadequate. Therefore, the jobs reduce, and employment in 'the new economy' – particularly in the service sector, creative industries and education - moves to global and second tier cities (Barnes and Hutton 2009). Because of the lack of employment, the population is declining, the middle class are leaving, and health and educational facilities are reducing. Abandoned and derelict buildings proliferate. Environmental problems, hazards and pollution result from the after effects of industrialization. Downtowns are deserted. Shops close because of the lack of population. Young people leave for global cities where work and leisure opportunities are a draw card. What remains are commuter cities that are often desolate, decomposing and decaying. As an example, Luton - a third tier city - is 44km (or 27 miles) from London. Brighton - a second tier city - is 88 Km (or 55 miles) from London. That slight increase in distance from the global city creates just enough space for separation and difference which is integral to the development of the creative industries. Brighton is a second tier city of 220,000 people. Luton has 180,000 people. Luton is an industrial wasteland. The talented, skilled and educated move to London. The affluent live in Brighton. Although it is only slightly further away, it is still within one hour of London by train. This proximity means Brighton has an independent identity. Luton struggles to maintain one.

Oshawa in Canada has a population of 140,000, but from such a size and geographical position, it is difficult to resist the pull of Toronto. The relationship between Oshawa and Toronto is not unusual. It is part of the history of working class people. Through the tandem forces of industrialization and urbanization, the building of industries and the construction of cities was aligned. Cheap housing was created in the middle of cities so that workers could operate the equipment in factories. Through the nineteenth century, the white collar workforce moved into the suburbs, enabled first by the train and then the car (Featherstone 2004). However this narrative of urban sprawl changed later in the twentieth century. The affluent moved back into cities, living in lofts and condominiums. Inner cities were upgraded and updated for urban professionals (Butler and Lees 2006). This process displaced the working class people living there. Governments therefore created housing estates at the extremity of cities. This was an effective option in the 1960s and 1970s because they were serviced by trains and buses. But as public services started to decline, the hospitals and schools were closed in these outlining suburbs. Fewer buses and trains were available to transport people to work, education or leisure. Concurrently, Edgelands – the "waste places" (Farley and Roberts 2011, p. 6) at the metaphoric moat of cities – demonstrate the neglect of public spaces and the mismanagement of industrial ruins.

Such urban narratives and differences are the basis of city imaging and integral to place branding. Obviously the branding literature is wide and interdisciplinary, and only minimally conflates with city and regional development. However the imperative remains 'improvement' and 'progress.' As Evans states, "Frequently, regeneration programmes are developed without reference to, or inclusion of, incumbent arts and cultural groups, or past heritage associations /

communities. This arises due to the different nature and perspective of the 'regenerators' and community-based activity" (2005, p. 971). He realizes that, "Indeed, in the areas which are the subject of extensive regeneration, it is presumed that quality of life and, by association, indigenous culture, is poor and needs 'improving'" (2005, p. 971). Therefore, a city imaging process can emerge from a disrespect and disregard of urban history and injustice, and configures a shiny if brittle shell of modernity. A better model emerges from Jonathan Gabay, founder of Brand Forensics, who stated that, "Branding a city is not just about the logo but the intricate details — as small as clean streets and as deep as getting a city's residents to feel proud to be brand ambassadors. When citizens are proud, visitors are encouraged to find out what the fuss is all about and then tell the world" (Salman 2008). He recognizes the importance of ownership and investment in the image, and the depth with which the changes in city imaging and branding are recognized by those who live in these spaces.

For example, Hazime explores how Qatar and Abu Dhabi are challenging globalization and sameness by building their cities into brands (2011). In the Middle East, following the example of Dubai in the UAE, the goal has been to build enabling airlines with emphasis on event tourism. Many of the UAEs do not have the resources of other nations in the Middle East, so they are reliant on tourism, museums, education and sport. The successful programmes in Qatar and Abu Dhabi have also utilized the speed and potential of digitization. Their initiatives foreshadow my discussion of geosocial networking later in this article. It is easier and quicker to brand cities and regions through digitization, particularly when mobilizing the read write web and user generated content. This branding matters for sustainable employment, but a sense of belonging and identity cannot be imposed or faked. It must be tethered to the experiential reality of living and moving through a place.

While such social relationships are important, the economic modelling of cities is becoming even more urgent, particularly after the global credit crunch and recession. The history of cities, as sites of political struggle, fear and change, is being rewritten. Cities were important to radical politics. Marx and Engels saw the conditions in the cotton mills in Manchester. Some of the most radical writers of the last one hundred years - Robert Tressell, Raymond Williams, Richard Hoggart and EP Thompson - watched the changes to people and the landscape, and wrote their politics through the city. Urbanity was an actor and agent in social change. Such a function is being overwritten: cities have become sites of consumption. Such attention to the marketing of place not only sells a city, but aims to promote local economic development. As Walker argues, cities create brands for tourism (2010). But for such a strategy to operate, there has to be something distinctive to sell the city to visitors. Third tier cities in particular, of which Oshawa is an example, lack this clear marketing focus and require assistance and attention. Cities rarely improve from 'bottom up' strategies from citizens. Planning and investment for facilities, leisure activities, entertainment, education and work are all required (Hollands 2002). Such interventionist policy initiatives first emerged in (post)industrial England, where it was necessary to re-inscribe the landscape and permit new economic strategies to develop.

Cities based in manufacturing suddenly and desperately required a new purpose. Sheffield, with its history locked into manufacturing and steel, moved from labour intensive older industries and embraced digital and creative industries. Not only music production, but film making, publishing and the creative arts are now part of the new Sheffield. Similarly, Manchester is a post-industrial city. It was reliant on the textile mills, but once these closed, new reasons for the city's existence had to be found. As Dave Haslam realized, there's an identity crisis at the heart of the story of the modern city. Manchester, like England, is now re-creating itself, looking for a new role, a life without manufacturing industry. Like a middle-aged man made redundant after a lifetime in a factory, Manchester is either facing years

drawing charity, welfare and government handouts, or it's going to retrain, reorganize, and find something to keep it occupied (1999, p. xi).

Reorganize it did. The phrase knowledge economy started to describe the high concentration of Universities, academics, teachers and students in the city. Leisure facilities and successful sporting teams like Manchester City and Manchester United enabled day trips through the cycle of home and away matches that facilitated local tourism[4)].

These cities discover new roles and functions, creating new opportunities. Networks of cities generate an active regionalism. Will Alsop proposed a 'Supercity,' spanning from Liverpool to Hull along the M62 (2005). While basing a regional strategy along a road weds regional development to automobility and questionable sustainability, Manchester is becoming an important transportation hub with a large regional airport serviced by a train line that provides alternative entry points into the United Kingdom, beyond the dominance of London Heathrow and Gatwick. Manchester has an historical role in forging such regional connectivity: it was the hub of the first water navigation with the Bridgewater Canal in 1759. The point of a transportation policy therefore is far greater than managing traffic congestion and gridlock. It enables urban regeneration and regional relationships. A connected city is a successful city.

The problem with many cities, including Oshawa, is that they are car-dependant. It is very difficult to move around these spaces. This is particularly significant if airports are not positioned on train lines (or train lines do not integrate with airports). Pearson Airport in Toronto and Perth Airport in Western Australia are two examples where disconnection between modes of transport creates both social inconvenience and an economic cost. The effective integration of planes and trains around Gatwick and Manchester Airports and the less successful but still functional connectivity of public transportation to Heathrow show the potential and opportunities of aligning systems of movement through space.

There is a strong link between transportation and poverty (Sanchez 2005), with incredible effects on education, housing and available employment. Therefore in declining third tier cities, men and women are trapped. It is difficult to find work or attend university. It is also challenging to support good health (Marber 2000), leisure and fitness (Noiman 2009), because of a lack of availability of quality food and supportive sporting infrastructure (Marvin and Medd 2004). Indeed Maurice Patterson has created a strong short book, titled *Inner-City Diet*, that shows the

4) The importance of the Premier League in this economic development requires a separate research project. Significantly, the Premier League is dominated by London-based (global city) teams such as Arsenal, Chelsea and Tottenham Hotspurs. However second tier cities dominate the rest of League. The value to third tier cities if they can break through from the Championship is difficult to calculate. Not only is there the media revenue and the tourism generated from away fans coming to the city, but the international promotional opportunities in terms of city branding is invaluable and – indeed – difficult to value. Similarly the cost when teams do not come up or rebound between the leagues is high. Bolton, Southampton, Portsmouth, Wigan, Blackburn and Blackpool show both the potential and cost of third-tier cities competing – via sport – in the competitions of second tier and global cities. One poignant case involves Preston North End, the Premier League's first championship winner in 1889. The National Football Museum was initially attached to Preston North End's ground. However controversies over entrance fees and endless questioning of why it was positioned in Preston resulted in it being moved to Urbis in Manchester. This is a straight- forward example of the movement of industries from a struggling third tier to a booming second tier. However Preston North End was very close to promotion into the Premier League in the early 2000s. The hypothetical question remains, what would have happened if away fans from the Premier League teams were drawn to the ground to watch the match, but also were able to enter and enjoy the museum? The potential of sports tourism and sports media to city imaging initiatives for third tier cities is an important area of future research.

cost of injustice on the health and fitness of residents (2009). Therefore the poorest people who most needed assistance had little chance of receiving it because of a lack of a supportive and enabling built environment (Handy 2002).

There are opportunities for these small cities to recover and bloom. Some cities adjust to change. Others do not. Landry presented some shape to this pattern of success, failure and transformation. Successful cities seemed to have some things in common – visionary individuals, creative organizations and a political culture sharing clarity of purpose (2004, p. 3).

The problem is that there is no checklist for recovery. Further, the transferability of strategies between struggling cities is debatable (Baker 2007). What may work in Oshawa will not function in Hastings. What operates in Galway may not be appropriate for Aberdeen. It is important to research and discover what has worked well in other cities. It is necessary to translate and migrate data for new conditions. Certainly, the problems in these third tier cities have been listed. Siegel and Waxman reveal the scale of the challenges.

- Out of date infrastructure
- Dependence on traditional industry
- Transformation of their human capital base
- Declining competitiveness within their regions
- Weakened civic infrastructure and capacity
- More limited access to resources (Siegel and Waxman 2001).

There are strategies to manage these difficulties, but they require funding. Sustained and planned attention in the long term is required on modern transportation and communication infrastructure. While third tier cities are small and unable to mobilize the economies of scale, the capacities for teleworking and e-commerce in wireless environments can move local ideas and products into second tier cities and beyond. Therefore the final two sections of this article explores the specificity of Oshawa and the potential of geosocial networking to digitally reconfigure and reboot analogue injustice.

Third-tier cities: the case of Oshawa

Narratives of post-industrialization decompose cities, cracking the foundation of urbanity, accessibility and social justice (O'Regan and John Quigley 1998). As argued in the last section, between the 19th and 21st century, poverty moved from the inner city to the outer ring of large cities. Effective public transportation systems matter in minimizing this social rupture and damage: they are the key to economic and social mobility (Urry 2003). Without planning and considered attention to movement patterns of people, goods and jobs, Paul Farley and Michael Symmons Roberts' *Edgelands* are created. Walking through Wolverhampton, a third tier city looking for a purpose, they realized that, "new things are very easy to get hold of, despite the fact that we British don't seem to make many of them anymore. In fact, the collapse of our old, physical industries into virtual industries is one of the oft-repeated signs of our troubled times. This has come at a huge and well-documented cost to individual lives, social cohesion, community identity. But does it have a cultural impact too? Walk around the edgelands of Wolverhampton and you see a landscape struggling to shape itself to a world of virtual industry" (Farley and Roberts 2011, p. 54).

It is easy to focus on the clean, digitized new economy. However the rusting relics of the industrial past remain. Within these edgelands, decay anchors the downtown region of cities throughout the world to a past of industrialization rather than a future of digital design and skill development (Fig. 4).

Fig. 4 - **Wasted retail spaces**
Photograph by Tara Brabazon

Gary McDonogh and Marina Peterson realized that the word downtown "evokes intensities at the core of urban life, space and capital" (Peterson and G. McDonogh 2012, p. 1). The description of 'intensities' is fundamentally appropriate, capturing the hostility, fear and decline of downtowns alongside the potential for development, in the many manifestations of that word.

They capture the abandonment of the city, policies for rejuvenation and the mixed use of urban environments during the day and night. Further, there are an increasing number of university 'downtown campuses,' using the land and buildings to enable expansion of higher education. From his Canadian experience, Leo Groarke, former Dean of Wilfrid Laurier University's campus in downtown Brantford Ontario, wrote *Reinventing Brantford: A university comes downtown*. He noted challenges in enrolment and the complex relationships formed in multi-campus institutions. Similarly, the University of Windsor, at the cusp of the Canadian and US border, is planning to relocate Social Work, Visual Arts and Music to the downtown. Brock University is constructing a cultural arts centre in St Catharines. Grant MacEwan University in Alberta is rebranding itself as "Edmonton's downtown university." Claudio D'Andrea confirmed the reason for this expansion. Many see these campuses as solutions to the problems of decaying downtowns in smaller Canadian cities. Universities, in turn, are reaping community goodwill – as well as badly needed expansion space (2012).

Oshawa undulates through this narrative of decline and decay, potential and opportunity. It was reliant on a single industry that employed working class men. Then the car industry declined. The purpose, place and role of Oshawa in both Ontario and Canada are unclear (Straw 2010). One opportunity to change this story emerged through the University of Ontario Institute of Technology (Fig. 5).

Fig. 5 - **UOIT's Downtown Campus**
Photograph by Tara Brabazon

Higher education gives such cities a new industry and the opportunity for residents in the Durham Region to gain a degree. However history matters. It pulls and drags. As John Quelch and Katherine Jocz realized, "place determines how consumers interact with a product or brand" (Quelch and Jocz 2012, p. 3). While students are not consumers and universities are not a product, the corporatization of higher education mobilizes wider brand management strategies. The reputation of Oshawa as a declining General Motors City - Canada's version of Flint in Michigan - has an effect, alongside the (over)reported violence, rapes and drug use. Less than one minute from a UOIT building is an undeveloped GM site, still showing the residue and scars of its industrial past (Fig. 6).

Fig. 6 - **Industrial Residues**
Photograph by Tara Brabazon

Therefore while a university can provide an important mechanism to re-image a city, the history of Oshawa is deleterious and seeps into the present. Brand management can mask some of the challenges, but it is a temporary mechanism. Significantly, the institution was named the University of Ontario Institute of Technology (Fig. 7).

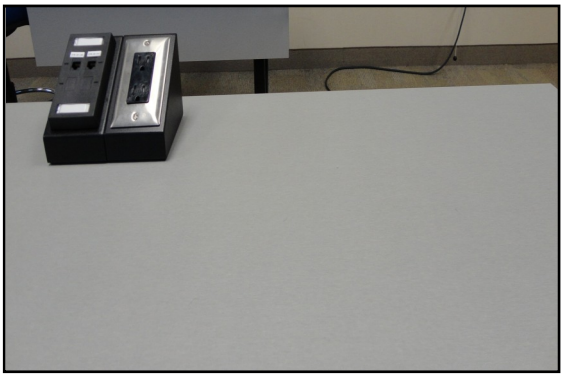
Using the provincial rather than the city's name was a way to render the university's location ambiguous in space and disconnected from real geography and reputation. While this was a short term strategy, the longer-term consequences are that not only is the campus dislocated in space but it can have little positive impact on the rebranding Oshawa. Place remains, as Quelch and Jocz realized, "a metaphor of status, whether social or professional. By definition, the place we want to be is inspirational" (Quelch and Jocz 2012, p. 28). Oshawa is not inspirational, and Ontario has many universities. Therefore a University of Ontario is attempting to mask the complex, negative, confused and under-developed re-branding of Oshawa. The competition for students is intense. The University of Toronto is one hour by train from Oshawa. The University of Trent already has a campus in Oshawa. However the naming of a University of Oshawa Institute of Technology may have confronted too many challenges, paradoxes and contradictions for student marketing and retention. Yet third tier cities such as Guelph and Windsor have claimed, linked and named both place and university. There is much remedial policy and institutional work to conduct in Oshawa, both inside and outside the university. This concern is made worse because the histories written about Oshawa are rare and poor quality. M. McIntyre Hood's *Oshawa: Canada's Motor City* was written in 1968 and presents an unreconstructed 'great men' version of history, propelled by a neo-colonial narrative, including a first chapter titled "Before the White Man Came" (McIntyre Hood 1968, p.1). While local histories tend to be uninspiring and celebratory, there has been little intellectual revisionism of Oshawa to create momentum for innovative social and economic developments. Oshawa does not enable or encourage a concise or easy regeneration story. While Toronto is well serviced by schools, libraries and hospitals, Downtown Oshawa is severely neglected (Fig. 8).

Fig. 7 - **Ontario, not Oshawa**
Photograph by Tara Brabazon

Fig 8 - **Neglected Space**
Photograph by Tara Brabazon

The two framing buildings around this wasteland are a car park to the left and a retirement village to the right. Such vistas capture the problems punctuating the outer ring of global cities. Julian Brash described “downtown as [a] brand” (2012, p. 257). The question is how this branding of Oshawa is invested with both meaning and value. But there are international case studies to deploy that may be of use in creating models of development for Oshawa.

Oshawa made one crucial, productive and courageous step, moving from a manufacturing industry to the knowledge economy. There are however profound infrastructural problems confronting the university, staff and students. Founded in 2002[5)], the first students were enrolled in 2003. The northern campus was opened at this time. A downtown campus later followed in 2010. The enabling legislation for the formation of the university reveals two key ideologies: the goal to provide an opportunity for further education students to attain a university degree and an imperative to ‘service’ the Durham region. From this legislation, complex relationships between UOIT and Durham College, the FE institution with which it shares premises, is clear. Sharing a northern campus, library and technological infrastructure has meant that a problematic confusion has emerged between further and higher education. While nations such as Australia and the United Kingdom have national quality assurance protocols such as the QAA and the AUQA that were particularly valuable in establishing the value, level and standard of ‘new universities,’ such a national network is lacking in Canada. A few doctorates have been awarded in the sciences and engineering, with none in education, the social sciences or humanities. The Dean of Graduate Studies lacks experience in institutions beyond Ontario. For the Vice Chancellor Tim McTiernan, this is his first post at this level. Similarly, Deans of Faculties have not held the title or post before their current appointment at UOIT. This creates the precarious combination of an inexperienced management tier and a new institution. Therefore, provincial attention will be required to verify quality assurance, curriculum design, external examination and professional development, particularly in teaching and learning. The majority of staff hold no track record or expertise in doctoral supervision and research training. This means that the crucial trajectory for growth in graduate education will be difficult to negotiate or build because of a lack of experience in trans-institutional examination and quality assurance. The key difference between further and higher education is the capacity to award graduate qualifications. The longer the confusions between further and higher education remain between Durham College and UOIT, the less opportunities will emerge to develop a reputation for excellence in doctoral candidature management.



One further oddity emerged in the branding of this new university in a city with declining industries and manufacture. The labelling of the campus as a “laptop university” has wedded the delivery system of teaching to an increasingly outdated hardware platform. The focus is on the hardware rather than the learning (Fig. 9).

Fig. 9 - **Laptop Learning?**
Photograph by Tara Brabazon

5) The enabling legislation was the University of Ontario Institute of Technology Act 2002, http://www.e-laws.gov.on.ca/html/statutes/english/elaws_statutes_02u08_e.htm

Each student must lease a Lenovo Thinkpad at the start of their degree, with options to buy it before graduation. In marketing and branding terms – even before working through considerations with quality assurance – to attach a mitigating adjective to the word 'university' is unwise. Oxford is not a "book University." When Duke distributed iPods to their first years, they did not rebrand themselves as the "iPod University." Therefore, mistakes were made in an attempt to brand the institution. In a desire to be modern and different, the institution demonstrated the exact opposite, wedding itself to both technological determinism and obsolescent hardware. If the history of educational technology teaches researchers anything then it is this: what begins as fresh, innovative and edgy quickly evolves to tired, redundant and banal.

The Downtown campus was a fascinating proposition. As the graffiti artist who inspired this article realized, the downtown is "wasted." The capacity to purchase derelict buildings and reinvest them with purpose is a powerful and important project. The Regent Theatre was renovated, used for lectures during the week and performances on weekends and weeknights (Fig. 10).

Fig. 10 - **Regent Theatre Regeneration**
Photograph by Tara Brabazon

However the renovation was flawed. Within one year of its opening, the building had to be closed for repairs to the structure (Cole 2012). A more successful transformation was to the Alger Press building, on the corner of Athol and Charles Street, which was retrofitted for lectures, teaching rooms and the library. In its earlier history, it housed a textile manufacturer and later, the Canadian Electric Lamp and Canadian Knox Glass Company. General Motors used it for a short period during the second world war. But the building most famously housed Alger Press, which produced *The Oshawa Telegram*, the city's first daily paper. Alger Press closed in 1993 due to bankruptcy. What remains in this building is a huge factory space, composed of three storeys of red brick. It is resonant of Manchester's textile mills that later converted to lofts. This space has enormous potential. Unfortunately, the library was not purpose-built to utilise its space (Fig. 11) and the librarians were not involved in its design (Brabazon and Orfano 2011).

The remainder of the structure is a shell looking for a function (Fig. 12).

Two faculties were moved to downtown Oshawa: Education and Social Sciences and Humanities. Both use the Alger Press building for lectures. But the downtown strategy of moving into unused facilities has encountered difficulties. Renovating buildings does not

Fig. 11 - **A library in space**
Photograph by Tara Brabazon

inevitably renovate a region or transform city imaging. Many, many buildings remain bordered up, with glass shards from broken windows peppering streets (Fig. 13).

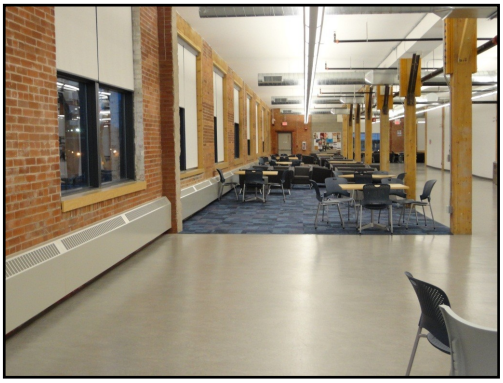


Fig. 12 - **A shell for learning**
Photography by Tara Brabazon

Fig. 13 - **Disused space**
Photography by Tara Brabazon

There is not a diversity of businesses and industries in the downtown. There are restaurants and coffee shops, but where are the bookshops, the music shops, the practice halls for musicians, supermarkets, web and fashion designers (Evans and Smith 2006)? A plurality of industries is required. There is also no functional hotel for visitors. The Hotel Genosha is a ghost of a building, decaying before the eyes of residents and visitors (Fig. 14).

Currently, there are few reasons for Oshawa's existence. It is excluded from Canada's 'technology triangle' of Cambridge, Kitchener and Waterloo. Joseph Leibovitz realized that even within the triangle, local allegiances often overshadow the unity of the triumvirate. Little attention has been given in the literature to the extent to which small cities and mid-sized localities, situated within close proximity to each other, may be reacting to the supposed transformation in urban political economy(2006 46).

While there are problems in building a productive regionalism, Leibovitz realized that the commercialization of university research, particularly when servicing governmental agencies, has created economic development (Leibovitz 2006, p. 48). Oshawa has been actively excluded from such a re-imaging strategy. The University's presence is not profound or structurally significant because it is disconnected from the wider social fabric. A tweet from May 19, 2012 captures this problem.

> Asked the #GOTransit ambassador if he knew of a bus that goes from Oshawa Go to #UOIT. He said "Sorry? U-O-what? I don't know what that is"
> Expand

Similarly, there are few opportunities for tourism. Small city/nations such as Singapore have activated a very effective tourism strategy (Chang 2006). But Oshawa is no Singapore.

Fig. 14 - **Hotel Genosha**
Photograph by Tara Brabazon

Recognizing the exclusion of Oshawa from more active regional developments, the University is even more important to the economic and social survival of the city. There is a provocative and important relational maxim to consider: the smaller the city, the more important the university. John Hogan, the registrar at Newcastle University in the United Kingdom, verified the accuracy of this assumption.

Imperial [College London] is a fantastic institution, but if it closed, would London notice? Probably not. But if Newcastle closed, or Northumbria, Durham, Teesside or Sunderland [universities] closed, it would be a catastrophe for the local and the bigger region, because there's not a lot else going on in the North East. The relative importance of these universities is

so much more important than some of the outstanding institutions you might find in London (Cunnane 2012, p. 8).

This role is increasingly crucial because – as Richard Muir from the Institute for Public Policy Research revealed – regional inequality increases when public spending declines. He suggests that, in the UK context, "£1 million output by a university generated a further £1.38 million for the wider economy" (Cunnane 2012, p. 8). While direct comparisons are difficult, it is an important argument to consider in and for Oshawa. In a declining economy, regional injustices increase and the economic role and significance of a university is amplified.

Yet ignoring such arguments and their consequences, controversial policies and police interventions have emerged that block the development of student and regional cultures. In September 2007, the Durham Regional Police entered the housing of university students. The City of Oshawa obtained warrants to search the homes. The police arrived unannounced and entered the properties without permission (but with the supposedly relevant authority).

The student returned from school to find police officers, a fire marshal, and a building inspector searching her personal possessions. A locksmith had picked the locks to her rental home to gain access. Her roommate was awakened from a nap when the officials entered her bedroom to search (City Raids Student Houses in Oshawa 2007).

The reason for such behaviour – or indeed the justification – was that the buildings were being used illegally as boarding houses. This treatment of renters who also happened to be students was also a symptom of a wider problem. The then President of UOIT stated that the "worst is over" (City Raids Student Houses in Oshawa 2007). He was incorrect.

In 2012, an attempt was made to create space for students, to enable the university to expand its facilities. Oshawa residents responded. Jeanette and Kevin McCurdy wrote to the newspaper expressing their displeasure.

This is a low-density, single-family home neighbourhood and should stay that way. If apartments were to be built here, surely they would become student housing and we should not have to deal with the same problems related to student housing that have plagued the residents at Simcoe and Conlin. Have we learned nothing from that debacle? I would expect that Planning Services and the Development Services Committee would have the insight and forethought to avoid such a huge and costly mistake (2012).

There are potent, divisive and destructive debates encircling Oshawa's housing and indeed the versions of the city's future. The reality is that the majority of students at UOIT are commuting to the campus. It is not a university dominated by scholars residing on or near the university's facilities. This pattern of commuting to college rather than living is a wider characteristic of universities in the Toronto region (Tamburri 2008). However it has particular consequences for Oshawa, as the students are needed as a key market for goods and services. The point is that they drive or ride to the campus for their classes and leave at the conclusion of their timetabled day. There is residential accommodation, but in comparison to other universities in North America and the United Kingdom, it is a much smaller proportion of scholars. Therefore, to refer to student housing or – more problematically – students as a "plague" on the region is not being honest. Oshawa is looking for new industries, reputation, branding, businesses, commerce, employment and opportunity. These students are providing not only a foundation for the future, but a pivotal model for survival. These residents must recognize that 'business as usual' in Oshawa is not an option. It is disingenuous to enjoy the money brought to the region

by students, but disrespecting the carriers of those funds.

A key new problem is emerging as the first generations of scholars complete their degree. They are leaving the city upon graduation. One of the benefits of university cities is that the well-educated students remain for a period and contribute to the economy. However if the city is confronting such structural problems that there is no work, social life, facilities or reason to remain, then students leave the moment they receive their transcript. This is happening in Oshawa. The following Facebook update was offered from a graduating UOIT student on April 29, 2012.

> Good riddance Oshawa. Just the city though...I will miss all my friends terribly.
>
> Like · Comment · 30 minutes ago ·

Going to university in the city did not create an emotional connection to Oshawa. "Good Riddance" is not the foundation for a successful city imaging project. But this student's attitude is understandable. There is little employment and while General Motors still has a presence in the city, the number of workers and investment is declining. Further, how sustainable is a city imaging and branding based around the automotive industry in an era after peak oil?

There are clearly problems with housing. The way to build a downtown region is to bring people back into the area to live in it. The housing stock within walkable distance of the downtown is old, run down and inappropriate to the diversity of people that may wish to live there. It is very important that this housing stock is developed, as only when people reside in the city does it become living. Such an argument dominates the creative industries literature. Edward Glaeser believes that cities can offer profound sustainability. In *Triumph of the City*, he locates "engines of innovation" (2011, p. 1). To enable such strategies, Glaeser commits to "proximity, density and closeness" (2011, p. 6), showing that "traditional cities have fewer carbon emissions because they don't require vast amounts of driving" (2011, p. 14). Single family dwellings do not formulate such a model. Valuing the pedestrian life of London, New York and San Francisco, Glaeser recognizes that successful cities attract the best people who work collaboratively. They feature high quality educational institutions that are well administered. For Glaeser, "cities are green. Living in high densities and walking is a lot more environmentally friendly than living in a low-density suburb and driving everywhere" (2011, p. 267-268). Oshawa has none of these characteristics of a green city.

Considering the parking challenges in Oshawa, formulating strategies for pedestrians should be a priority. One model for Downtown Oshawa's development should be Manchester's Northern Quarter. It was a rough district of the city, known for prostitutes, drugs and gun crime. Rather than Madchester, the label that recognized the acid house and rave scene, the Northern Quarter was Gunchester. But by returning residents to the downtown, ensuring people can walk to work and university facilities and museums such as Urbis pepper the attendant streets, the space transformed. Cities change and will continue to change. But they also frame our experiences and our expectations. The question is how they are made liveable, walkable and sustainable.

Through globalization, cities are more predictable and standardized. Diversity is required to enable not only consumerism, but social justice. Frequently though, the contemporary city – at a policy and scholarly level – is 'about' consumption and competitiveness, not leisure and living. Glaeser's work is important because he reminds scholars that – for sustainability – cities must be more than a super (or meta) market for lifestyle goods. When the market economy becomes the unquestionable default position for all modes of 'development' – decentering not

only 'the state' but 'the public' - cities become the shop window for a generation. The cafe culture is – at its most basic and cruel – an affluent suburban shopping centre. By drinking a coffee in an urban coffee shop, there is a desire that transcends caffeine. It evokes fashion, conscious consumerism and marketable bohemia. Through the café flaneurship, local coffee shop patrons also create a space where they can linger in the moment, at least temporarily suspending the press to squeeze more productivity out of their day and where they can act upon the paradoxical consumer desire to be out in public while retaining a detached anonymity. Rather than seeking an experience of communal solidarity, café flaneurs revel in the social spectacle of the coffee shop crowd (Thompson and Arsel 2004, p. 634).

The city is a siren's call for the problems and possibilities of the deindustrialized economy. City imaging policies and strategies displace leisure and work in preference for consumerism and infrastructure development. Citizens become shoppers. The key is how we ensure a history of place remains hooked into the social fabric. It is important to restate that every city cannot be world class. Regeneration at its worst creates standardization in an often desperate (and futile) attempt to satisfy, not the people already living in a city, but those they want to attract. In the end, neither is satisfied.

Oshawa is trapped between these goals, needing an industry yet complaining about the students that it brings. Besides housing challenges, Oshawa has deep transportation difficulties. The Go Train is an unwalkable distance from downtown. The question is why was the Oshawa Go Train situated in the outskirts of the city, requiring a bus from most places to even commence a journey? Now that students are in downtown, the lack of public infrastructure is creating social dysfunction. There is little parking in Oshawa – and what is present is expensive. Yet because the downtown was seen as poor and redundant in the modern Greater Toronto Region (Britton 2003), the public transportation infrastructure was not developed. A direct train from downtown Oshawa to Union Station would help the economic development of the entire region. Indeed, the development of a 'global city region' is reliant on it (Sassen 2001).

For Oshawa residents, there are vital challenges to address as local services decline. Living in a poor area where it is difficult to travel has consequences for health, with poor quality food and few places to exercise. In Canada, this lack of health-enabling infrastructure matters. The weather is not conducive to exercise. There is, for example, a correlation between where it rains and snows and obesity levels (Wainwright 2006). Therefore, what is required in areas of poor weather is access – at low cost - to high quality gymnasium facilities to assist health and wellbeing[6)]. This mode of preventative health care policy also holds a strong social function. Martine Middleton realized that, "social patterns of movement, behaviour and meaning are derived from the physical and social interaction of city and place" (Middleton 1999, p, 117). Too often in economically deprived areas, there is poor access to gyms and healthcare, but plenty of junk food to purchase. That is the case in Oshawa.

Mobility is a mode of power and creates choices. The effectiveness of a city, in terms of social justice, can be evaluated in terms of the social and economic choices available for those who

6) A significant and new intervention in the development of health, wellness and fitness is a third tier city is the opening of Bolton One, attached to the University of Bolton campus. A partnership between the local council, the University of Bolton and the National Health Service, the goal was to create a culture of fitness for the young, the old, the immobile and those returning to fitness. The long-term imperative is to make physical culture and movement part of the daily life of Bolton residents. This initiative, opened in February 2012, provided not only a gym and exercise classes, but a swimming pool near the centre of Bolton, which had been without this facility for a decade.

do not drive. The walkability of cities is important. It is a proxy to evaluate the degree of social and economic mobility. Whenever there is an assumption that 'everyone' has a car, there is a blind spot in providing important facilities and infrastructure. These assumptions are not sustainable and do block the development of social justice-fuelled improvements for those with different mobility needs. Driving is linked with a suite of ideologies, like freedom, speed and independence. Freedom of movement is a metaphor for freedom of citizenship. While some groups gain from automobility, other groups do not. As a population ages, new strategies for thinking about movement beyond a motor vehicle are required. Whenever there is a discussion about a decline in public services, particularly health care, libraries or education, it impacts on those with the least choices and the least ability to move through space.

The question remains: what are the motivations, modes and strategies to enact change in a city such as Oshawa? The university is not a saviour or resolution for structural problems. For example, David Bell and Mark Jayne, academics originally based in Stoke – a third tier city – at the University of Staffordshire, left their posts for second-tier city universities in Manchester and Leeds. They realized that, dwindling student admissions were a key factor – students appeared to be increasingly ambivalent about committing to the 'unglamorous' city of Stoke-on-Trent, perhaps attracted instead to the 'buzz' and increased job opportunities of larger metropolitan centres ((Bell and Jayne 2006, p. 246).

Ontario has too many universities. Each competes for a dwindling student population and – indeed – market. The experience of living in a dynamic, exciting city with an attractive night-time economy is an important factor when selecting a university. Oshawa has little to attract students. Therefore the scholars who have not achieved at satisfactory levels use it as the institution of last resort. High quality academic staff cannot be attracted to work in the city and university, and if they join, will not remain because of the inexperienced management, lack of international reputation, redundant tropes for online learning, and the absence of high quality graduate programmes. Even with these deep challenges and problems confronting UOIT, made more damning by the wider issues confronting Ontario's higher education system through a decline in funding, this university has provided a counterweight to unrelenting decline in the last decade, but has not scaffolded an economic recovery.

The question is what will happen next in the narrative of third-tier cities and their universities? Greg Richards and Robert Palmer confirmed that, cities of today face two choices. Either they develop to meet the challenges created by the pace of global change, or they resist the impulse for transformation and stagnate. At a time when economic systems are no longer predictable, in order to remain competitive, cities are turning to strategies that focus on their own innate resources – their histories, spaces, creative energy and talents (2010, p. 2).

For third tier cities, their industrial histories are economic anchors to redundant practices and processes and disconnected from current social and cultural opportunities. Their spaces reveal environmental damage, and the most talented residents move to global and second tier cities where there is expansive employment, educational and social opportunities. While Richards and Palmer aimed to promote 'eventful cities' rather than event management, they also recognized the importance in creating liveable cities, containing both social connections and emotional affiliations.

Social, economic and city imaging strategies align. Without economic development, the provision of services suffer. Therefore the social experience of living in a third-tier city also declines. Therefore city imaging is not only a branding exercise to bring business and events to a location. It is also a survival strategy. Bill Baker, in his *Destination branding for small cities*,

confirmed that, in most cases, cities of this size can't always afford wide-ranging consumer research or high-profile advertising campaigns. Yet, there remains the need for them to stand out from the crowd in order to attract more visitors, more talented people, more inward, investment, and more new businesses (Baker 2007, p. 10).

Baker realized the paradox: we are living in "the most over-communicated period in history" (2007, p. 12), yet small cities have rarely 'managed' their brand and expressed their story (2007, p. 29). In an era of information glut, third-tier cities are invisible, marginal and marginalized. Therefore the final component of this article explores how the mobility of digitization and geosocial networking can medicate the lack of mobility and infrastructure in third tier cities. After the focus on decay and denial, the last section provides positive options to affirm difference.

Conclusions: from social networking to geosocial networking

This article has not followed the conventional path of social scientific research. Therefore a presentation of 'conclusions' is not appropriate. Instead, a combination of approaches from the humanities, including cultural and media studies along with theories from the creative industries literature, have filled some of the analytical gaps in scholarly understandings of third tier cities, particularly with attention to Oshawa. However, as a mode of conclusion and in a desire to invest the analogue spaces of these post-industrial cities with digital potential, geosocial networking offers potential.

A city is experienced through the senses. Traffic, buildings and the streets create a clash of sight and sound, touch and smell. As our bodies move through cities, our senses deliver information about threat and interest, alongside patterns of behaviour. Recognizing how we learn about urbanity, the view of graffiti artists like Wasted offer an alternative view (Fig. 15).

Fig. 15 - **Urban Literacy**
Photograph by Tara Brabazon

He or she is correct: much of downtown Oshawa is wasted. The question is how strategies for geosocial networking may enable development through a reinvestment in place. Analogue and digital lives are mediated and performed in a way that is suitable to each context. Screens are important. They separate analogue existence from digital performance. The read write web, often reified to the label of Web 2.0, enables the active construction of a self. The web delocates and dislocates users from their physical environment. This means that users can be living in Oshawa, Singapore or Auckland, but can (re)emerge in a deterritorialized digispace of Facebook, Twitter and YouTube, chatting, watching and participating with other users around the world. This is a two-way movement.

The internet, web and read-write web deterritorializes an audience from their physical environment.

The internet, web and read-write web reconstitutes us as an imagined online community.

A fascinating but unstable compromise is emerging between new and old ways of organizing space and identity. Geosocial networking is not only part of this process of deterritorialization and reterritorialization, but offers a new ontology and epistemology for urban environments.

A collision of social, political, technological and economic imperatives has meant that an investment in the local – including third tier cities - can have profound consequences for the development of businesses, social life and identity. John Quelch and Katherine Jocz, in their outstanding book *All business is local: why place matters more than ever in a global, virtual world* (2012), recognize the cost of marketers emphasising the global in decisions about production and consumption. They confirm that there are not only diverse modalities of place, but different modes of place, including geographical, physical, psychological and virtual. Digitization must now be considered when imaging or re-imaging a city or, indeed, any form of marketing. The Internet has also transformed marketing communications and democratized the brand knowledge and expectations of consumers around the world by accelerating the spread of word-of-mouth and viral advertising, more so even than television (2012, p. 9-10).

There is now a rapid dialogue between the diverse modes and meanings of place, a fast transference between local to regional, analogue to digital, physical to cloud-based computing, past and present. Quelch and Jocz realize that while consumers have shown a desire and willingness to purchase goods online, entering their credit card details into a portal, hyper-local advertising remains crucial, often delivered by supposedly globalized websites like Facebook and YouTube. Supposedly, the ability to make new friends and connect to people anywhere, regardless of their physical location, is one of the appeals of social media and social networking. However, one study found that half of Facebook friends are in the same metropolitan area; for teenage users, as many as 90 percent of friends are in the same area. People use Facebook more to solidify existing or geographically near relationships than to initiate or continue geographically distant ones (2012, p. 105). They ask that marketers “be intelligently local” (2012, p. 18). To provide one example, QR codes are a powerful mechanism to connect intensely local and physical spaces to just-in-time digitized information. When scanning the QR code from a poster in a shop window, the reader is able to gather and deliver digital information to their mobile phone about their actual location or interest. In this way, new connotations and associations can be hooked from digital environments and into a precise location.

Perhaps one of the most remarkable and surprising elements of digitization is geosocial networking. It logs the paradox of social media. While it is possible to contact and build relationships with users around the world, the bulk of ‘friends’ for most users on Facebook are geographically close. Similarly, mobile phones can connect users to anyone with another mobile phone. But actually, address books are filled with those in close spatial proximity. In other words, the platforms and applications that have the potential to reach every city and nation on the planet are deployed to communicate and share in local mode. Therefore with deterritorialization and disintermediation possible through the web and social media, it is remarkable how often social networking is actually geosocial networking: communicating with people within a restricted geographical area.

Geosocial networking is a sub-area of social networking, using the geographical features of

mobile devices called global positioning systems. A phone, mobile tablet or computer recognizes a user's location and is able to locate a personal digital object in real space and time. Geographical applications include geo-coding and geo-tagging. The goal of these processes is to ensure that social media users can share their location with others. The means by which a location can be determined is via the internet provider, the email address being used, or self-disclosure where users inform Facebook, Twitter or FourSquare of a geographical location. Mobile phone tracking can reveal this information automatically. The combination of wireless delivery and geographical positioning software navigation creates an accessible and useful combination of technology, mobility and geography. Such applications as Google Maps and Google Earth provide huge amounts of information about cities. As Vassilis Kostakos confirmed, "the relationship between computers and space is a topic that has persisted throughout the various advances in computer science" (2010, p. 31). Although creating a positive and productive relationship between physical and digital spaces remains a challenge, the mobile phone is the conduit for its negotiation. The mobile phone is an odd object: personal, portable, customized by sound and vision through ring tones and wallpaper, individualized and creating a huge dependency on it from an owner. With the GPS chip in smartphones, location-based applications can search for data derived from a location. Further, such applications and functions like QR codes allow information to be directed – narrowcasted – to a particular website rather than the roulette wheel of Google.

Geosocial networking is not merely a digital tagging of people and locations. When a series of geo-coded or geo-tagged places are created, web maps are built. Group activity can then be logged around a place or event. There are many consequences of these applications. There are security issues: if a person logs their position, then others know that. For example in February 2010, a site called Please Rob Me was launched. Please Rob Me sourced data from Foursquare check-ins pushed to Twitter. The point of Please Rob Me was to show the cost of releasing too much information in public. But geosocial networking also allows groups to coordinate their actions. Flash mobs, riots and protests can be organized. Examples of geosocial networking services include Yelp, Gowalla, Facebook Places, Groupon and FourSquare. Yelp enables local searching of the web with attention to particular cities. Gowalla is a location-based social network that enables users to check into 'spots' or log 'trips' in a local community. Facebook Places arrived quite late in the social network's development, in 2010. Users checked in via mobile devices. Groupon is a group coupon that offers deals from local companies. A certain number of users must sign up for a deal and then it is 'on' and redeemable. Women in particular are the market for Groupon, with many 'deals' for health, fashion, beauty, fitness and food. FourSquare is the largest geosocial networking site. It was based on the success and expansion of smart phones with global positioning systems (West 2005). Users 'check in' via an application resident on the device. This 'check-in' releases points and badges for the user. Tiers of achievement on the basis of these locations are reached, including becoming the 'Mayor' of a FourSquare location.

The advantages of geosocial networking are that deterritorialized social networking is spatialized so that local users can share their interests in real space and time. But there are also major opportunities for local businesses, particularly those without more expansive branding or tourist opportunities (Evans 2011). I will provide a personal example to demonstrate this use. When in Oshawa, my husband and I lived in bed and breakfast accommodation. For a three day period, we were asked to relocate so that a wedding party could be housed. However, upon arrival at this temporary accommodation, we had no idea where we were. We had no car, no food and did not recognize our surroundings. I opened up FourSquare on an iPad, found our location, discovered local shops and restaurants, read reviews from users and found the best food, service and price within one kilometre. The great

strength of geosocial networking is that even when our analogue selves do not know where we are, the smart phone or tablet has our coordinates and enables the discovery of geographically relevant information and services.

If my argument was placed in arithmetic: social networking + localism = geosocial networking. The value of geosocial networking is profoundly commercial. While social networking builds personal relationships, geosocial networking constructs relationships between consumers and business. Significantly, very few firms in Oshawa have instigated a geosocial marketing strategy. For areas that are facing economic challenges, these strategies are important. While there may be challenges with infrastructure and a lack of money for marketing, these free or freemium services (Anderson 2009) can source and connect consumers to businesses. QR codes provide information for customers either via print-based publicity materials – in newspapers, magazines or white or yellow pages – but also on the shop front of a business. To provide one example of its use: a restaurant can provide a QR code that not only links to a website presenting a menu, opening hours and specials but demonstrates the sourcing for all the ingredients. A bookshop, even when closed, can display a QR code that provides information to customers about the specific interests of the owner, author events and featured publications.

Certainly there are negativities. Geosocial networking is part of the long term movement to realign the internet and web from a freely available, public service into an individualized, customized, oversharing, business-led, shopping-enabled, e-commerce hub. The gift of the internet was deterritorialization. People can communicate from around the world. Citizens with disabilities could create new opportunities and communication options through a life on the screen. Racism and sexism could be questioned and managed in new ways. Now geosocial networking is creating location-aware applications so that residents in a particular place can receive discounts, find their friends in a restaurant, or check into a place and become a FourSquare mayor, a title without purpose, authority or status.

Social media are fragmented media. They create clusters, collectives and subcultures. The online future is perched somewhere between hyper-individual oversharing and global retweeting. Perhaps a less corporate shared localism is a better option, using the web to amplify social relationships within a particular space, place and community. FourSquare and Groupon are a pathway to that future, enabling the survival of local businesses in third-tier cities confronting economic and social challenges. For little or no cost, marketing can be as simple as claiming a FourSquare location or configuring deals for Groupon. Without an expansive city-wide strategy, small businesses can combine digitization and entrepreneurship to create an awareness of their services.

The positivity of geosocial networking in declining third tier cities is that mobile platforms can transform the relationship with the analogue environment, creating a liveable, walkable city. Much of the slow food movement was and is about buying local. Geosocial networking enables this imperative. But it also provides information about a city. QR codes provide an important example of a strategy to link a physical location with web-based information (Winter 2011). Such opportunities provide a way to invest our cities – particularly our downtowns - with greater interest. They become localized and sustainable. Digitization enables a richer analogue experience. This is the creation of a digital urban infrastructure that can overlay and solve many of the problems of analogue cities. Through geosocial networking, a first moment is emerging where digitization reinvests local places with meaning, and returns history to cities.

Place – location – remains important to people. This creates a paradox. Workers are expected

to move anywhere and communicate with anyone in the world. The combination of a global growth in mobile communication and the domestication of hardware and software means that understandings of both time and place are transforming (Green and Haddon 2009). Yet a greater point needs to be explored. The strength of these mobile ties is still being questioned. Can geosocial networking be used to reinvest neglected places with meaning? As John Quelch and Katherine Jocz realized, "City planners are concerned with the 'legibility' of places – that is, people's ability to comprehend public places and to form mental maps that help steer them through these spaces" (2012, p. 33-34). One way to render locations legible is to use the resources of geosocial networking to offer digital stories of physical locations. If digital media are dug into the ground, then the built environment can also live in a cloud.

Geosocial networking requires particular characteristics: portable media, networked media, global positioning systems, location-conscious computing devices and information and media literate individuals who add content and meaning to a geographical space. Ostensibly, cities were designed to keep the poor from the rich and restrict the rights of some citizens to full participation in the political process. But by retrofitting analogue cities to provide information about the lived experience of the environment, then the injustices of the 19th and 20th century may not be healed, but at least can be addressed. A desire for social change may be enabled, not through shopping but thinking, and not through driving, but clicking while walking.

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THE IMPACT OF THE ECONOMIC CRISIS IN THE IT&C INDUSTRY – EVIDENCE FROM BUCHAREST

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Abstract: Despite its peripheral location within the European metropolitan system, Bucharest has significant competitive advantages – large scale market, high-skilled labour pooling, dynamic business environment, institutional capacity, and knowledge organizations. The location of MNCs has enhanced the domestic small-scale entrepreneurship and the emergence of an innovative IT&C cluster. As the world economic crises stroke almost everywhere, in the case of Bucharest it was enhanced by a political crisis which diminished the industrial growth. In this context we focus on the IT small and medium enterprises which, by surviving the crises and developing even more, show clear evidence of strengthening the cluster identity. Based on the two-digit CANE data on employment, the paper analyzes in an empirical way the IT firms from Bucharest between two representative moments: 2007 the year of maximum growth for Romania and 2010. We attempt to identify the factors contributing to the growth of the cluster and to assess the contribution of the cluster to the generation of regional wealth and jobs. The results shows that, despite of the crises, the local entrepreneurship alongside the continuous foreign interest in the local workforce have pulled together an emerging industrial cluster.

Key Words: *IT industry, entrepreneurship, economic crisis, Bucharest.*

Introduction

New economic geographers argue that increasing returns and externalities are not international or even national in scope, but arise through a process of regional economic agglomerations (Malecki 1981, Markusen et al. 1986, Storper 1986).The agglomerating forces are basically localization and urbanization externalities which tend to lead to the local clustering of economic activity. The symbiotic relations between industrialization and metropolitan growth are extensively documented at the global level (Chakravorty et al. 2003, Davellar and Nijkamp 1989). Industrial success in big cities is a cumulative causation process where increasing returns are derived from industrial clustering. Economic growth is ever more based upon the effective utilization of intangible assets such as knowledge, skills and innovative potential as the key resource for competitive advantage (Roman 2010).The accumulation of knowledge and its spillover into productive capacity through technological change is a central theme of scientific inquiry in regional sciences. Subsequently, a large number of empirical studies have focused on the creation of knowledge, on R&D activities, and on technological innovation as triggers of growing regional economies (Dosi 1988, Frenkel 2001). Knowledge-based economy and “Intelligent Cities” are closely related and stay at the core of the most dynamic regional economies.

Bucharest is an interesting case study due to its quick transformation from an industrial based

economy towards a service based economy (Cees-Jan and Hoogerbrugge 2011). The shift from the communist period, led-by a dominant public sector, towards market-led private developments, has a strong impact on Bucharest urban economy. As a result, Bucharest has recently enjoyed a period of strong economic growth, turning into an innovative city of Central and Eastern Europe.

The paper begins by analysing the shift from manufacturing to services of the metropolitan economy. Deindustrialisation caused major economic and social dislocation with deep consequences on the labour market, sectoral structure and economic specialisation of the city. The radical evolutionary transformations engendered by the transition period were marked by strong social polarisation and regional divergence. Bucharest and some other regional cities have been able to survive the long-run decline since the early 1990s and have taken a different path of urban revival. The gaps between Bucharest and the rest of the country are typical for any national urban network dominated by a primate city. European integration it is thought to act as a powerful push for the enhancement of economic specialisation of the regions. Generally speaking, Romania is attractive for foreign investments because of the low-cost labour, but it seems that recently this advantage has been largely eroded. The second advantage and, apparently long-lived, is related to the pool of skilled labour in high-tech industries. The largest concentration belongs to Bucharest urban economy, therefore the next section of the paper is devoted to the analysis of the IT&C cluster. Next, the results are presented and the factors contributing to the growth of the Bucharest IT clusters are discussed. Some discussion on the IT cluster in time of crisis and conclusions resume the paper.

Bucharest after deindustrialisation

All along the second half of the 20th century, centrally planned industrialization characterized urban development in Romania. The socialist ideology had a strong urban bias and urbanization was considered to have a value per se (Ronnas 1982). Secondary activities and, especially heavy manufacturing industry, were given priority over primary as well as tertiary activities. Sectoral planning dominated over regional planning and, consequently, urban centres became places of concentration of manufacturing activities. As industrialisation has been deeply interwoven in the urban fabric during the socialist period, the highly industrialised regions of the country stood for the highly urbanised as well. Thus, before 1990, Bucharest was the most industrialized city of Romania, a symbol for the communist Romania. In early 1990s, 417 thousand persons were employed in manufacturing, representing 12.64% of the national industrial workforce and more than one third of the total employment at the metropolitan level. As world-widely noticed, industrial cities were at the epicenter of deindustrialisation which had far-reaching consequences determining the redefinition of the urban economies (Doussard et al. 2009). The deindustrialization as part of the economic restructuring was stronger and faster in Bucharest than in the rest of the country and continues to the day.

The metropolitan economy has been subject of a strong tertiarization process, the shift from manufacturing to services played a distinctive role in determining the spatial deconcentration of the Romanian industry. The contribution of Bucharest to the total laborforce in manufacturing went down from 12.64% in 1992 to 8.56% in 2008. Given the high level of industrialisation at the beginning of the 1990s, the drop of industrial laborforce has had a direct influence on the total employment mainly engaged in industry-related sectors, from research and development to transportation, distribution, storage, wholesale and retail activities. Only few regions based on large urbanisation economies (Cluj, Braşov, Prahova, Timiş and the capital city) could pursue a strong tertiarization shift and balance their employment structures. All the rest have suffered dramatic losses of employment due to deindustrialisation combined with increasing

self-employment in agriculture and slow growth rate of services. The loss of manufacturing employment in Bucharest has been higher than the national average all along the transition period scoring 60.63% in comparison with 50.14% at the national level. Markers of the socialist industry in Bucharest (Vulcan, Apaca, IMGB, 23 August, Republica, Electronica, Automatica, Steaua Rosie, Timpuri Noi, Uzinele Chimice Române) have closed down major facilities and initiated a new cycle of economic transformation. The long run decline of industry has been paralleled with the slowing revival of the services. The two sectors have been bound together in the same path of evolutionary transition with implications for the socio-economic sustainability of the metropolitan economy. Similarly the distribution of jobs and incomes has reconfigured the labor market of the city.

There have been two major consequences. On one side, the unemployment rate was constantly under check and scored the lowest value at the national level (1.6% in 2008 and 2.3% in 2010). On the other side, media, legal and business services and high-tech industries flourished and provided a striking contrast with the general trend. The gains for the metropolitan economy were twofold: mutually reinforcing diversification and increasing wealth for people and the city. The dismantling of the urban industry has produced a significant labor input on the local market. As a result, basic services, especially retail activities, found fertile ground to prosper. The urbanization and agglomeration economies turned into drivers for growth and deindustrialisation in Bucharest has been accompanied by lower unemployment rate and growing regional GDP, FDI stock and net earnings. The favorable economic environment has resulted in increasing number of companies and labor force. The total employment has increased by 18.96% in Bucharest during the 1992 to 2008 period, whereas at the national level the trend has been reversed (a decrease of 16.36%). Gradually, Bucharest has become the major attraction for FDI and MNCs location and domestic entrepreneurship is a result of successive spin-offs and spillovers. Bucharest is the richest region at the national level and all along the transition process the regional inequalities have widened. The ratio between the GDP per capita in the richest and the poorest region (Bucharest-Ilfov vs. North-East) has gone up from 1.96 in 1994 to 3.93 in 2008.

"One country, two economies"

Bucharest is a primate city; the ratio between Bucharest and the second-ranked city of the urban system is 1:7. Bucharest makes no exception from the "new economy" model with its upgrading of jobs and wages led by the high-tech sectors which is to be found in big cities (Doussard et al. 2009). Today the urban economy of Bucharest is mainly based on services (70%), industry (20%) and construction (10%). The tertiary sector is important with a high percentage of advanced ICT, telecommunication, services, but also the banking sector (finance).

The economy is strongly driven by foreign direct investments. The National Bank of Romania (BNR) stated that FDI is unevenly distributed in Romania. According to BNR data for the years 2003-2006, the region of Bucharest-Ilfov recorded over 60 percent of total FDI, with the other seven development regions in Romania sharing the rest. Of all East European countries, Bucharest is in the top three of highest FDI after Moscow and Prague (Chilian 2009, Roman 2010). Many foreign companies invest in Bucharest because of a host of reasons. Strength of Bucharest economy is related to its gateway function within Central-and Eastern Europe. Logistics and transport activities are an important part of the service-profile of Bucharest. It has a high investment potential. The metropolitan economy, the large scale market and the diversity of skills play a major role in attracting various investments. Bucharest attracted many foreign companies with its low costs, largely explaining high percentage of FDI. More recently,

Romania's low-cost advantage is gradually eroded in certain sectors, facing increasing competition from Asian economies in clothing and leather, and, recently, in IT industries. The labor force cost has increased by 11% during 2000 and 2005 and recorded the highest raise in 2007 as compared with all the other EU members (Competitiveness Report Romania 2007, UniCredit Group, March 2007).The metropolitan economy is based on dynamic SMEs. In 2005 the number of SMEs per 1,000 inhabitants scored 51.9, two times higher than in NW, W, SE, and Centre and even three times higher than in SW, S and NE regions. Bucharest-Ilfov takes lead in some other ways: high contribution to total profitable SMEs (22.6%); high specific weight in turnover total volume of the sector (50.4%); a profit volume per company more than 2 times higher the national average and 4 times higher than the NE region (Isaic-Maniu, 2008).

Bucharest has a significant contribution to the territorial polarization of economic growth. The economic recession had minor drawbacks on the metropolitan economy. In 2009 the highest employment rate was 62.8% in Bucharest-Ilfov region (Dachin and Popa 2011). Bucharest labor market is characterized by the majority of the employees having a university degree, wages relatively low, and the attractive working ethos for companies. In this region about 20% of the population aged 15-64 years represents employed persons with tertiary education and only 5% with low education. In the 2000s, more exactly between 2003 and 2009, the share of employment in the total working age population has grown in Bucharest by 6.8% whereas at the national level the trend was quite the opposite. Illustrative in this respect is that by levels of education the employment in Bucharest took followed a distinctive way: strong increase of the highly educated people (+6.1%) and slow decrease for the low educated people (-1.1%). The gap in economic performance between Bucharest-Ilfov region and all the other regions is significant and has increased in the 2000s. The capital city is the main attraction for young and educated labor force searching for higher income. One explanation is that the capital city concentrates a high share of services, including services within the central administration which demands for high qualification (Dachin and Popa 2011). Another explanation is that Bucharest-Ilfov is highly atypical region mostly due to the exporter's location bias (main foreign and domestic companies headquarters), high export share in many product sections and groups, and high specialization index (Chilian 2009).

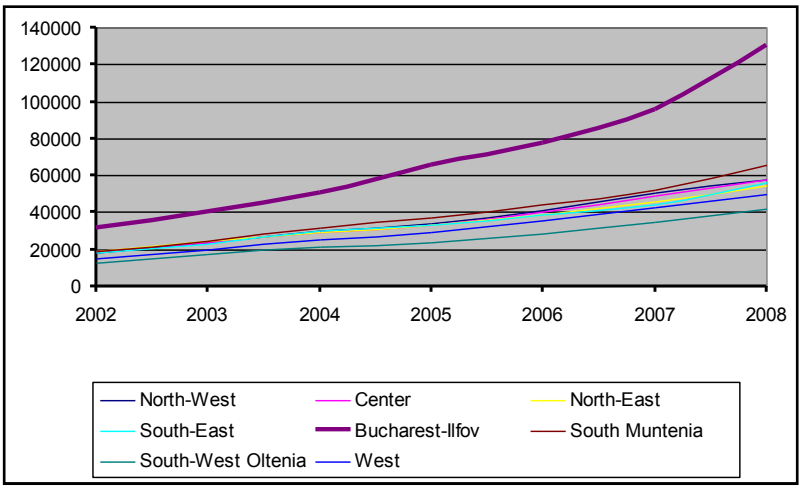

Fig.1 - **Regional GDP (LEI million current prices)**
Source of data: *Statistical Yearbook 2009*, INS

IT&C Industry

At the level of the global economy, the IT&C sector is one of the most important engines of growth. Potentially, it is expected to play a similar role in the Romanian economy: Romania is one of the strongest markets in Europe for technology investment and trade, with a highly skilled technology workforce, competitive costs, top-tier investors and a friendly business environment (ARIS Sector Overview: IT 2008). The Romanian IT market is the second largest in CEE, following Poland. Before the onset of the economic recession in the last quarter of 2008, Romania had the fastest growing IT market in Europe (the growth rate varied between 20.2% in 2004 to 13.1% in 2006) according to EITO (European Information Technology Observatory 2007).

Romanian companies provide a significant contribution to IT outsourcing, business process outsourcing, call center support and product development at the global level. Prior to 2008, the estimations showed a number of over 13,000 IT companies in Romania. The IT sector comprises more than 3,000 technology companies and EUR 400 million in software and IT services revenue each year. About 9,000 companies are IT exporters with a significant growth potential and prospects to reach over one billion EUR in the next 2-3 years. The highly skilled labor pooling is one of the most important comparative advantages of Romania: it stands for the European leader and the 6th in the world by the number of certified IT specialists supplied on the market by 5 polytechnic universities, 59 other universities, and 174 private colleges with technical degree programs. In average, 230 IT specialists/million people graduate every year, one of the highest rates in the world and greater than that of the USA and Russia (ARIS, Sector Overview: IT 2008). Traditionally, Romania has exceptional results at international informatics contests, placed in the top 4 with China, USA and Russia at the latest olympiads.

Besides the abundant and skilled workforce, there are some other strengths of the business environment that help the IT industry to expand: tradition in IT (one of the first European countries producing computers), 16% flat tax on profit, specific incentives (100% income tax exemption for IT specialists in force since 2001), possibility of using the accelerate depreciation for the equipments (50% in the first year), carry forward the fiscal losses for a period up to 5 years, subsidies for hiring and training fresh high school/university graduates, wide availability of language skills. All in all, the IT MNCs found a very fertile ground to develop their activities in Romania. Examples of Siemens, Freescale, Accenture, Ericson, Genpact, Alcatel have developed successful story of locating around the country A number of six MNCs preferred Bucharest as their main location. *Intel Capital* invested US$12 million in Romanian IT services and outsourcing company, Siveco, in Bucharest. *Infineon* employs 250 R&D engineers working on semiconductor design in conjunction with Polytechnic University of Bucharest. *Oracle* employs 100 engineers to develop compilers and development tools. For others, Bucharest is a perfect location to serve the regional or the global market: *HP* set up a BPO for financial and administrative services, dedicated to EMEA region, and looking at expansion up to 1,200 employees in few years; *Microsoft* decided in 2006 to set up a Global Technical Support Center with 700 employees; and *WIPRO* opened a BPO center for IT services covering the East European market with 700 employees.

After the onset of the economic crisis, Business Monitor International forecasted that the Romanian IT spending would record low-single-digit growth in 2010, following a sharp contraction in 2009 and double-digit declines in PC shipments. In 2010, consumer and business IT spending remained constrained by continued de-leveraging and rising unemployment, keeping spending growth below pre-2008 levels. In 2009, the Romanian

government looked to EU structural funds to prevent stagnation in the domestic IT market and stimulate investment. Information and communication technology projects worth EUR125 million had been approved for financing and a total of EUR383 million had been earmarked for Romanian IT&C sector for the 2007-2013 period. Slowly growing would be the computer hardware market. In 2009, there was a sharp contraction of demand and few vendors expected pre-2008 sales levels to be recorded in the near future. Anyway, the low level of computer penetration represents an opportunity for sales increase. Recent statistics suggested than 43.5% of urban dwellers owned a computer, while the nationwide figure for home computer ownership was just 24.6%. Likewise, the software market suffered a decline in 2009 and a slow recovery one year later. Investments by businesses and the public sector are expected to grow by 2014. The enterprise resource planning market is still in its infancy, where larger companies and organizations still provide strong demand. In other CEE states the focus of opportunity has shifted more towards SMEs sector. However, demand has gradually become more sophisticated, with increasing interest in support and technical assistance. The IT services market has passed through a similar path. Spending on IT services contracted in 2009 as enterprises cancelled or postponed IT projects as a result of the economic downturn. In 2010 IT services spending increased slightly driven by an inflow of EU funds and foreign investment. Additionally, the demand for basic enterprise software and hardware systems is far from saturated and continues to be an underlying driver for the services market.

Bucharest IT Cluster: Factors, Data and Methods

The main opportunity for Bucharest is to make a shift from a service-based economy towards a more knowledge-based economy. Various studies (Scott 1982, Feldman 1994, Anselin et al., 1997) have provided evidence of the advantages of the ability of metropolitan areas to attract hi-tech industries, which employ advanced technology and are strongly involved in the process of innovation. In comparison with the national average (0.31), Bucharest scores a value more than double of the Competitive Potential Index (0.68) recording the highest export values and the largest employed population (Cojanu et al. 2010). With a volume of almost two times higher than the second-ranked county, Bucharest is placed on the top position with a 18.1% share of total exports of Romania. In the same time, Bucharest is the main provider of high technology exports in sharp contradiction with the national economy (Table 1). This performance is, at least partially, due to the highly centralized pattern of research in Romania: over 50% of researchers and of the funds directed to this field being still concentrated in the capital, namely the region Bucharest-Ilfov. A recent assessment of research efficiency in Romania and Bulgaria found that only Bucharest-Ilfov region and other two Bulgarian regions score a high value. The analysis used inputs (R&D expenditures, number of researchers, and employment in high and medium-skilled labor) and outputs (number of patents) for 2003-2005 (Roman 2010).

Table 1

Technological Level of Exports (%), 2009

	High technology	Medium technology	Low technology
Romania	1.51	68.16	30.32
Bucharest	18.02	39.19	16.16

Source of data: *Centrul Român pentru Promovarea Comerțului şi Investițiilor Străine, 2010*

During the last few years, there has been a decrease in the number of researchers and an increase of their average age. The main issue facing the field is the low level of financial backing from public funds. In Romania, research and development expenses totalled 653

million EUR in 2007 and its percentage of the GDP was of 0.53%, slightly increased compared to 0.45% in 2006, but still among the lowest levels in the EU (idem). Basically, the field is confronted with the outdated R&D infrastructure and failure to adjust to competitive market conditions. Another major problem consists of the still weak link between research and economy and the relatively scarce capability of putting the research results to good use. In Romania, at the level of 2007, the personnel in R&D comprised around 33,000 employees, the equivalent to 0.6% of the total number of employees, one of the lowest percentages in the EU. According to World Bank's Knowledge Assessment Methodology (KAM), Romania was in 2009 on the 47th position out of 145 countries.

The concentration of IT&C industries in Bucharest is easily to be explained. The first reason is related to the location choices hi-tech industries make, which are considerably different from those made by traditional industries. Usually, after the initial product development and innovation, IT&C firms locate close to centres of research and science and to places where they have a good chance of rapid market penetration. Therefore, the metropolitan area of Bucharest is a perfect location acting as an incubator for the emergence of technological change and, subsequently, of innovative firms. Connectivity and accessibility are major incentives for the co-location of high-tech firms in Bucharest. The Bucharest metropolitan area offers a well-developed, physical infrastructure and therefore it is expected that hi-tech firms will be attracted to locate there. Moreover, due to the slow urban regeneration there are important reserves of land in inner city locations and good prospects for further redevelopments. Skilled labor is of great importance, especially for the development of technical innovations. It is attracted to places with a high quality of life and cultural and educational activities that are more to be found in the large metropolitan areas. Universities play a central role, not only as producers of basic research, but also by creating human capital in the form of higher skilled labor. The importance of basic university research in the stimulation of technological innovation and higher productivity is derived from the public nature of the research, and the resulting positive externalities to the private sector in the form of knowledge spillovers. Both the knowledge spillovers and the human capital development constitute important location factors for private sector R&D and for high technology production. Bucharest universities fuel the IT companies with highly skilled multilingual workforce accounting for 26.8% of the total number of graduates in IT and 42.2% of graduates in electronics in the academic year 2009-2010. The spatial concentration of institutions of higher education, technological research facilities and centers of knowledge in metropolitan areas increases information accessibility. As the cluster is consolidating, spin-offs and spillovers usually occur enhancing the innovative capacity. The agglomeration of firms provides a pool of technical knowledge and specialization, which will later develop new technologies.

Concentrations of business services create the marketing and commercial knowledge necessary for introducing innovation into the market. Their existence reduces the risk level and the cost related to the innovation process by providing important information on regulation, standardisation, marketing, product testing and financial knowledge. Business milieu is another factor explaining the location of IT firms in Bucharest. Entrepreneurship, in general, is more active in metropolitan environments. This is obviously the case of Bucharest where the number of SMEs/1,000 inhabitants is more than double in comparison with the national average (51.9 in Bucharest as against 24.8 at the national level). Entrepreneurship in IT&C is even more visible, the number of companies has grown from 1959 in 2002 to 5206 in 2008 (Fig. 2). Software consultancy and software editing firms have contributed the most to this growth. The economic significance of Computer Software lies both in its role as a primary engine of national economic growth and in its importance in advancing technology-based *regional* and *local* economic development. The majority of these firms are small and independent, being closely

linked to local markets of high skill and high wage labor. As a result, they have a special significance in stimulating local income growth and retaining scientific talent in various communities, a prerequisite for further innovation and economic growth. The recent explosion of IT&C companies may be well explained by their small requirements for start up capital, space, and special infrastructure, and their limited, if any, environmental impact. In the same time, the growing number of IT&C companies shows that the clustering process is firmly on track.

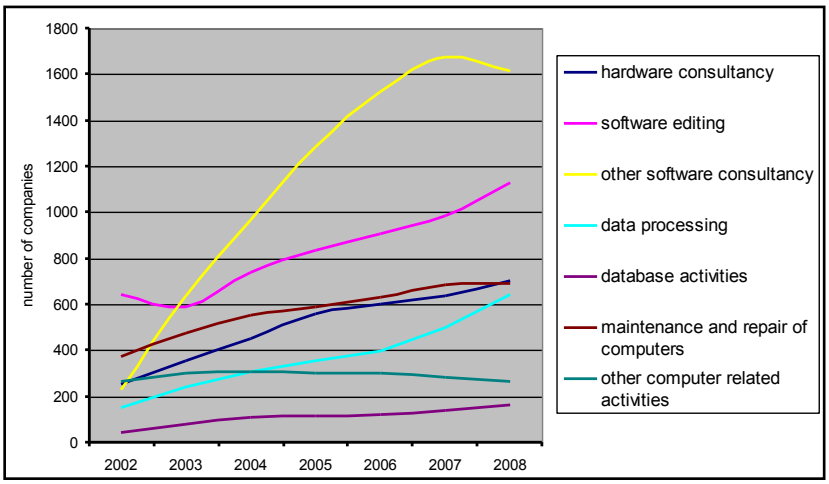

Fig. 2 - **Entrepreneurship in IT&C Industry in Bucharest**
Source of data: *Tempo on line,* INS.

These firms enjoy two types of localization advantages. The first involves Marshallian factor externalities, namely pecuniary benefits in the form of lower average production costs stemming from the spatial concentration of labor (risk pooling) and the spatial clustering of input suppliers (scale economies in the provision/sharing of specialized inputs). Given the scale and quality of human capital in Bucharest, firms enjoy access to large specialized worker pools that reduces search costs for adequate employment. In such an environment, IT employment may be better insured against negative company-specific "shocks", as it can search for another job within the cluster at relatively low re-employment costs. The second involves technological spillovers, that is, non pecuniary advantages, where ideas and innovations circulate from one firm to the others, mutually enhancing their productivity. Besides transportation and transaction cost reductions, these firms are more likely to develop further business relationships and to foster a finer division of labor. For Computer Software firms clustering is economically rationale as they depend largely on non-standardized service inputs such as product design and packaging. Producers of such inputs may be subject to internal scale economies, and linkages to these producers may have geographically sensitive transactions costs. Transfer of knowledge is stimulated through both formal (subcontracts, technology agreements) and informal channels (employment inter-firm mobility, inter-firm interactions, or information exchange encouraged by tacit vertical integration). More over, IT firms are vulnerable to externality effects due to their weak capacity to monopolize knowledge and innovations they create and the strong ability of other firms to imitate.

Industrial cluster identification is dependent on the theoretical framework to which various studies are related to (vom Hofe and Chen 2006). The adopted solutions are based on the

different methodologies as: interindustry linkages, graph-theoretic analysis, statistical cluster analysis and discriminant analysis, PCA and Porters' model - Diamond of Advantage. Other alternatives focus on the measurement approach. Some of the most used solutions of computing the geographic concentration of an industry are: Herfindahl index (H-index), location quotient, growth-share matrix, EG index etc. (Wang and Lin 2008).

The paper follows two directions for the analysis of ITC cluster from Bucharest. The first consists in the statistical validation of a cluster in the named sector, while the second focused on the evolution comparison between two key moments, the years 2007 and 2010. The importance of this period was marked by the profound changes developed as the world economic crisis spread to Romania and by the political instability from the respective years. The methodological result is a concurrent combination of the stages that allowed to prove the existence of a cluster and its viability in Bucharest city. As there is some reluctance (Wolfe and Gertler 2004) on the quantitative methods for cluster identification, the study is supported by additional research that emphasized the clustering of the IT industry in Bucharest. The insight on the cluster identity is supplemented by the authors previous studies on cluster formation, industrial location in Romania and by the studies on Bucharest.

The empirical analysis was the first stage where the solution of cluster identification proposed in the case of Sweden (Karlsson et al. 2003) was adopted. It was enhanced with the location quotient analysis to support the statistical evidence. Then, conditioned by the available data, we focused on the sector dynamic through a simple analysis on the evolution of firms and their characteristics. This guided the analysis to a general image and identification of some factors that were formed in the crisis period allowing the cluster survival. The study of Bucharest's IT cluster follows the above mentioned solution (Karlsson et al. 2003), but it is directed only towards the identification and not on regional evolution and characteristics. From this point of view the stages are:

- number of firms and employees that dominate in relation to regional size;
- regression estimation from the two equations, in which the residual results from Romania's county are kept and then used in the next stage.

$$lnEmp_r^i = a_1 + b_1 lnPop_r + \varepsilon_1$$

$$lnPla_r^i = a_2 + b_2 lnPla_r + \varepsilon_2$$

Emp – employment in sector i of region r
Pop – population of region r
Pla – number of firms belonging to region r and sector i
ε – error term

- the subjective interpretation of the limit. A positive threshold over 10% from the residual results of the previous equations is considered as being enough for a cluster presence.

Furthermore, location quotient creates the basis for discussing the specialization of the IT industry in the city of Bucharest or the IT relative concentration. The computing equation follows the classical setup (Florence 1939):

$$LQ = \frac{e_i/e}{E_i/E}$$

e_i=Local employment in industry i
e=Total local employment
E_i=Reference area employment in industry i

E=Total reference area employment

Exploratory evaluation is the characteristic for the second phase of the study. Differences of the IT sector is drawn upon the primary variables of the firms. For comparison it was used the firms size, profits and their turnovers.

Results

The identification of IT cluster in Bucharest based on the two methods of assessment shows that in both situations the threshold of 10% is crossed-over. Obviously, the city as an administrative entity, is strongly differentiated from the rest of the regions, despite the economic crisis through which it keeps on passing. The regression analysis makes clear that the variables concerning the number of firms, and number of employees are consistent with the viability of the model, showing a slight change between the two years considered (Table 2). The figures show that the IT&C sector in Romania has encountered only minor changes and the tendency of evolution is normal. Within the IT&C industry, the 6201 and 6202 CANE divisions dominate, namely the client-oriented software and consultancy in information technology, and it would have been highly unexpected that during the recession period major structural changes would occur. As the analysis is focused on Bucharest, the regional context is not relevant.

Table 2

The relations between employment / number of firms in the IT sector and the population

Firms	**2007**	**2010**	**Employees**	**2007**	**2010**
Constant (t-value)	−7.277	−7.379	Constant (t-value)	−7.466	−7.438
R2 adjusted	0.74	0.75	R2 adjusted	0.72	0.73
No of observations	42	42	No of observations	42	42

The Location Quotient is calculated at the national level and the regional level of Bucharest-Ilfov region as well. In the former case, the values are **1.91387** for 2007, and **1.81871** for 2010. At the regional level, the figures are 1.07 in 2007 and 1.04 in 2010, respectively. The values indicate a relative stability of the spatial concentration pattern with a slight tendency of decline. Surely, the methodology of LQ analysis shows the clustering of IT industry in Bucharest. According to export base theory, Bucharest is a net supplier of IT products and services, although the scale of activities remains largely unknown.

The presence of the IT cluster in Bucharest is statistically tested, therefore the study applies the second methodological tool. In order to assess the changes between 2007 and 2010, the analysis is based on secondary data supplied by Borg Design data basis, which contains 594,424 firms located in Romania in December 2011. The primary interrogation resulted in a number of IT firms (CANE 62, 63 divisions) of 11,233, of which 41.25% are located in Bucharest. A relatively small share, of 11%, are FDI meaning that entrepreneurship is the major driver of IT industry growth. Due to incomplete statistics, the analysis is focused on firms described by the whole set of data, referring to the number of employees, the net profit and turnover. Firms of the Communication sector have been subject of the statistical analysis. Additionally, the size factor was used to filter the IT firms, identifying the group of SMEs with less than 500 employees. So, SMEs in IT sector totalizes 2,261 firms in 2007 and 2,602 in 2010, of which FDI companies account for 13% of the total in both years.

Firstly, it is worth mentioning the sector dynamics. The number of firms has slightly increased, whereas the share of FDI remained constant. So, the cluster seems to be very robust and the dependence on foreign capital inflow less marked. Even during the harsh time of recession, the number of firms has grown. The same tendency was registered by the number of employees from 13,769 persons in 2007 the number was 5.1% higher in 2010. Many other manufacturing sectors have been severely hit by the ongoing economic crisis, especially labour intensive and resource-based industries. In contrast, the IT sector registered a slowdown of growth and the stability of FDI. Secondly, the IT firms show a high level of performance and competitiveness as their turnover has increased by 11.8% between 2007 and 2010.

During the economic crisis, a number of 1,750 have survived through reorganisations and adjustments. Table 3 shows that the SMEs of 2007 have grown in terms of employee's number with the exception of very small firms having less than 10 employees.

Table 3

Number of firms and employees of SMEs in the IT sector

Employees	<10	10-24	25-49	50-99	100-500
No. of firms 2007	1508	133	56	30	23
No. of firms 2010	1484	147	62	27	30
Employees 2007	4528	3906	2217	5915	3304
Employees 2010	5175	4913	2348	7422	2083

The economic crisis has negative consequences on IT firms profit (Table 4). The ratio profit/ number of firms, as well as the productivity rate, shows a strong sensitivity of firms by size. The profit decrease is more or less sensed by all categories of firms with the exception of medium-sized firms (50-99 employees) which strengthened their economic power. The same tendency is characteristic of the ratio profit/employees. In order to gain a better understanding of the way IT firms have passed through the economic crisis the turnover assessment was necessary to make the connection with the market demand and its characteristics. Turnover decrease is scored by firms having 25-49 employees, while all the other enjoy a sustainable growth. The most remarkable increase is that of firms with more than 100 employees. They even doubled their turnover, from approximately 14.4 million RON to almost 30 million.

Table 4

Economic characteristics of SMEs from the IT sector

Profit/no. of firms					
	<10	**10-24**	**25-49**	**50-99**	**100-500**
2007	43519	334718	807516	692987	2057151
2010	41898	314364	572848	1038951	1587374
Productivity (profit/employees)					
2007	19625.1	23150	22778.9	11925.2	9429.43
2010	18395.6	21285.8	13798.2	14437.3	9415.03

In three year span of time, the number of new jobs totalized 3,119 persons. In this period, as compared with the number of firms, the number of jobs is slightly bigger in 2010. This growth is

explained by the the increasing significance of the IT sector in the metropolitan economy (Table 5). The growing contribution to the regional wealth shows that, in contrast with other economic sectors, the IT industry turned even stronger that before the onset of the economic crisis. Additional arguments in this respect concern the turnover of newly created firms and of the total IT sector. Thus, a smaller number of firms in 2010 produced a bigger turnover than that registered in 2007, the year of maximum economic growth in Romania.

Table 5

The IT&C cluster evolution, 2007-2010

	2007	2008	2009	2010
No of new Jobs	467	1533	761	358
IT Turnover (/year) (Lei)	31,015,605	189,449,216	104,783,586	36,276,168
No of SMS	240	303	185	136
Total Turnover in the IT (Lei)	3,444,454,134	4,172,475,971	4,331,495,529	4,223,508,415
Regional wealth (Lei)	0.9	4.54	2.41	0.86
New jobs/SMS	1.95	5.06	4.11	2.63
IT Turnover / Bucharest Turnover	2.25	2.14	2.35	3.09

The cluster evolution is strongly conditioned by the effects of the crisis. Nevertheless, there are statistical elements that show the positive dynamics of the cluster. The factors and impact of IT cluster on the economic environment are discussed in the next section of the analysis.

The effects of the firms from the Bucharest's IT cluster are hard to asses. Their impact to the regional wealth was developing at accelerate pace, but the crisis diminished the momentum. Even the data available pays a big role for a correct assessment. Even so, one may see the value of the SMS firms in times of crises. Entrepreneurship continued and the number of new firms remained relatively constant. The local initiative can be a generator for long time regional wealth. But even more important, the firms from this sector were powerful enough to employ new workers, when everyone was considering jobs cuts. Major effects are expected in the next decade or so. The reason is due to the overwhelming ratio of SME firms focused on services, rather than innovation or knowledge. Nevertheless, the sustainability of the IT sector is easily noticed; just that is at its very beginning.

Discussions

In Romania, the period of transition that followed the turning point at the end of the 1980s, has been marked by successive crises. Each time, the financial character combined with the political. The crisis that started in 2007 in the United States makes no exception and the effects on the metropolitan economy of Bucharest and implicitly, the IT sector, would be double. The results of the analysis show that the effects are significant but not dramatic. Two stages of evolution of the IT sector can be distinguished. The former is that of slow development based on the impulses accumulated during the economic boom. Paradoxically, the first year of the economic crisis, 2008, has been marked by the strongest growth of all economic indicators:

number of new jobs, profit and turnover, irrespective of the size category. At the first sight, the crisis seemed not to in place yet and the economy would continue to prosper. The IT sector, strongly supported by governmental strategies, shows maturity and represents a growth engine of Bucharest economy.

The second stage is marked by a slow decline of the IT sector, much less dramatic than in other economic sectors at the national and regional level. The reduction of the employees number is accompanied by the decrease of FDI. Even under these circumstances, the IT sector is attractive for entrepreneurship. The number of new jobs created during the period of economic crisis is bigger showing an increasing significance of the sector for the overall economy. Challenged by the current crisis, the IT industry has successfully survived through reorganisations and adjustments. The reduction of the employees number is a matter of reorganisation and new investments indicate that in the last three years the IT sector has been attractive for business. The sector has undergone a diversification process in the same time.

The growing number of IT firms during the time of recession is the result of a strong local entrepreneurship. Supported by the location of MNCs in earlier years, the local entrepreneurship in IT firms is steadily growing. The highly skilled workforce is one of the sources for increasing entrepreneurship in IT firms. There are real chances that the potential entrepreneurship would evolve from a network of suppliers for MNCs to innovative and competitive companies at the European level. The tendency is not convergent yet, but there are some examples, such as RAV and more recently BitDefender, which indicate a strong capacity of adjustment, as long as they have survived the double crisis in Romania and even more than that they registered significant developments.

Concluding remarks

The paper aimed at the evaluation of the current crisis effects on IT sector in Bucharest based on two elements: the empirical analysis of the cluster emergence and consolidation and the descriptive analysis of IT firms. The identification of IT cluster in Bucharest reveals its national character. The correlation with the European and global context of IT industry development is a further objective of the study if statistics on interfirm relations would become accessible. The study helps identifying the potential cores of economic growth in Romania. The connection with scientific research at the international level is accomplished by using methodological tools that worked in similar studies. The paper contributes at highlighting the evolution of a post-communist city at the fringe of the European Union during the economic crisis. In this way, the city is identified as one which needs to be deeper researched in order to be successfully addressed by regional development policies.

The late acknowledgement of the onset of the economic crisis by the Romanian government had limited but positive effects. The small firms have continued to develop encouraged by the political discourses and accumulated growth, even if the gig companies were much more aware of the on coming confrontation with the hardships of the crisis. Subsequently, the evolution of IT sector was positive at the beginning, in contrast with the general trend of decline that affected the majority of economic sectors. There is a slight decrease in the IT sector as well, but there is also a remarkable resilience of small firms to survive during the period of crisis. The IT industry keeps on growing thanks to combined actions of MNCs and entrepreneurship that make this industry one of the most attractive. Apparently, the success of the IT sector is dependent on the development of companies with high value added in the detriment of services firms.

The attempt to evaluate the effects of the crisis on the IT sector is a way to emphasize not only the local but also the national character. In order to gain deeper insights the evolution should be subject of further research in the years to come. Another direction of research is the change of the geographical scale of analysis to the national level. In this way, the national perspective would identify the landmarks for future development strategies by regions and by sectors. Competitive sectors, successful regions and hotspots for intervention would channel the governmental actions for positive outcomes.

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CONSUMPTION OF ADVANCED INTERNET SERVICES IN THE ENTERPRISES SECTOR: THE SPREAD OF TELEWORK IN THE METROPOLITAN AREA OF MADRID

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Abstract: One of the pillars of the technological revolution that began in the seventies was the development of the Internet. This network has evolved in such a way that it now forms a complex structure that radically changed the social and economic dynamics at the end of century XX. Nowadays, new technologies allow anything from communication and information exchange to the realization of complex financial transactions, all from anywhere in the world and almost instantaneously. In spite of the widespread use of the Internet, there are still territories and inhabitants, mostly emplaced in remote rural areas, who live outside of this technological revolution. By contrast, urban areas enjoy a privileged position in the dissemination of the information society by concentrating most of the telecommunications infrastructure and monopolize the most qualified people. But there are many disparities in terms of diffusion of new technologies and these will transfer, in turn, to the enterprise sector which is the subject of this research. The differences in the use of new technologies and more specifically the use of advanced services on the Internet are related to the sector where the population is employed and its level of training. One of the advanced services offered by the Network is teleworking. Nowadays there are companies that offer their employees the opportunity to develop their professional activities outside their headquarters, using their homes as an alternative or call centers enabled with computers and Internet access. The purpose of this research is the study of the consumption of Internet advanced services by companies in the metropolitan area of Madrid, analyzing the spread of telework in more detail,a potential offered by new technologies and which may modify the current pattern of mobility in the main urban areas because it is from here where big companies are guiding the global economy.

Key Words: *New technologies, Internet, Advanced Services, Telework, Madrid*

Introduction

The second half of the twentieth century, as a result of the rise of information and communication technology, gave way to the Third Technological Revolution. This brought about a new model of society known as the Information Society or the Network Society (Castells 2000), and superseded the previous industrial stage, hence, some scientists such as Bell (1974), point out to this historical period as the Postindustrial Society. Among the new technologies that emerge in the Third Technological Revolution include computing, telecommunications, microelectronics, optoelectronics and genetic engineering among others. But there the advancements made in computing and telecommunications which were the reason for the Network of networks, the current and popular Internet. This network enabled space-time to be more and more narrow. The territory became speed and the classic concept

of physical territory, movements and distance, were replaced by transmission and interaction (Ges 1997). These recent technological advancements in communication modes are associated with contemporary globalization (Davies 2004), and cause the formation of a large global network influenced by the flow of communication and economic, political, social and cultural interaction (Short and Kim 1999).

In spite of the great made in the Network of networks in the eighties of the last century, which brought its expansion throughout the world, it was not until the mid-nineties, when the World Wide Web was created, that a great leap in the Internet diffusion process and consequently the Information Society occured. Before this application, the use of Internet was extremely complicated, as it was very difficult to locate and retrieve information. The first browsers and search engines facilitated this process, which led to the creation of a network of global communications with a large amount of information and services that grew every day. At first most Internet users accessed the Net primarily to carry out very simple tasks such as finding information or to communicate with other users. Although the network is becoming more and more popular, currently standing at around two billion users, there are still territories and sectors of the population who live outside of this technological revolution. Today there are many services offered through the Net, by the public or the private sector, ranging from simple hotel bookings or the weekly shopping in a supermarket, to multiple and varied administrative and financial procedures.

Undoubtedly we are witnessing a global opening dominated by communication, as part of a worldwide network that reaches its highest incidence in urban areas. In this global context, the employment situation is closely related to new technologies and the Internet. In economic terms, the information and communications technology eliminate trade barriers and promote the development of international business, leading to the reformulation of corporate strategies (Méndez, 1997). In spatial terms, new technologies cause global cities to concentrate a high percentage of wealth and power, becoming the real economic and political references of modern states (Sassen 2003, Veltz 1999).

With regard to the business world, computer advances change the modus operandi of the companies, information is managed in a more intelligent and more dynamic way and communication is instantaneous and can be done from afar. On the other hand, the net offers companies a new way to promote and sell their products on the market and start buying and selling processes with suppliers and customers. They are certainly very favorable circumstances that significantly change the way to understand business reality (Méndez 1997). However, citizen and company use of the services offered by the Net, especially the most advanced, is not equally distributed in urban areas or rural areas. In the case of urban areas, the presence, use and dissemination of new technologies present contrasts between central cores and their immediate periphery, affecting the citizen's standard of living (Lois et al. 2010).

In this research an analysis of the use of advanced Internet services in the business field in the metropolitan area of Madrid is carried out, with special emphasis on the spread of telework. The study of advanced network services consumption in the enterprise sector, especially the spread of teleworking implies several variables, emphasizing the education of the population, both general and training in new technologies and the spread of these in the business sector. Along with these indicators it is also necessary to take into account other factors such as activity sectors where the population works, population dynamics, ICT infrastructure available, business activity structure and sectors, etc.

Methodology

In order to research into the consumption of advanced Internet services by the business sector and the spread of telecommuting in the metropolitan area of Madrid, it was necessary to use various sources from the National Statistics Institute of Spain, the Institute of Statistics of the Community of Madrid, and the National Observatory of Telecommunications and Information Society of Ministry of Industry, Tourism and Commerce of the Government of Spain. To carry this out we used a quantitative methodology based on statistics from public sources, both from national and the Community of Madrid sources.

The study into the use of advanced Internet services and, in particular, the spread of telecommuting in the metropolitan area of Madrid, required the same available data relating to territorial units but the sources presented the data at a different spatial scale. The Statistical Institute of the Community of Madrid offers socio-economic data such as income per capita, the population's level of education, areas of the population's employment, among others, following the regional division NUTS 4 of European Office for Statistics and data on the use of information technology and communications and electronic commerce in enterprises of the Community of Madrid for more than ten employees, with the same territorial basis. However, no data was available for teleworkers with the same level of territorial disaggregation, so data referring to the whole Community of Madrid had to be used. The statistics available on telework in Spain are very scarce and those that are available follow the regional division of the European Office of Statistics, NUTS 2 level. This makes carrying out exhaustive research into the diffusion of telework at the provincial level (NUTS 3), or groups of municipalities (NUTS 4) more difficult.

Madrid and its metropolitan area

The municipality of Madrid has a population of 3,273,049 inhabitants (INE 2010) and the metropolitan area 2,682,320 inhabitants (INE 2010), making a total of 5,955,369 inhabitants. The city and its metropolitan area are structured, following the regional division NUTS 4 of the European Office of Statistics, in five statistics units: Madrid, North Metropolitan, East Metropolitan, Southern Metropolitan and Western Metropolitan (Fig. 1). In the last few years, Madrid has received the influx of thousands of immigrants from other countries. In 2009, the foreign population resident in Madrid and its metropolitan area totaled 808,850 inhabitants (13.6%). The Metropolitan North, with 148,640 foreigners of a total population of 312,351 inhabitants, showed the greatest proportion of the foreign population (47.6%), far above the 5.3% of the municipality of Madrid (IE 2009). This has made Madrid and its metropolitan area become a multicultural reference in Europe. The advent of these has immigrants changed the social and cultural life of this city and has boosted the economy with the employment of thousands of workers in the construction, industry and service sectors.

The occupied population is employed mainly in the services sector, with values between 81.3% in the municipality of Madrid, and 67% in the East Metropolitan. The primary sector has little impact on economic activity, with values always below 1%. Construction and industry maintain a significant presence in the South Metropolitan (30.6%) and East Metropolitan (32.4%). Conversely, in the municipality of Madrid there are only 18.2% of the employed population in the secondary sector (IE 2001). In the urban area of Madrid, outlying cities conform additional spaces and act as sub-centers associated to relatively specialized activities (Méndez 2002). This specialization of cities (shopping and leisure parks, business, industrial, logistical, technological and scientific) causes some spatial segregation which results in significant differences in the distribution of income per capita. Thus, the North Metropolitan (Alcobendas,

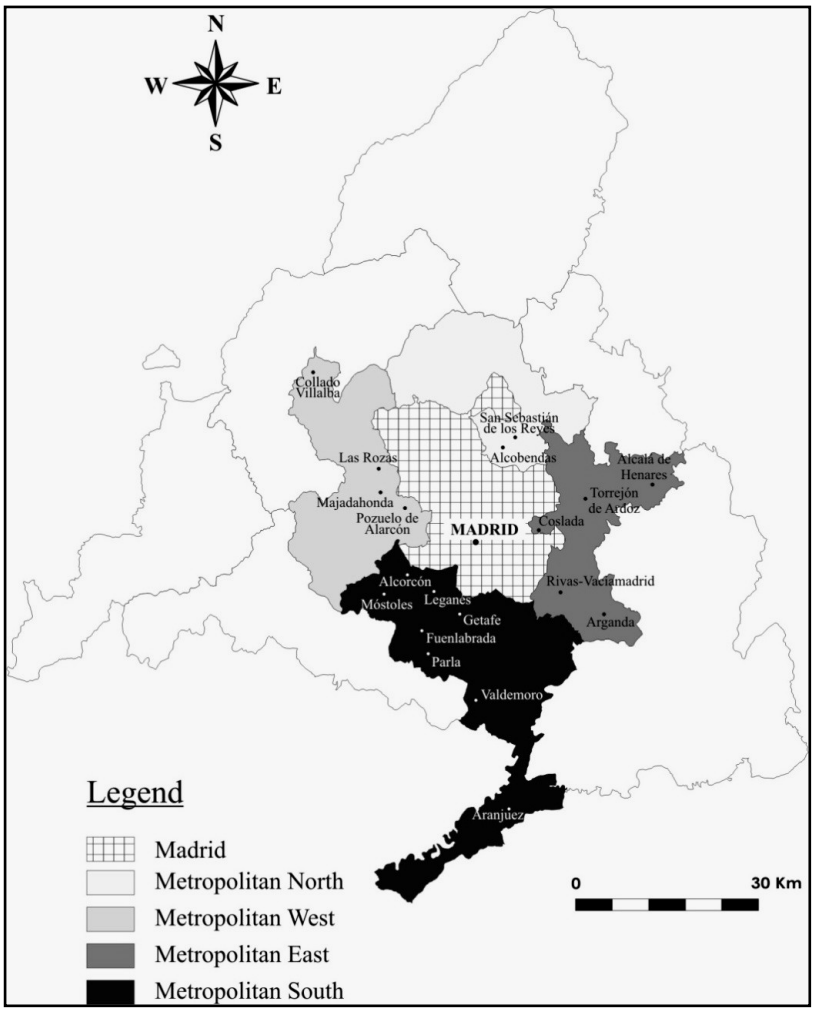

Fig. 1 - **NUTS 4 statistical zonification of the Community of Madrid**
Source: Institute of Statistics of the Community of Madrid, 2011.

San Sebastian de los Reyes, Tres Cantos) registers the best values with € 49,965 per citizen, much higher than the values of the South Metropolitan (€ 18,544) and slightly higher than € 38,539 in the municipality of Madrid (IE, 2010). These differences were also noticed in the use of advanced Internet services by the population (Lois et al. 2011), therefore this issue led us to research what the situation is to this respect in the business field.

The consumption of advanced Internet services in the enterprise sector

According to the Central Business Directory of the National Institute of Statistics, in Spain there are about three million, three hundred thousand companies of which 95% are microenterprises (with fewer than ten employees), although these only concentrate 26.7% of the employee total.

Large companies (more than 250 employees), represent only 0.2% of the total, and give work to 26.7% of the employed population. Of the total companies, six in ten has its headquarters in four regions, Catalonia (18.5%), Madrid (15.3%), Andalucía (15.1%) and Valencia (10.7 %). In the case of Madrid, the company structure follows the same pattern as at the national level because of the five hundred thousand companies that have their headquarters here, 95% have fewer than ten employees. The study of the uptake of advanced Internet services in the enterprise sector as well as the spread of teleworking involves analysis of the indicators related to ICT infrastructure and its use by staff and also relate to other socio-economic variables such as the population training, the new technologies degree of use and the activity sectors where people work. This research studies the use of advanced Network companies with 10 or more workers because there are no official statistics for microenterprises.

The spread of new technology equipment in enterprises with 10 or more workers in Madrid is very high because almost all of them have a computer and Internet access through broadband, regardless of activity sector and size. Besides these basic indicators, the use of computers connected to the network by employees, and if companies have their own website and the uses given to them were also considered. From the spatial point of view and regarding the use made of technology workers in these companies, some differences were observed between different regions in the metropolitan area. If in the whole of Madrid half of workers using computers are connected to the Internet, in the metropolitan area, the highest values are recorded in companies located in the north and west metropolitan area, with values above 60%, while the lowest are in the south and east metropolitan areas. These differences were also detected in the size of the company and the activity sector, registering higher values in large companies and in the service sector (Table 1).

Table 1

Equipment and use of ICT companies in the metropolitan area of Madrid (%)

	Statistical Zones				
	Madrid	Metropolitan North	Metropolitan East	Metropolitan South	Metropolitan West
Enterprises with Internet	98.9	97.8	98.7	98.8	99
Workers that use Internet[1]	52.3	60.8	41.3	48.8	62.5
Enterprises with Broadband	99.3	99.7	99.6	99.3	99.6
Enterprises with Website[2]	88.5	87.8	83	82.6	87
Enterprises that bought on Internet[3]	35.9	33.7	29.5	26.2	31.5
Enterprises that made payments on line[4]	72	65.6	65.5	60	70.6
Enterprises that use the Internet interact with Public Administrations[5]	90.9	91.4	86.4	88.7	90.4

Source: Institute of Statistics of the Community of Madrid, 2006

(1) Of the total of people
(2) Of the total of enterprises with Internet connection
(3) Of the total of enterprises with Internet connection
(4) Of the total of enterprises with purchases through the Net
(5) Of the total of people in enterprises with Internet connection
Note: Data refers to enterprises in the Community of Madrid for more than 10 workers excluding agriculture, livestock and public administration.

Other basic indicators that were considered were the presence of own website and the main reasons for use, because this tool can serve as a platform for various advanced network services (e-commerce, electronic banking or e-learning) or as a mere fact sheet that serves only to provide information for the presentation of the company and its products. Despite widespread access to Internet using broadband, the case is not the same with the web sites where 15% of companies use this tool. From a spatial point of view no significant differences were detected, although the presence of corporate websites in Madrid and the North and West Metropolitan is slightly higher than in other regions in the metropolitan area. As for use, almost all companies use their website as a presentation of themselves and their products, but only 20% of these companies offer electronic commerce in the whole community of Madrid. The same previous pattern is described even when analyzing what happens in the metropolitan area. Companies in the metropolitan north and west have a greater number of enterprises buying and selling on the Net and making payments online, and they also interact more with the public administration, although in this last indicator the differences are less pronounced (Fig. 2). On the other hand, disparities in the size of the companies in the group of large enterprises have also been detected, more than a quarter have never bought online, while only one in ten have done so in the group of small and medium companies.

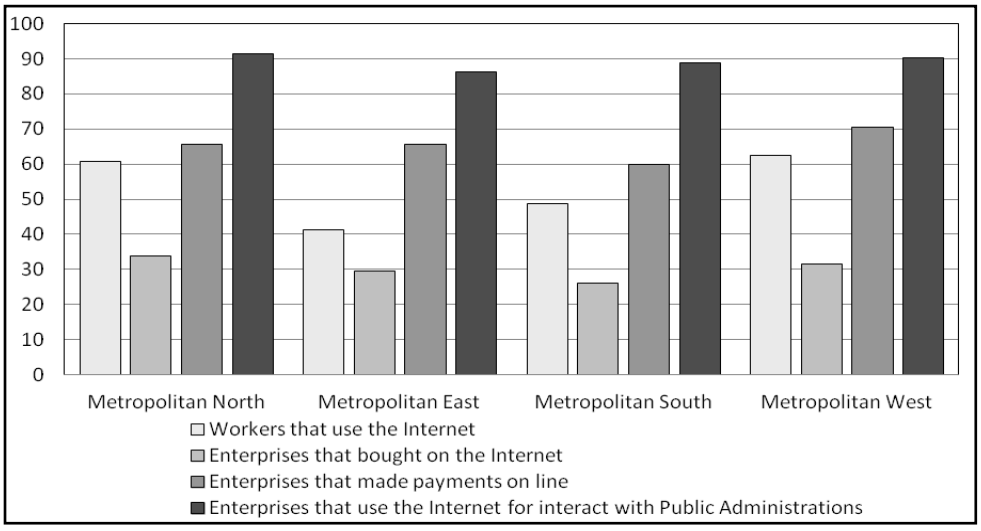

Fig. 2 - **Use of ICT in enterprises in the metropolitan area of Madrid**
Source: Institute of Statistics of the Community of Madrid, 2006.

The spread of electronic commerce was one of the advanced Internet services that have been analyzed in companies in the metropolitan area of Madrid. In this case, we used two indicators; companies that have made Internet sales and the proportion of e-commerce sales over total sales. In addition to electronic commerce, we studied the degree of interaction in business with

the public administration through the Net. In the metropolitan area of Madrid, in companies established in Madrid and the west and north metropolitan, there is a higher percentage of sales through electronic commerce on the total sales, and it is in these regions where there are a higher proportion of companies that sell on the Net. In this respect there is a difference of more than eight percentage points between the southern and western metropolitan area in the percentage of companies that sell on the Internet (Fig. 3). These differences are found in the use of new technologies and, especially, in the use of advanced network services, which are related to the sector's activity, where the employed population has an equivalent degree of education. In the metropolitan area of Madrid, the south and east region is where more negative data is recorded in regard to the spread of new technologies, both in business and in society, as well as the educational level and income per capita. In these two regions the proportion of the population employed in the service sector is less in detrimental to those employed in construction and industry. The opposite case is recorded in the northern and western metropolitan region where the spread of new technologies is higher in these areas.

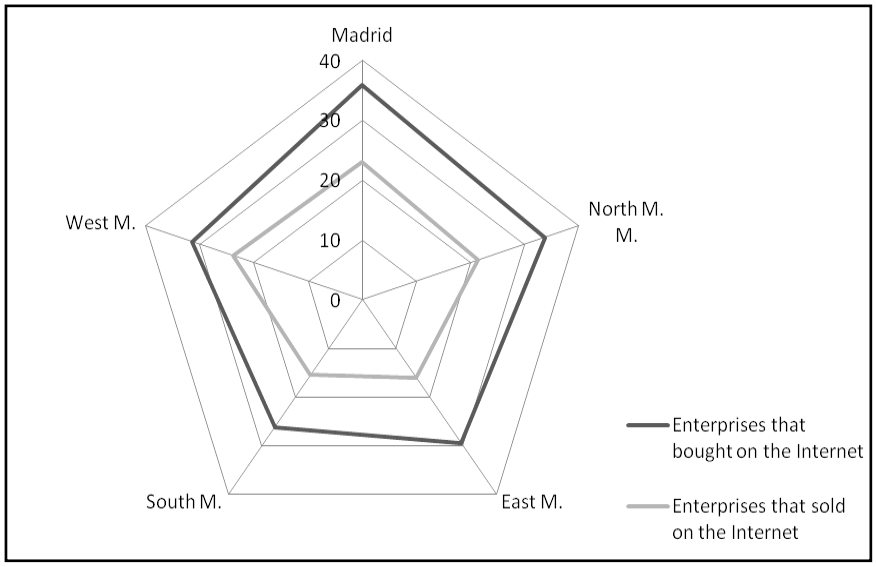

Fig. 3 - **The advanced Internet services in the enterprise sector**
Source: Institute of Statistics of the Community of Madrid, 2011
Note: Data refers to enterprises in the Community of Madrid for more than 10 workers excluding agriculture, livestock and public administration.

Telework and its implementation in the enterprise sector of Madrid

Teleworking came about as a way to organize such work activity that uses information and communication technology in order to enable distance working, either from a manager's or an employee's home, in commuting, whether it be to airports, hotels or other mobile locations (mobile teleworking) or in call centers or satellite offices designed to reduce the movement of workers (Martinez et al. 2006). According to Grimes (2000) teleworking originated in urban or suburban areas, despite imposition in rural areas, and the characteristics of the activities are, in large, partly associated with processing, management and information recovery. This author defines it as work carried out away from the company location through the use of new

technology, both to communicate and to exchange information with other employees and customers (Grimes et al. 2003). Simpson et al. (2003) agree with Grimes in relation to the location of telework in the city and they place its origins in the early seventies as an answer to the need to reduce energy consumption, pollution problems and the oil crisis.

Teleworking has a series of benefits among which are: the freedom to work from home, the avoidance of living in large urban areas, increasingly in areas away from city economic and financial centers (Muhammad et al. 2007). Likewise, it expands the process of suburbanization and counter urbanization by improving the welfare of people while avoiding daily commuting to company headquarters. With the spread of telework the household takes on a new role due to the increased number of services derived from the implementation of new technologies. The home ceases to be only a place to relax,rest and spend leisure time and acquires new functions as a workplace, training place, etc. (Cairncross 2001). At the same time, teleworking allows a balance between work and other daily activities enabling greater integration of professional and private life. Moreover, it must be emphasized that, in many cases, telework has removed the concept of "the working day" with one of "continuous availability" (Mattelart 2002).

It seems obvious that teleworking reduces the movement of the employed population to the workplace, reduces congestion caused by excessive traffic (Hjorthol 2008, Safirova 2002), helps to optimize energy consumption (Rhee 2007) and improves citizens' standard of living (Teo et al. 1998). But some of these considerations need to be clarified. For instance, employees covered by the mobile telework modality are distinguished by their great ability to move constantly. On the other hand, teleworking is not always associated with an improvement in citizens' standard of living. Some authors believe that teleworking implies a greater availability of the employee to work, often sacrificing hours destined to leisure (Rhee 2007). Simpson et al. (2003) points out this respect, that teleworking can also cause worker isolation. But this isolation is, after all, subjective because it depends on factors like the type of work that is being done, the worker's attitude to technology, as well as their personal and geographic location. Such deficiencies can be covered, according to the authors, with a number of days in the office or by keeping regular connections with company headquarters.

But the spread of teleworking not only has advantages and benefits, but it also has negative consequences. One is the increase in an individualism culture among the group of teleworkers as a result of poor communication between the company and the teleworkers, and even difficulty involved in separating professional and personal life. Many teleworkers have an urgent need to check email at night and during the weekend, with the fear of not consulting messages that could be relevant for their work in time. It is very important to minimize these problems and try to facilitate open communication between the teleworkers and the company in all matters relating to cooperation in order to take part in joint projects and informal communication (IBM 2005).

Regarding the study of the spread of teleworking in the enterprise sector in Madrid, it is necessary, in addition to specific indicators that refer to telework, to take into account other variables because it is closely related to the type of activity carried out by the company. These include those related to the population's education and the degree of new technologies usage. The statistics related to telework are very scarce and, in the case of Spain, they are at regional level. This makes it impossible to carry out exhaustive research at municipal level or by groups of municipalities (NUTS 4) as has been done in the case of the use of advanced Internet services.

The spread of telework in Spain is still too limited, although it has undergone significant growth over the past ten years. According to the Institute of National Statistics, in Spain in 2011 only 21.6% of companies had employees partially working off the company premises and accessing company information and communication technology from other locations. The region that has more companies with teleworkers is Catalonia with 27.4%, followed by Madrid with 27.3% and the Basque Country with 23.2%. On the other hand, there are communities where telework has less impact, as is the case of Extremadura, the Balearic Islands and La Rioja, where only 15% of companies have teleworkers. This data is far removed from that achieved by the enterprise sector in equipment and basic uses of the Network. In the case of companies with ten or more workers in Madrid, taking data for the year, 98.5% had computers, 98.4% had broadband Internet access, 69% of companies with Internet had their own website, and 97% use email. Even in the consumption of some advanced services on the Internet, companies in Madrid registered positive data, where 91% use the Internet to contact the government, over 70% make online payments, and 36% make purchases on the Internet. However, the implementation of teleworking in the companies in the Community of Madrid come in much lower positions despite the advances made in the last five years, rising seven percentage points in 2011 in 27% of companies with telecommuters.

Concluding thoughts

The study into the use of advanced Internet services in companies in the urban area of Madrid concluded that there is a direct relationship between the use of information and communication technology, and some socioeconomic indicators such as per capita income, the qualification level of population, and its employment sector. The number of Net users has grown significantly over the last ten years, especially in the Community of Madrid, and likewise the number of services offered by the network, both from the government and the private sector. In the metropolitan area of Madrid, some differences were observed regarding the use of network services by the enterprise sector, that arise from disparities in the level of the population's education, income per capita and industry occupation. The north and west metropolitan registers the highest percentage of Net users, and it is also where companies located in these two regions have the largest number of registered e-commerce sales on total sales, where most companies carry out electronic commerce in relative values, and where a greater number of firms contact, through the network, the public administration, although in the latter the differences are less pronounced. This data is directly linked with income per capita in these regions, which is the highest in the region, as well as the educational level of the population and the proportion of assets in the service sector.

Regarding the spread of telework in the Community of Madrid, this is presented as a new way to offer new technologies for the restructuring of the organizational model and the production process in the enterprise sector in the information society. It is an alternative way to integrate the younger population and the highly skilled into the labor market and to reduce daily journeys with the corresponding energy consumption and environmental impact. It has achieved significant advances in the process of immersion of the enterprise sector into the information society for practically all companies in the community of Madrid, through having an Internet broadband connection, and the consumption of the advanced services Network in recent years. But despite Madrid coming top with the highest proportion of companies with teleworkers at 27%, significant efforts are needed to consolidate this new way of working. In the spread of telework process, new technologies have a crucial role, but they, themselves are not able to carry this out; the companies are the main protagonists in this process. Economic pressures and the competitive environment lead companies to seek solutions to optimize their productivity, reduce costs and outsource some jobs. The enterprise sector in the Community of

Madrid has all elements to promote the spread of telework, because this region has the infrastructure and the human capital necessary to carry it out.

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DEVELOPMENT-INDUCED DISPLACEMENT IN ROMANIA: THE CASE OF ROŞIA MONTANĂ MINING PROJECT

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Abstract: This paper proposes a critical discussion of the population displacement processes involved in the Roşia Montană gold-mining project within the theoretical framework of development-induced displacement (DID). We begin with an overview of the geographical context of the rural community, focusing on the social and economic structure of Roşia Montană. After assessing the relocation and resettlement processes, we examine several problems related to the compensation mechanism set up by the mining company. The aim of the research is to highlight the complexity of the consequences of development-induced displacement and the limits of the policies of relocation and resettlement in the area.

Key Words: *gold mining, development-induced displacement, relocation, resettlement, Roşia Montană, Romania*

Introduction

The village of Roşia Montană is involved in one of the most debated problems in Romanian society, having also a regional and global significance. It refers to the proposed plan of displacing the local population to make room for a large-scale gold mining project. It was initiated in 1998, as a joint venture of Gabriel Resources (80.4% shares) and the state-owned Minvest (19.3% shares), and will use the open-pit mining process and cyanides for gold extraction (RMGC, 2012). The consequences of the project include the destruction of 1,663.89 hectares of mountain area and the displacement of the majority of the local population (RMGC 2006, p. 1). The mining project triggered one of the largest protests against industrial development in Central and Eastern Europe.

The company began the relocation of the local population in 2002, in the absence of the government's approval for the mining project. This raises numerous sensitive problems, connected to the local and national socio-economic and political context, but also touches upon the more general practices of forced resettlement. Our paper discusses the process of population displacement in the case of Roşia Montană within the theoretical framework of development-induced displacement. The aim of the research is to examine the complexity of

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the consequences of development-induced displacement (DID) and the limits of the policies of relocation and resettlement of rural communities in the mining industry in general.

Methodology

This paper is based on the conceptual and methodological framework provided by the DID literature. We use mainly the critical assessment of policies of relocation and resettlement included in big development projects which require the displacement of the population affected by such projects. The analysis of the Roşia Montană population dynamics and structure is based on statistical data from Romanian censuses and official documents provided by the local administration and by the mining company RMGC (INSSE 2002, 2012, Varga 2002, RMGC 2006a). The discussion of compensation for the displaced persons' lost assets is based on reviewing the World Bank's policies and learning from the recent recommendations for improving the current practices in the field (Cernea 2000, De Wet 2006).

Development-induced displacement is a problem-driven approach to the phenomenon of forced migration caused by big development projects, such as dams, mines and other industrial enterprises. DID emerged both as a new academic field and as a policy response to the complexity of the social, economic, and political problems involved in this category of population migration (Cernea 1996, 2000, Turton 2006). The emergence of this field is connected to the work of Michael Cernea (1997, 2000, 2003a), a World Bank chief analyst on issues of population displacement and resettlement who had a major contribution to the adoption of the World Bank's Operational Policies and Bank Procedures (OP/BP 4.12, 2001, revised in 2004). Problem-framing in DID is typically cross-disciplinary, involving approaches from sociology, economics, geography, political science and anthropology. The study of local communities' opposition to displacement for example, is based on the study of new social movements in sociology and on the issue of cultural identities in anthropology (Oliver-Smith 2006), while the focus on poverty alleviation reflects the economic analysis in development studies (Kanbur 2003, Yan and Qian 2003).

A core issue in DID concerns the social and economic risks for the displaced persons and the strategies of addressing these risks by better policies. Population displacement has tremendously complex social consequences (Price 2009), the condition of vulnerable groups being among the most sensitive issues in the field. As Cernea explains, "*all forced displacements are prone to major socioeconomic risks*" (2000, p. 19). A considerable attention in the literature is given to specific categories of population affected in particular ways by displacement, such as women, elderly persons, children or ethnic groups (Newton 2008, Bisht 2009). The extreme consequence of displacement is the annihilation of community, or "social disarticulation", a phenomenon widely documented in the field (Rew, Fisher and Pandey 2006, Scudder 1996, Stein 1998, Cernea 2003a, De Wet 2006). In parallel, other authors insist more on the psychological or cultural dimension of displacement, discussing individual and collective losses which are difficult to be quantified and therefore typically ignored in resettlement programs (Fernandes 2000, Hirschon 2000).

A usual distinction in the policies of population displacement is between resettlement and relocation. The first consists in the construction of a new residential area where the displaced persons would be moved, and the latter is based on the cash compensation for properties, followed by the relocation of the former owners to a different place. This distinction is based on the World Bank's operational policies on population displacement (World Bank 2001a). The principle of compensation is of fundamental importance in the practice of relocation and resettlement. Differences in the effectiveness of compensation packages are routinely

examined in DID literature (Morvaridi 2004, Swainson and McGregor 2008). The idea of an equitable compensation and livelihood restoration is tremendously complex from a policy perspective and also raises a number of complicated ethical questions (Penz 2002).

From a policy perspective, there are numerous sensitive problems related to the calculation of compensation packages and to the elaboration of resettlement strategies. Numerous studies led to important policy recommendations for decision-makers in resettlement projects, building on the vast experience in the field. While these recommendations aim at minimizing the social, economic, cultural and psychological risks in general, compensation remains largely related to national legal and political contexts. It is symptomatic that in the recent debates on improving resettlement policies we find calls for more "generous" compensations or for raising the awareness of gender and ethnicity, but the practice of resettlement still abounds in irregularities and questionable decisions (Rew, Fisher and Pandey 2006, p.55, Cernea 2000, p. 31, Oliver-Smith 2006, p. 167).

Despite significant progress in relocation and resettlement policies, the field is still undermined by unreflected ethical standards (Penz 2002) and inconsistent policy implementation. Even if many governments seem now more committed to avoiding displacement where alternative projects are possible, in reality the number of resettled populations has been constantly increasing during the last decades (UNHCR 2005). Taking into account the "inherent complexities" in DID, the consensus in the field is that, in practice, the established policies cannot provide sufficient safeguards against the complex social risks involved in resettlement (De Wet 2006, p. 181, pp. 190-193). As we will show next, the inherent limits in the policies of resettlement, combined with pre-existing social and economic vulnerabilities at Roşia Montană, increase the risks commonly associated with development-induced displacement.

Study area

Roşia Montană is located in the Apuseni Mountains, in the north-west of Alba county (Fig. 1). Of particular interest from a geographical point of view is the dispersed households, small farms and villages (Turnock 2005, pp. 37-39). There were different stages in the dynamics of population in Roşia Montană. The population of Roşia Montană was of 3,290 inhabitants in 2002 and decreased to 2,609 in 2011 (INSSE 2012). Birth rates in Roşia Montană are within the national average, but mortality rates (13.5 per 1,000) are among the highest in Romania, due to a number of factors, such as work-related diseases and an ageing population. After the fall of communism, following the closing of mines, population decreased significantly, mainly due to the lack of local employment opportunities (Roşia Montană Town Hall 2012, p. 13). Besides these elements, the demographic downturn is especially determined by the relocation and resettlement processes, approximately 1,000 people leaving the village between 2002 and 2012.

The village had a significant ethnic and religious diversity, gradually reduced in the last decades. Ethnic and religious diversity is closely related to the history of mining in the area. During the Austro-Habsburg Empire the area was colonized with migrant workers of German and Hungarian origins (Varga 2002). There were also migrants of Jewish, Slovak and other ethnic origins. Gradually, they formed the valuable multicultural diversity of the village. If we compare data from the 2002 and 2011 censuses, it appears that the majority of ethnic groups have significantly decreased both in absolute and relative numbers (INSSE 2012). The process of ethnic homogenization began much earlier, after 1918, but in the last two decades evolved towards a significant loss of cultural diversity. The main religions present in the village are Romanian Orthodox, Roman Catholic, Greek Catholic, Protestant Unitarian, and

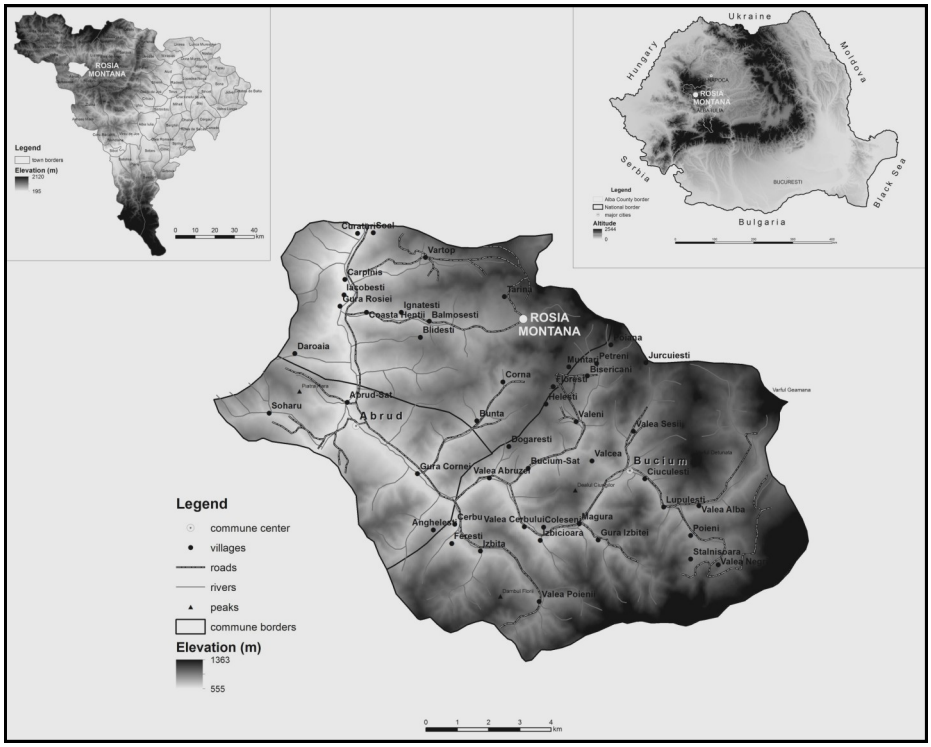

Fig.1 - **The location of Roşia Montană**

Neoprotestants (Varga 2002). Similarly with the ethnic trend, there was a loss of confessional diversity (INSSE 2012).

Roşia Montană was an important mining center, but the decline of mining activities led to its inclusion in the category of mono-industrial areas. Numerous aspects related to mono-industrialism in Romania were examined in the context of the socio-economic development models for post-communist societies (Ianoş 2000). A sensitive issue in this context is the strategy of job creation in previously mono-industrial areas. Leaving apart the jobs offered by RMGC, there are very limited employment opportunities at Roşia Montană. In 2003, 49 people were employed in trade-related activities, and 589 persons in the mining industry, approximately 450 persons being employed by RMGC in 2012 (Olaru-Zăinescu 2006, p. 14, RMGC 2012). Unemployment in Roşia Montană is currently 15% (INSSE 2012). Significantly, approximately 80% of the active population lives from subsistence economy. Local access to public education includes four elementary schools, secondary schools and kindergartens, attended by 330 students and served by 26 teachers (Roşia Montană Townhall 2012).

Results and discussions

The village of Roşia Montană is probably the most mentioned Romanian village in the current public debates on socio-economic development. Its popularity is connected to the mining project proposed by RMGC, which includes the relocation and resettlement of its entire population. The RMGC gold mining project was in a process of evaluation in the last ten years,

several authorizations being released, while others being still under government supervision. The project occasioned the most important movement against an industrial development project in post-socialist Romania, motivated by the fact that it would displace the majority of the people from Roşia Montană and from the neighboring villages. Additionally, the mining project poses serious environmental threats, locally and regionally, related to a gold-extraction process involving cyanides and other high-risk technologies in process considered by numerous experts and environmentalists as designed and planned without careful consideration of risk-avoidance mechanisms.

The process of population displacement included two distinct phases. Between 2002 and 2004 there was the first stage of relocation, based on the so-called "willing-buyer/willing-seller" principle. In 2006 RMGC produced a redesigned resettlement and relocation plan, the *Management of Social Impacts: Resettlement and Relocation Action Plan* (MSI), which includes a comprehensive scheme for population displacement and claims to address the economic and social dimension of Roşia Montană's population. The plan reportedly complies with the World Bank policies and procedures (Operational Directive 4.30) on involuntary resettlement (RMGC 2006a, p. 1). As defined in MSI, relocation consists of the "use of compensation to purchase a property of the owner's choice", while resettlement is the "use of the compensation to purchase a new house built by RMGC on a plot located on a resettlement site developed by RMGC, or self-build a house located on such a site" (RMGC 2006a, p. 36).

In the first phase, between 2002 and 2004, the company tried to maximize the relocation procedures, RMGC making extensive property acquisitions in the area. As a result, a part of the local population left the village after selling their properties to the company. The amounts paid by the company were calculated at the market value. The estimated number of the displaced people was initially announced to be of approximately 2,000 being later recalculated at approximately 4,000 people. After 2006 displacement was carried on in two forms, which included both relocation and resettlement.

As a result, approximately 1,200 persons were displaced in the period 2002-2012. The total number of households proposed for relocation and resettlement was 794. According to the official documentation provided by RMGC, a number of 143 houses were uninhabited, 501 families chose relocation based on the willing buyer/willing seller principle, and 150 families opted for resettlement packages (RMGC Website 2012b). A distinct category included 100 households inhabited by a single elderly occupant. The relocated population moved either to towns and cities such as Arad, Timişoara, Cluj, Oradea, Deva, Alba Iulia, Abrud, Câmpeni or in the neighboring village Bucium.

Two sites were designed for resettlement. First was the quarter of Recea, in the town of Alba Iulia, where 150 families moved in 2008-2009 (RMGC Website 2012b). The second resettlement site is at Piatra Alba (Roşia Montană Nouă), situated at the edge of Roşia Montană. The latter is currently under construction, but a number of 25 families have already been allocated construction lots in this neighborhood (Fig. 2). In response to the critiques regarding the destruction of the traditional way of life by resettlement, the new site is closer to the centre of Roşia Montană and promises to become a "modern – yet traditional – village" on the 60 hectares now available for the project (RMGC Website 2012b).

An assessment of the relocation and resettlement process

The research on population displacement generally shows that the main advantage of resettlement against relocation consists in the lower probability of social disarticulation

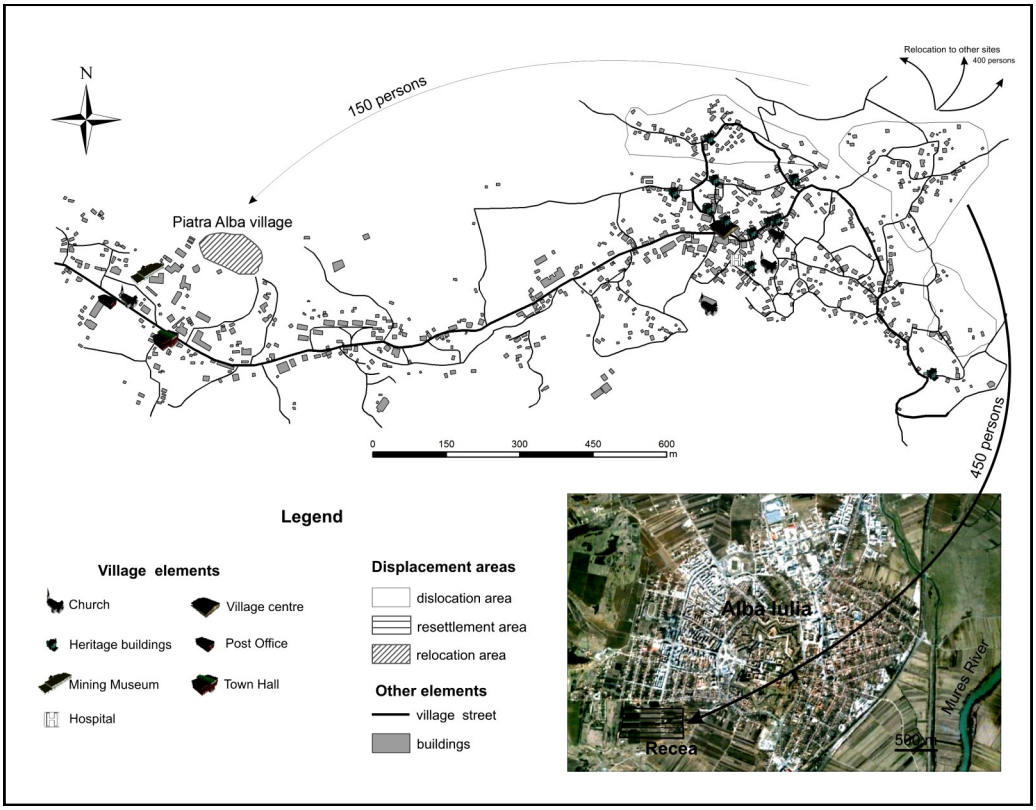

Fig. 2 - **The resettlement sites for the displaced persons from Roşia Montană**

occurring in the new settlement. The experience in development projects and situations of forced migration in general confirms that the strategy of resettling the entire community and to reproduce as much as possible the elements of the original locality in its new location minimize the negative social consequences (Fernandes 2000, p. 224, Hirschon 2000). Therefore, offering both resettlement and relocation as alternatives can be seen as attempts to minimize the social costs of development-induced displacement. It remains to be seen to what extent such policies address the social and economic risks for the specific case of the gold mining project, given the complex socio-economic context at Roşia Montană.

The relocation and resettlement plans were elaborated by the Canadian firm Planning Alliance, an Ontario-based company working in development projects regionally and internationally. Planning Alliance was previously involved in a contested project of relocating approximately 20,000 people in a gold mining project in Tarkwa, Ghana (*Coal International/Mining & Quarry World* 2002, p. 247). From its early stages, the relocation plan sparked numerous criticisms from independent experts and NGOs. The relocation started while the mining project was pending state's approval, the mining company engaging in actions with enormous social, economic and environmental consequences before a legally defined framework for the case was established. It was then revealed that the cultural, architectural and archaeological losses would be highly significant and that relocation procedures largely disregarded these elements (Haiduc 2012, Piso 2012). Later on and in response to such criticism, RMGC redrafted the

relocation and resettlement policies in order to include a management of the cultural and architectural heritage (RMGC 2012).

The proposed relocation and resettlement measures raise the fundamental problem of transparency and informed choice. The World Bank Operational Policies puts an emphasis on the right to be informed, to be consulted on available resettlement options and to be guaranteed "compensation at full replacement cost for losses of assets" (World Bank 2001b, paragraphs 6 and 13). The right to be informed is one of the most important principles in a democratic development and environmental decision-making process (Eckersley 2004, pp. 243-244). From a policy perspective, such a right has to be followed by detailed monitoring systems, the experience in development projects showing that the trade-off between rights and economic efficiency is often tacitly accepted and that the existing accountability mechanisms are many times inefficient (Rew, Fisher and Pandey 2006, p. 54, Hirschon 2000, p. 394).

At Roşia Montană, for more than ten years, the local community was subjected to a well coordinated pro-mining campaign, with reported intimidations and incomplete information regarding the social and environmental risks of the mining project (Simion 2012, Roth 2006, Mining Watch 2006, Egresi 2011). Such elements make a genuine free option based on access to all the relevant information problematic. Although the right to be informed is supplemented with "opportunities to participate in planning, implementing, and monitoring resettlement" (World Bank 2001b, paragraph 13), it is left to the developer to define these opportunities according to the context of the development project. In the absence of clearly defined measures in the national legal systems, this right has a lower impact in those projects not funded by the World Bank. On the other hand, the existing social and economic conditions, mainly unemployment and poverty, also contribute to limiting the actually available options for the local community. Despite such problems, voluntary resettlement remains the default option in the field: "resettlers are not forcibly displaced, but simply invited to settle new lands brought into development" (Cernea 2003, p. 42). RMGC has initially decided to focus on relocation, which is more manageable and politically less sensitive than resettlement.

A critical component in resettlement planning remains the strategy of livelihood restoration (Cernea 1996, 2000, 2003a, Koening 2006, p. 105, De Wet 2006, p. 187). A resettlement project in which people do not experience impoverishment and social disarticulation has better chances of acceptance, both by affected communities and by society in general. As we have seen, the consensus in the field is that compensation alone is not sufficient for alleviating social risks inherent in involuntary resettlement, especially impoverishment (Cernea 2003a). The policy proposals for restoring resettlers' livelihoods range from the requirement to employ resettlers in the project (De Wet 2006, pp. 194-195) to offering the resettlers a "share in the product of the project" (Fernandes 2000, pp. 210).

Employing resettlers in the project is strongly supported by experts in DID. Besides creating a sense of benefiting from the project, this policy is also likely to alleviate impoverishment. For the case of the Roşia Montană, creating jobs for resettlers in the mining project would also lower the pressure to secure land in the region to sustain the resettlers' livelihoods. This can be seen as a form of finding non-land-based livelihoods (NLBL) strategies (Rew, Fisher, Pandey 2006, pp. 61-62). The condition for such policy to be effective is to include it in the initial planning of the development project and then to offer assistance in job trainings for resettlers. This requires a significant investment, which is not yet reflected in the resettlement plan.

RMGC presents displacement as an opportunity for the project-affected population to gain better access to infrastructure, education, health services and as a chance to start new

businesses (RMGC Website 2012b). The livelihood restoration strategy, as formulated in the MSI, is based on a "business re-establishment package" and on a "skill enhancement fund". The first offers either a fixed compensation of 3,000 Euro, or the equivalent of a yearly turnover or "five times gross profits" plus 20% (RMGC 2006, p. 61) for the few businesses existing in the region. The second component offers English language and basic computer skills courses (RMGC 2006a, p. 62).

The land available in the new location is insufficient to meet the needs of the resettlers, being approximately ten times less than what the local population currently own and use at Roşia Montană (Toma 2006, p. 3). The monitoring and auditing mechanisms lack precision and concrete reinforcement mechanisms. A vulnerability of the project is that auditing will be done by "an independent consultant or NGO with experience in RAPP [Resettlement and Relocation Action Plan]" (RMGC 2006a, p. 72), by excluding state institutions from the process, and by making impossible in practice the independent supervision of the resettlement process. In its current form, the relocation plan does not define specific monitoring mechanisms and supervision tasks are not assigned to independent institutions. This and other similar vulnerabilities previously discussed decrease significantly the possibility of effectively implementing the international standards in involuntary resettlement.

In addition to the MSI, RMGC released a second and more complex document, the *Community Sustainable Development Programme* (CSDP), which seeks to address better the social and economic consequences of the mining project in the context of a broader environmental impact assessment framework (RMGC 2006b). CSDP speaks broadly about RMGC's intention to maximize social and economic welfare in the area (RMGC 2006b, p. 79). Concretely, CSDP refers to the creation of 1,200 jobs in the first phase of the project and 560 during the actual mining operations. Certainly, one can doubt that such numbers represent an "outstanding employment opportunity for the Community" (RMGC 2006b, p. 83). Apart from this reference, there are no other concrete measures mentioned in the document regarding job opportunities. In fact, RMGC seems to rely more on the idea that the mining project would generate significant economic growth in the region to provide sufficient job opportunities. The overall economic development of the region is likely to produce new jobs, but only on the condition that long-term alternatives to mining industry are designed and implemented in the region. An independent report shows that the number of new jobs created in the project is overestimated in the current project description (Bran 2003, p. 6). It is therefore important to determine to what extent the anticipated number of new jobs is realistic and if the expected economic growth generated by the project is justified by the available economic data and is sustainable after the mining closure.

Compensation and Project-Affected Persons

A critical dimension in population displacement is setting-up a compensation framework and the identification of the persons affected by the development project. RMGC defines the Project -Affected Persons (PAPs) in terms of physical (i.e. "loss of shelter and assets resulting from the acquisition of land associated with the Project that requires the affected person(s) to move to another location") or economic displacement ("loss of income streams of livelihood resulting from land acquisition or obstructed access to resources caused by the construction or operation of the Project or its facilities") (RMGC 2006a, p. 5). However, despite such an inclusive definition of PAPs, the rest of the document proves that resettlement and relocation policies are centered on commodifying land and other resources, and less on actual livelihood restoration policies.

Compensation does not constitute a special problem in situations of voluntary migration. This solution is largely advocated in legal theory as the "free exchange" principle (Knetsch 1983) and reflected in the practice of the "willing buyer / willing seller". In DID, cases of voluntary displacement tend to be disregarded as special problems and considered the preferable alternative to involuntary resettlement (Cernea 2003a, p. 42). In real situations though, there will always be a minority refusing displacement on which compensated expropriation will be imposed and which will be involuntarily resettled. In such a case, the developer can impose the terms of the agreement on the minority (Knetsch 1983, p. 47).

The compensation measures proposed by RMGC combine and adapt the World Bank Operational Directives 4.30 and the Romanian law on expropriation for public utility works (Law 33/1994). The calculation of compensations in the RMGC relocation and resettlement project combines compensation at the market value and compensation at the replacement value. The mining company offers compensation at full replacement costs for built structures and for perennial crops (fruit trees), but proposes compensation at the market value for land and forests (RMGC 2006a, pp. 35-47). Compensation at market value is highly frequent in relocation programs, but is often criticized for increasing the risk of impoverishment, being suggested to be avoided where possible (Cernea 2003a, p. 40, Kanbur 2003, p. 33). The recommended alternative is "compensation at full replacement costs" (World Bank 2001b, para. 6), which has become the norm especially in those projects funded and assisted by the World Bank and other international development institutions.

It should be noted that the project does not include any compensation for the loss of access to pastures and other publicly owned land, which confirms Cernea's observation that usually the loss of access to public property is neither compensated nor properly restored (Cernea 2000, p. 29). The lots to be acquired by RMGC for resettlement being significantly smaller than the current area of Roşia Montană, it is likely that public land will be scarce and common access resources such as pastures will be inexistent. The compensation of land and forests at the market value can be therefore seen an important drawback in the proposed resettlement project.

Another questionable decision is to exclude from compensation those individuals and families who already sold their properties in the first phase of the project (RMGC 2006a, p. 47). While in itself not a legal requirement, the inclusion of relocatees from the first phase of the project in the new scheme would have been an important reparatory measure, given that information about the project was limited at that time and the value of properties was significantly lower.

Population displacement is considered acceptable if the development project brings significant economic benefits for the entire society and is thus justified in terms of public interest. In the context of development projects, individual rights (such as property rights) can be breached only in very special circumstances and where there is a public interest involved. This has to be demonstrable and the public benefits have to be significantly higher than the losses of the displaced persons and the costs of the project externalized by the company. However, democratic societies tend to avoid, where possible, the dislocation of population for development projects (De Wet 2006).

According to the public-interest perspective, interventions which violate particular individual rights are legitimate if the public interest or the global human interest is at stake. In involuntary resettlement, private property rights of the individuals are in conflict with the public interest of having, for example, cheaper access to natural resources. A situation in which the global human interest is involved can be the intervention of states to limit greenhouse gas emissions,

interventions which interfere with individuals' economic freedoms. In general such interventions are considered morally acceptable if the public interest is evident and considered of utmost importance. In other words, population displacement would be justified "only if the encroachment has the aim of *improving the national wealth* and if it is *proportional* with the losses of the affected individuals" (Fischer and Lengauer 2003, p. 18).

In the RMGC mining project, the estimated revenues are 4 billion USD, the Romanian state's royalties were initially set up to 2%, being later increased to 4%, and the employment opportunities in the project reach 2,000 jobs (RMGC 2012, Gabriel Resources 2012). No comprehensive studies on the indirect economic benefits from the mining project in the region were elaborated to date, but the general opinion holds that it is unlikely that the benefits would exceed the significant social and environmental costs. The proposed revenues and royalties for the Romanian state in the Roşia Montană project were considered "unusual in the international mining industry and reminding of neocolonialist exploitation. […] usually mining licenses stipulate revenues of 15 to 85 parts *in favor* of the state as in the case of oil industry" (Fischer and Lengauer 2003, pp. 18-19).

The justification of the mining project in terms of the public interest is problematic, given that the increase of national wealth is sub-optimal and potentially exceeded by the environmental and social costs of the mining operations in the region. This conclusion is contested by RMGC, their campaign to promote the Roşia Montană gold mining project being centered on demonstrating the numerous public benefits from the project, including employment and a better environmental management in the region. The debates between various expert groups, state agencies and NGOs, on one side, and RMGC on the other hand, were therefore focused on determining how the costs and benefits of the mining project should be determined and on the complexity of such calculations.

Concluding remarks

The relocation and resettlement project for Roşia Montană contains a number of elements consistent with the generally accepted policies in the field, but also significant technical problems and inconsistent policy proposals. Numerous independent experts signaled that the project is based on a superficial understanding of the economic and social context in the region of Roşia Montană (Bran et al. 2003, Toma 2006, Cernea 2003b, Haiduc 2007, Moran 2006, Olaru -Zăinescu 2006). Beyond apparently generous financial compensations, the social problems of the community remain largely unaddressed and the resettlement project offers no policy guarantees that the current social problems would not persist or that a social crisis would not occur in the new community.

In practice, the accepted policies of relocation and resettlement requires the full internalization of resettlement costs in the development project and the formulation of sound post-resettlement plans to achieve livelihood restoration at levels comparable to, or higher than those in the pre-resettlement stage. Full compensation at replacement costs has to be calculated through a flexible case-by-case mechanism (Cernea 2000). The relocation and resettlement processes were initiated by RMGC prior to the state approval of the mining project. This decision endangers the application of the proposed measures which address the social and economic risks of displacement, and especially the feasibility of livelihood restoration strategies.

Overall, the relocation and resettlement model proposed by RMGC for the people of Roşia Montană represents an uneven combination of elements from different, and often incompatible, legal and policy contexts. The project combines policy recommendations on involuntary

resettlement elaborated by the World Bank and focused on livelihood restoration with Romanian regulation of expropriation for projects of public utility, which is framed for compensating land and built structures. The result is an eclectic policy document which sometimes makes recommendations inconsistent with the data of the mining project itself. Furthermore, the inclusion of several measures, such as land replacement or compensation at replacement value, could be compromised by poor planning and weak monitoring mechanisms.

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URBAN SPRAWL PATTERN AND EFFECTIVE FACTORS ON THEM: THE CASE OF URMIA CITY, IRAN

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Abstract: Urban sprawl has become a remarkable characteristic of urban development worldwide in the last decades. Urban sprawl refers to the extent of urbanization, which is a global phenomenon mainly driven by population growth and large scale migration. In developing countries like Iran, urban sprawl is taking its toll on the natural resources at an alarming pace. The purpose of this paper is to study urban growth and effective factors on them in the city of Urmia, Iran. We used quantitive data of the study area from the period between 1989 and 2007, and population censuses of Urmia. To measure the model of urban growth, Holderness and Shannon's entropy were employed. The Urmia case is interesting for several reasons: first, it is a case of very fast urban growth even for a developing country; second, it illustrates how the fastest rates of urban sprawl may correspond to middle size cities rather than to large centers. Third, it portrays a land substitution process in which agricultural land is not the primary provider of urban land which is relatively rare in urban contexts, and fourth, it also illustrates how urban sprawl may also hide important internal land uses such as the presence of agricultural plots within urban boundaries.

Key Words: *planning, urban sprawl, Shannon's entropy, Urmia city, Iran*

Introduction

During the past century, the world's population has been rapidly congregating in urban areas. The urban population in the world was estimated at 2.4 billion in 1995 and a doubling is expected at about the year 2025 (Yu and Ng 2007). According to the United Nations estimates, the population living in urban areas exceeded 50% of the world total in 2006 and will approach 60% in 2020. Most if not virtually, all this growth is taking place in developing countries. While the explosive urban growth in the Global South is a well known phenomenon, the specific trajectories and forms of this growth are still relatively unknown. In most of the world, urban growth appears to have taken the form of disperse or sprawled patterns but case studies are needed to ascertain whether the "American model" of urban sprawl is dominant or, rather, it represents just a version of a much wider process (Zanganeh Shahraki et al. 2011). While the explosive urban growth in the Global South is a well known phenomenon, the specific trajectories and forms of this growth are still relatively unknown. In most parts of the world, urban growth appears to have taken the form of disperse or sprawled patterns, but case studies are needed to ascertain whether the "American model" of urban sprawl (Leichenko and Solecki 2005) is dominant or, rather, it represents just a version of a much wider process.

Urban sprawl is a pattern of land use exhibiting low levels of eight distinct dimensions: density, continuity, concentration, clustering, centrality, vagueness , mixed uses and proximity. Density is the average number of residential units per square mile of developable land in an urban

area. Vagueness is the degree to which developable land has been built in close proximity to the already existing urban fabric. Concentration is the degree to which development is located disproportionately in relatively few square miles of the total urban area rather than spread evenly. Clustering is the degree to which development has been tightly bunched to minimize the amount of land in each mile of developable land occupied by residential or non-residential uses. Centrality is the degree to which residential or non-residential development (or both) is located close to the central business (CBD) of an urban area. Not clear is the extent to which an urban area is characterized by a mononuclear (as opposed to a polynuclear) pattern of development. Mixed uses means the degree to which two different land uses commonly exist within the same small area. Finally, proximity is the degree to which different land uses are close to each other across an urban area (Glaster et al. 2001). Because of these characteristics, urban sprawl is said to represent a threat for urban sustainable development since it implies an increase in the consumption of land, water, energy and other resources as well as of pollutants and waste. The environmental impacts of urban sprawl have raised concerns among planners and have stimulated other models of urban expansion such as "smart growth" (Gabriel, Faria, Moglen 2006, Litman 2007, Turner 2007) which attempt to reverse the low values of the eight dimensions stated above.

After (1961-1971), in Iran, having an increased cities' population, because of both high natural growth and large scale immigration of villagers to cities, the growth of urban form and construction did not happen based on needs but on land mongering. This led to an unorganized urban land market, especially within urban limits and the negative distribution of cities' sprawl and horizontal expansion (Athari 2000). Following the pattern of other large Iranian cities in recent years, Urmia City has had rapid and unorganized growth. This city has witnessed many population and form changes because of the population's natural growth, immigration, the spread of services, the allocation of official-political identity to this city as a province capital, the land grant by different governmental organizations within this city, the state's construction plans, state's socioeconomic and political changes and or ultimately the appropriate natural environment. This city's population has increased from 67,605 in 1956 to 583,255 in 2006. Also, in accordance with the calculations of consultant engineers, in a twenty-year interval (1986-2006), the urban area has increased from 5939 to 8577 hectares in this city. This in turn has added 95% to the initial urban area during this period (West Azerbaijan's Organization for Housing and Urban Planning, 2008).

Furthermore, these factors have resulted in the lack of land and housing, the split of urban texture, the disorganization of urban visage, the crowdedness of urban transportation (the congestion of urban traffic, especially in the city center), the conversion of appropriate agricultural lands into residential and industrial spaces, thoughtless urban constructions and the exhaustion of natural capabilities and services, the endangered urban environment which contributed to the city instability. In such conditions, it is important to improve the consequences of thoughtless urban sprawl. However, few solutions have been suggested to mitigate the consequences of this phenomenon, i.e. population growth. Strategies such as smart growth, smart management, green belts and land use planning have been proposed and implemented in other locations as possible solutions for reducing the negative impact of the urban sprawl.

Background and Literature Review

Urban sprawl is one of the main challenges in spatial planning in the 21st century. Urban sprawl is defined as a specific form of urban development with low-density, dispersed, auto-dependent and environmentally and socially impacting characteristics (Hasse and Lathrop 2003). A whole

range of consequences and negative implications related with this type of urban development are brought forward in literature. These include increased traffic and demand for mobility (Ewing et al. 2002, Cameron et al. 2004, Kahn 2000), land use fragmentation and loss of biodiversity (Alberti 2005), reduced landscape attractively (Sullivan and Lovell 2006) and alterations of the hydrological cycle and flooding regimes (Bronstert et al. 2002, Carlson 2004, McCuen 2003).

The urban sprawl phenomenon has been studied intensively by North American researchers (e.g. Downs 1999, Ewing et al. 2002, Hasse and Lathrop 2003, Lopez and Hynes 2003). According to Jaeger, Bertiller, Schwick, and Kienast (in press) urban sprawl denotes the extent to which an area is built-up and the extent of its dispersion in the landscape. The more the area is occupied by buildings and the more the buildings are dispersed, the higher the degree of urban sprawl is (Sabet Sarvestani and et al. 2011). Since World-War II urban sprawl has been an important feature of the urbanization process in certain developed countries such as the USA, Australia, Canada, and some European countries (Gill 2008). Currently, urban sprawl is expanding to Southern Europe (Catalán, Saurí, Serra 2008), and also to a number of developing countries such as China (Cheng, Masser 2003, Zhang 2000), India (Jothimani 1997, Lata, Sankar Rao, Krishna Prasad, Badrinath, Raghavaswamy 2001), and Turkey (Onur, Maktav, Sari, Sonmez 2009), among others.

Studies on urban sprawl have focused mainly on large cities and metropolitan areas. However, middle sized and small urban areas may be actually those experiencing the highest rates of urban growth. For instance, Weng (2001), in a paper on the Zhujiang Delta in China, concluded that the largest urban expansion in this area occurred in Dongguan, Baoan, Nanhui and Zhuhai, all of them relatively small cities located in the Eastern part of the delta. In contrast, older and larger cities, such as Guangzhou and Foshan, did not show a parallel increase in urban land. Jat, Garg, and Khare (2008) revealed that the growth in terms of urban land of Ajmer City, a medium sized city situated in Rajasthan State of India, over a period of 25 years, had tripled its population growth with an increase of the urban area from 488 ha in 1997 to 1259 ha in 2002 (Jat et al. 2008). Also in India, Sudhira, Ramachandra, and Jagadish (2004), for a city with less than 0.5 million people, reported a population increase of 54% between 1972 and 1999, and an increase of urban area of 146% during the same period, that is, nearly three times the rate of population growth. The urban land sprawl in intermediate and small size cities continues in the developed world as in Santa Barbara, California (Herold, Goldstein, Clarke 2003), or in several Swiss municipalities (Gennaio, Hersperger, Burgi 2009), among many other examples.

While urban sprawl may be a process equally shared by developed and developing countries, specific causes and characteristics differ considerably. In the developed world, for instance, causes for urban sprawl vary from consumer preferences to new strategies of capital accumulation in cities through real estate development (Muñiz, Calatayud, García 2007). However, the study of the causes behind urban sprawl remains less explored in the developing world. More examples of how this process unfolds in specific areas are needed to explore trends, causes and consequences that enrich our understanding of the urbanization process in areas where this process is more intense.

Methodology

This study is an applied one and the methods of investigation are both descriptive and analytical. To identify the model of urban growth, quantitative models of urban planning were employed (Holderness, Shannon's entropy). Required data was collected through library

research, field operation, master plans and different organizations. The data was analyzed by Excel and Arcview.

Study area

The city of Urmia, one of the most ancient cities in Iran, is the capital of the western Azarbaijan province. Urmia is located in a mountain area with annual precipitations of 42 to 78 mm. The most important economic activities in Urmia are light industries (textiles, foodstuffs, paper and furniture) occupying about 45% of the active population, and tourism which benefits from the desert architecture and the historical heritage of the city. Both activities alongside with the administrative functions derived from the condition of province capital, serve as an attraction factor for many immigrants not only from the province of western Azarbaijan, but also from all Iran. Therefore, the city has experienced very rapid growth to the point that, among the Iranian cities with a population bigger than 100,000 inhabitants, Urmia had the largest growth in urban land development.

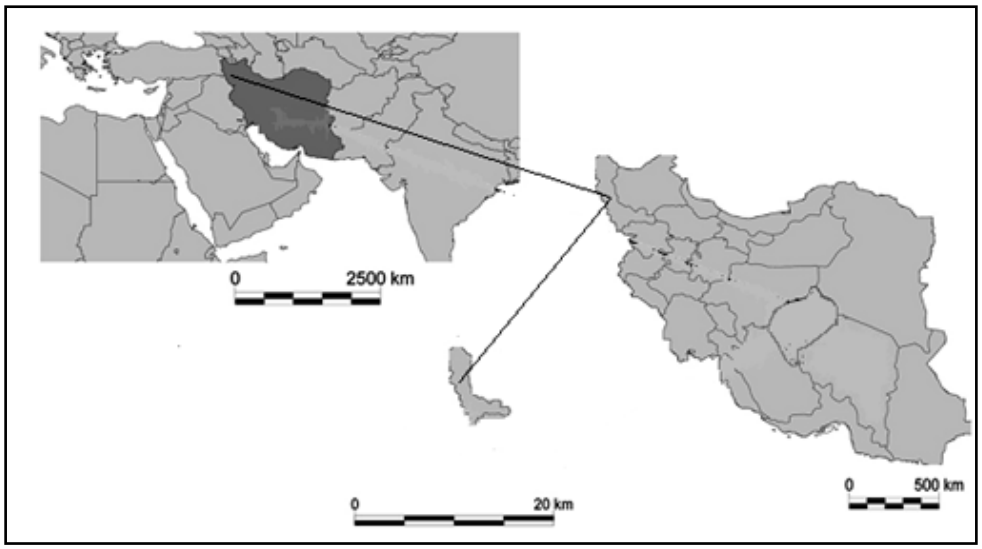

Fig.1 - **Location of study area**

Urban planning in Iran and Urmia

For more than two decades (from 1976 to 2002) the urban population of Iran has seen the greatest growth and thus urban population has grown up to four times as much as the rural population. In these years, the annual growth rate of the of the urban population has been 4.3% and the rate of annual growth of the rural population has been 1.3%. the characteristics of the Iranian urban system can been numerated as follows (Fanni 2006):

1. high concentration of economic and commercial investment in several big cities, especially in Tehran, and the lack of control over it. The process of urbanization in the country has been accompanied by an overconcentration of tied productive activities and economic forces in big cities, a situation which leads to a big gap between different cities, especially in the economic fields;

2. high concentration of social, cultural, educational and welfare facilities in the above mentioned cities, which is mainly resulting from the lack of equal distribution of the capital and equipment in the totality of regions and cities.
3. Physical and spatial expansion of big cities and their irregular growth; in spite of the recent reforms (such as renovation plans), in the old cities or some of the sections of ancient cities, cities often have had not proper physical form yet and in the regional level they had not harmonious distribution spatially. This is affected by two factors: the first is the climatic and natural situation; the second is the national policy and planning.
4. Processes of urbanization lead to urban primacy, regional inequalities, centralization of political and economic power within cities and intra-urban ecological segregation and environmental crisis; this process has intensified because there is no accord on the necessary principles of urban sustainability within development (Drakakis-Smith 1995).

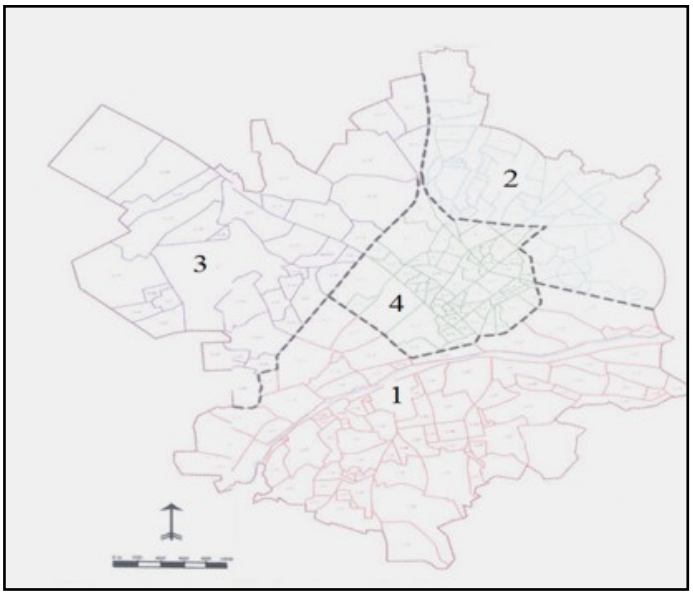

Fig. 2 - **Urmia city zones**

It is important to confront our data on urban growth with the realities of urban planning in Iran and in Urmia in particular. The Application of the Models to Determine the Type of urban form urban planning system of Iran is based on master or comprehensive plans. These plans are mandated by the Ministry of Housing and Urban Planning and constitute the most important instrument of the Iranian multilevel system of land-use planning. In these Master plans, maps of projected land uses are provided laying down binding provisions on how land can be used in practice. In addition, plans set urban growth and development patterns for the future based on population growth rates and on land per capita land. In this case, plans establish the boundaries between developed and non-developed zones. All types of construction are prohibited in non-development areas. However, these boundaries and limits are seldom respected and almost all Iranian cities expand beyond the determined boundaries of master plans (Zangane Shahraki et al. 2011). The first master plan of Urmia was enacted in 1972. Estimating the population growth rate of 2.5% and the population density of 100 persons per ha, this plan calculated that the city would occupy some 1760 ha of land in 1992. (Municipality

of Urmia 2005). Comparing this number with the predicted area in the Master plan revealed a vast process of urban sprawl in this period. The second master plan of the city was issued in 1989. Acknowledging a large quantity of unused and vacant spaces inside the city, this plan sugessted not to expand and develop the city in the fringes but to follow the so-called infill development approach. Nevertheless, the boundaries envisaged in the master plan were contravened again in the following years. In the latest master plan of Urmia enacted in 2007 the predicted urban area of city for 2020 was set at 13,415 ha. In sum, the established projections of all master plans have been defeated by the dynamics of urban growth fuelled by the high number of immigrants in need of inexpensive habitation. One major problem with Iranian master plans (which is common to many other planning figures in both developed and developing worlds), is the lack of enforcement of growth control measures. Because of this lack of enforcement, newcomers usually construct and settle everywhere they want and can afford.

Results and Discussions

Population growth and urban sprawl in Urmia

According to the first official census (1956) the population of Urmia was 67,605. During the 1960s and early 1970s, the land reform and other agricultural policies in Iran resulted in mass migration from villages to cities. Hence, at the time of the second official census (1981), the population of the city reached 164419 people. The Islamic revolution of 1979 followed by the Iran-Iraq war one year later increased further rural migration to cities. Between 1975 and 1987, the annual rate of population growth in Urmia was 5.1%. In 2000, the population reached 435200 people with an annual growth rate of 3.4%. In the most recent official report (2010), the population of Urmia attained 604000 persons (Urmia Municipality 2010).

Table 1

Population, area and their increase percentage in study area.

Year	Population	Population increase percentage (%)	Built-up area (ha)	Built-up area increase percentage (%)
1981	164419	-	1643.94	-
1991	300746	54.67	2935.37	56.00452
2000	435200	69.10	3761.54	78.03639
2010	604000	72.05	5943.12	63.29234

Source: Iranian Statistic Center (2010), Urmia Municipality (2010).

As shown in Fig. 3 and Table 1, the rate of population change is high although smaller than the increase in urban land. Employment in industrial sector is mentioned as the major reason for migrating to Urmia. As it is often the case, the lack of urban planning forced immigrants to settle in the periphery of the city where land and accommodation prices were much lower than in the city center. The economic factor or the differential land rents thus appears as a major driver of urban sprawl in Urmia. Finally, in the last studied period, Urmia presented the largest growth in built-up area. The expansion of urban land between 2000 and 2010 almost equals all urban land developed during Urmia 2000 year history. In 2009, urban uses occupied 5943.12 ha of land, and the population density had decreased to 32.78 persons per hectare. This form of development shows a disordered pattern that, among other impacts, reduced spatial solidarities. Since 1981, and in addition to rapid expansion, urban growth has remained disproportional, scattered and leapfrogged.

An evaluation urban sprawl by use of quantities models. Holderness Model

One of the principal methods for determining urban sprawl growth is the use of Holderness Method. In 1991, John Holderness applied a method for determining urban sprawl growth and population growth. Using this method, it could be specified what is the extent of urban growth in the result of population growth and what extent in the result of urban unorganized growth. He employed land gross per capita formula (Hekmatnia and Mousavi 2006).

$$Ln\left(\frac{\text{population at the end of period}}{\text{population at the beginning of period}}\right)+\text{Ln}\left(\frac{\text{land gross per capita at the end of period}}{\text{land gross per capita at the beginning of period}}\right)=Ln\left(\frac{\text{urban area at the end of period}}{\text{urban area at the beginnig of period}}\right)$$

$$Ln\left(\frac{577307}{344521}\right)+\text{Ln}\left(\frac{47.59}{33.73}\right)=Ln\left(\frac{8577}{6183}\right)$$

Ln(1.9756) + Ln(1.4109) = Ln (1.3871)
0.5162 + 0.3442 = 0.3272

$$\frac{0.3442}{0.8604}+\frac{0.5162}{0.8604}=\frac{0.8604}{0.8604}$$

0.59 + 0.41 = 1

Therefore, the physical growth in the Urmia City since 1989 till 2007 is 59% as a result of population growth and 41% as a result of urban growth which is related to urban sprawl and horizontal growth, which results in decreasing population's gross density and increasing urban land gross per capita.

Shannon's entropy Model

This model is used for analyzing and determining the extent of urban sprawl growth phenomenon. The general structure of this model is as follow:

$$H= -\sum^{n}_{i=1} Pi\times Ln(Pi)$$

Where, H is the value of Shannon's entropy, Pi the ratio of constructed zones area (total housing density) to the total sum of zones area and n the total sum of zones.

The value of the Shannon's Entropy is between 0 and Ln(n). 0 means very compact (dense) urban physical development whereas Ln(n) shows urban sprawl physical growth. When the value of the entropy is more than Ln(n), urban sprawl growth takes place. Tables 2 and 3 indicate that the value of entropy is 1.3738 in 1989 while the maximum value is Ln (4) = 1.3862. The closeness of entropy value to the maximum value suggests urban sprawl physical development. The entropy value is 1.3231 in 2007, indicating that over 20 years, physical growth has been in sprawl and incompact form.

Table 2

Calculating Shannon's Entropy for 1989 in Urmia City

Zones	Constructed area (Hectare)	Pi	Ln(Pi)	Pi×Ln(Pi)
1	745.16	0.2303	- 1.4683	- 0.3381
2	634.12	0.1959	- 1.6301	- 0.3193
3	921.36	0.2847	- 1.2536	- 0.3576
4	934.73	0.2889	- 1.2416	- 0.3587
Total	3235.37	1	- 5.5964	- 1.3738

H = 1.3738

Table 3

Calculating Shannon's Entropy for 2007 in Urmia City

Zones	**Constructed area (Hectare)**	**Pi**	**Ln(Pi)**	**Pi×Ln(Pi)**
1	2110.87	0.3701	- 0.9939	- 0.3678
2	940.88	0.1649	- 1.8019	- 0.2972
3	1714.45	0.3006	- 1.2019	- 0.3613
4	936.95	0.1642	- 1.8061	- 0.2967
Total	5703.15	1	- 5.8039	- 1.3231

H = 1.3231

Effective factors in sprawl growth of Urmia city

From the height point of view, the Urmia City is a short-figure city and from the perspective of urban physical loadings intensity is an open city whose main part composes of regions with a dominant aspect of one - or two-floor buildings and land units with large and average sizes. Three- and four-floor buildings are gradually accepted as usual form of construction in this city. According to the available information, of all construction permits that were issued for this city in 2006, about 55.4% were for one to two-floor buildings, 38.7% for three or four-floor buildings and only 5.9% for five and more-floor buildings (Consultant engineers of project and logistics, 2007).

From the effective factors on the Urmia City's development, these following cases could be shown:

1) Developments in the result of immigration (immigration residence). (In this case, one could refer to the role of villages around cities in the reception of villages' immigrant);
2) Developments that are the result of city population growth ;
3) After Islamic Revolution of Iran (1979), the lack of obvious policy in the gardens within the limits of the city was one of the obstacles that forced the city to occupy the perimeter around and to develop in its marginal regions;
4) Not being able to transfer some of land uses to the outer parts of the city and to construct some of urban facilities outside the urban boundaries are some of factors that encouraged the city to extend and breached urban boundaries;
5) Activities performed legally by some offices and organizations for possessing and separating lands. Of these activities, one may name urban land offices and housing cooperatives which often meddle in urban affairs and get construction permits for the lands which have ownership issues within urban limits and authorities about this problem;

6) Available economic, natural and legal issues/factor within urban boundaries contribute to land shortage and urban development beyond the boundaries of urban master plan;
7) The failure to change residence patterns and to grow the culture of apartment living have contributed to the occupation of spaces in a level beyond the prediction of urban master plan. Generally speaking, the city's social and economic disorganizations have led to disorganization in the city's physical development and the termination of natural and the ending process of development. Also, it is necessary to note that the specification of boundary for the-lack-of-control conditions in using urban lands have contributed to land prices increase and this was one of the main factors in developing the city beyond the boundary that is either planned by the Organization for Urban land or unplanned (in the form of immigrant habitation) (Hampanejad 2009);
8) Of the other important factors in the irregular expansion of Urmia City, one may refer to urban wandering assets which have illogically and irrationally led to land speculation and to the activities related to land trade. Besides the increase in land prices which have contributed to the emergence of new generation in the society, constructive activities which have mostly luxurious aspects, have expanded in the city; and
9) Ultimately, not paying attention to the city limits which itself is influenced by beyond-city systems, has entailed widespread margin living, the increase in housings without urban facilities, the sprawl growth of the city, towns and suburbs without urban qualities.

Table 4

Effective factors on the sprawl growth of Urmia City by each factor

Social- cultural	People's inclinations and attitudes - social segregation
Economic	Land prices-industries and workshops
Natural Geography	Agricultural lands and gardens-under-surface waters - around-city mountains and steep slopes
Political	Town building projects - the submission of lands to people - the specification of city limits
Physical-spatial	Communication networks and roads among cities - bypasses and sideways

Source: Davoodpour and Ardalan 2008

Conclusions

Urban sprawl has increasingly become a major issue in the global trend towards urbanization. Faced not only by developed countries but also by developing countries, and by large urban centers and medium and small cities alike, urban sprawl raises social and environmental concerns at the same time that shows a multiplicity of divergent trajectories that somehow defy the dominance of homogeneous characteristics around the world. This study examined the urban sprawl of Urmia, one of the most important historical, cultural, industrial, and commercial cities in north Iran, Urmia city. In recent years, the Urmia City has had the rapid growth of population and urban area, because of so appropriate natural prerequisites (so desirable lands for agriculture and many water resources), of the development of roads and the construction of housings beside them, immigration (which led to the approach of lands around the city to the city itself (these parts joined to the city boundary), of cooperatives for town building, development and construction of disorganized settlements and urban margin living), and of the ownership issues.

As in many cities in the developing countries, sprawl in Urmia appears as an unplanned and disordered pattern which has emerged after the location of existing highways, villages and

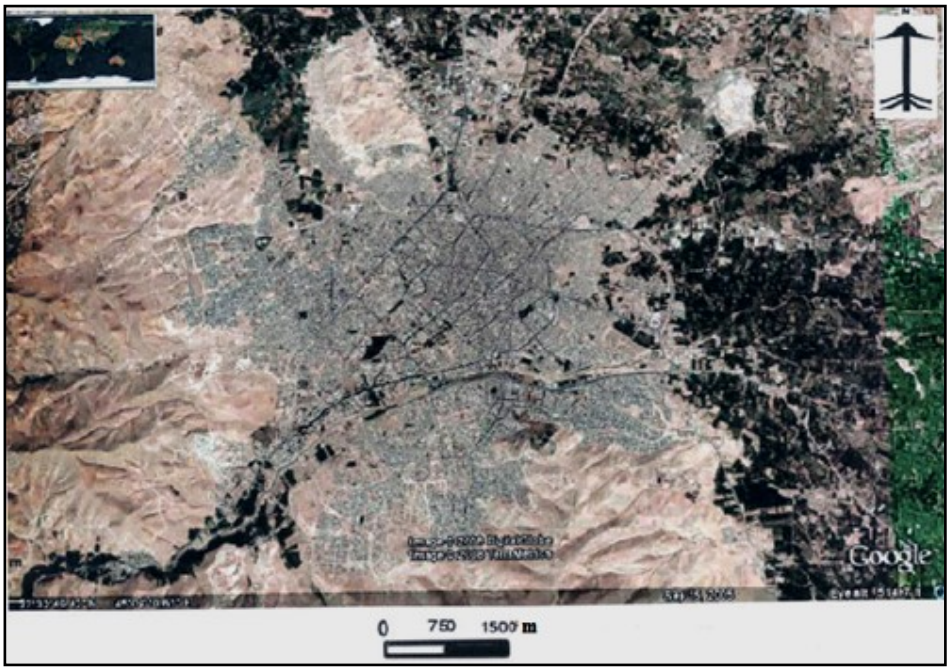

Fig.3 - **Urban growth and spawl in Urmia**

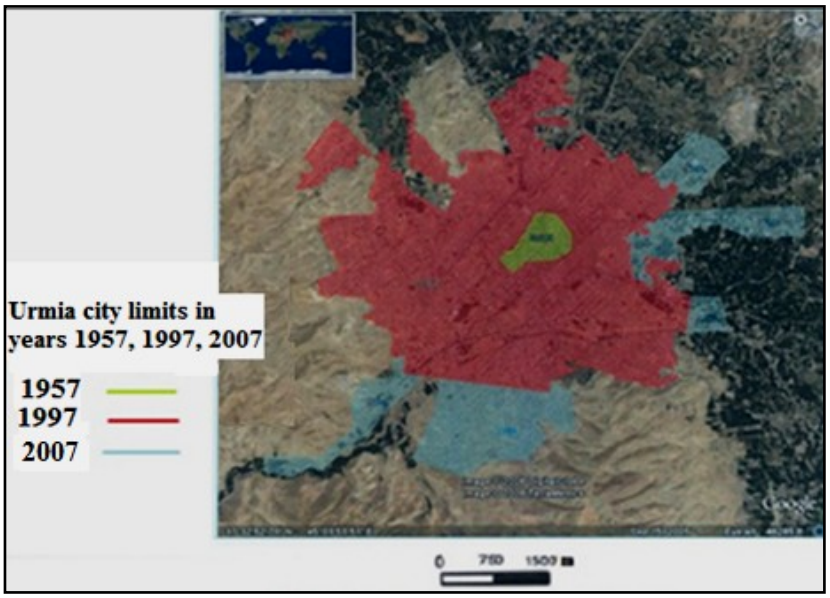

Fig. 4 - **Urmia city limits in 1957, 1997 and 2007**

towns and has been created by the realities of differential land rents, industrial location, and communication networks. Also, such rapid and unplanned growth has created important problems such as lack of enough services and facilities for the residents, insecurity, increase of commuting length, and of energy consumption, and local climate change, among other matters. Finally, sprawl leaves behind numerous interstices that may be used for other functions such as agricultural land or for infilling policies, although the former appears more important than the latter. By applying quantities models, some conclusions were drawn: 1) findings resulted from Holderness Model indicate that only 59% of urban growth has been in the result of urban growth and 41% of urban growth is related to urban sprawl and horizontal growth which contribute to the gross density of population and the increase in urban gross land per capita; 2) the value of Shannon's Entropy is 1.3738 for 1989 whereas the maximum value is Ln(4) = 1.3862. The closeness of the entropy value to the maximum value shows the sprawl growth of urban physical development. The Shannon's Entropy is 1.3231 for 2007, suggesting that during twenty years, physical growth has been in a sprawl and incompact manner.

According to the findings of this study, uncontrolled urban sprawl in Urmia has caused many changes in the land use of the peripheral areas. The causes of having such widespread urban sprawl should be studied in order to develop strategies for controlling the city's growth. Some of the strategies and policies that can be used for controlling the urban sprawl are: creating a regional balance to reduce migration from rural areas to urban areas or the renewal and improvement of the central-historical fabric and of the inner city of Urmia. This would cause the continuous settlement of population in these areas for living and would prevent migration from center to the suburbs. Also, the policy of infilling development can be used to provide for the future growth of the population, and for implementing strategies addressed to manage the construction in the undeveloped peripheries.

The necessity of its change and the enjoyment of strategies for more compactness of the city should be considered with respect to the direction of urban development towards more sustainability and regarding that this study's findings on urban sprawl growth have had many consequences in different economic, social and biological divisions including the exhaustion of agricultural lands around the city, the devastation and contamination of water and soil resources, the increase in the cost of delivering civic services, the increase in the time and length of inner city trips. As a result, the consumption of fossil fuels like petroleum increased, social segregation appeared, there is a lack of care about land use or irregular use of this important resource.

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BOOK REVIEWS

Urban Spaces after Socialism
Etnographies of Public Places in Eurasian Cities

Tsypylma Darieva, Wolfgang Kaschuba, Melanie Krebs (eds),
Ed. Campus Verlag, Frankfurt/New York, 2011, 328 p.
ISBN 978-3-593-39384-1

Reviewed by RADU DANIEL PINTILII, University of Bucharest, Romania

The year 1989 brings many profond transformations in all the social, economic and especially politicaly fields. So now, we are witnessing an increased importance given to research on this subject, and its approach in many various studies. Each of them tries to provide information in terms of accuracy and precision.

The book entitled *Urban Spaces after Socialism. Etnographies of Public Places in Eurasian Cities,* published in 2011, represents a collection of papers, resulted after a workshop organized in September 2009 at Javakhishvili Tbilisi State University (Georgia). This workshop had been entitled "Urban Spaces – Caucasian Places. Transformations in Capital Cities". After that, in February 2010, at the Department for European Ethnology (Humboldt University Berlin) discussions took place in a one day workshop. These two events had been organized by the project team and were entitled "Identity Politics in the South Caucasus: National Representation, Postsocialist Society and Urban Public Space".

The book structure begins with an Introduction on the Sights and Signs of Postsocialist Urbanism in Eurasia, realized by the two of the three editors, Tsypylma Darieva and Wolfgang Kaschuba, then the collection of the articles is divided into two parts.

The first part, entitled **Contours and Places** conteins six scientific papers extended on over 147 pages. In the first paper, *Gradeur and Decay of the "Soviet Byzantium"*: *Spaces, Peoples and Memories of Tashkent, Uzbekistan*, the author explores the urban phenomenon of Tashkentului, by the memories and narations of the resident inhabitants. Even from the first pages, the autor wants to familiarize the reader with the place, culture or community of the analyzed area.

For the second paper, *The Seond City as the First City: The Development of Gyumri from an Anthropological Perspective,* the author Gayane Shagoyan deals with certain aspects of city development in Leninankan (today called Gyumri), the second largest city of the Soviet Armenia, which has borrowed many principles of the Leningrad city, a city guide for the development of communist countries. The author wonders why the city of Gyumri has not borrowed the above mentioned various aspects of development in Yerevan, a city with real possibilities as a true competitor for the first one.

Tbilisi in City Maps: Symbolic Construction of an Urban Landscape, by Madlen Pilz, is a paper that evoques the importance of maps in drowing the urban landscape in Georgia. As a weak point, the author mentions, from the begining, that the tourist city maps of Tbilisi, realized between 1980 and 2008, offer some empirical data for the analysis of a social order construction.

In *Maiden Tower Goes International? Representing Baku in a Gloal World,* Melanie Krebs shows that "apart from the economic and social hard ships, this lack of international

acknowledgement became another problem for a political class that wanted to present both to the outside world and to their own citizens a strong nation deeply rooted in history and ready to take on the challenges to the future." This article is about a case study that investigates the fact that oficially policy-makers try to built a brand for Baku, the Capital City of Azerbaijan.

Yerevan Sacra: Old and New Sacred Centers in the Urban Space, Levon Abrahamian analizes the urbanization process in Yerevan. Among other aspects, the author evoques the very fast process of city urbanization, so that the city seemed to fail in forming its specific traditions and urban spaces, including the historical ones. In this article the author also focuses on other aspects of the religious urban spaces and on the controversy between religious and mundane urban spaces, when the sacre tries to gain and even to take a revenge here.

The last paper of the second part by Tsypylma Darieva, entitled *A "Remarkable Gift" in a Postcolonial City: The Past and Present of the Baku Promenade,* presents an evolution in time of Baku city and shows the multitude of changes it has suffered, from a postcolonial city to an industrial one.

The second part of the book, entitled **Places and Voices**, contains the same number of papers and it is more empirically than the previous one. The studies here are more descriptive, more narative than in the first part of the book.

The article entitled *Every City Has the Flea Market it Deserves: The Phenomenon of Urban Flea Markets in Sankt Petersburg,* by Oleg Pachenkov, starts with an empiricaly study about Sankt Petersburg, about the flea market, showing its transformations within the last 20 years.

The following article, *Why are the Dolls Laughing? Tbilisi between Intelligentsia Culture and Socialist Labor*, by Zaza Shatirishvili and Paul Manning realize an interdisciplinary approach, the analysis on two of the socialist historical elements of Tbilisi culture, relected by the dolls image.

Between the Center of Jazz and the Capital of Muslim Culture: Insights of Baku's Public and Everyday Life, a paper by Sergey Rumyansev and Sevil Huseynova offers some perspectives, for relations dynamics between the authorities and some groups of city-dwellers, for their case study, the city of Baku.

Another article *Gay Culture and Public Places in Tbilisi,* author Shorena Gabunia argues that the homosexuality is not a new or a strange social phenomenon for the culture of Tbilisi. The subject was also studied in a research project leaded by the author in 2009, and had as targets group some people representing such minority groups. In this article, the author wants to show which public spaces are empowered by this community and how the individual consumption affects the building of an identity.

Paul Manning and Zaza Shatirishvili in their paper entitled *The Exoticism and Eroticism of the City: The "kinto" and his City* begin with a motto and use a mixture of ethnographic, semiotic, historical and literary methodologies in order to describe the atmosphere in the Tbilisi town during the 19th century.

"Nested Globalization" in Osh Kyrgyzstan: Urban Youth Culture in a "Southern" City by Stefan B. Kirmse shows that cultural globalization and urbanism play a subordinate role in discussions of the former Soviet South. This article also discusses young people's experiences of cultural globalization in Osh, Kyrgyzstan. This article offers, among other aspects, an useful perspective for exploring the process and shows the cultural globalization effects in the region.

This book ends with an Afterword for Urban (post)Socialism realized by Alaina Lemon, with some Notes on Contributors and with an Index of Names and Places.

Urbanization: An Introduction to Urban Geography, Third Edition

Paul L. Knox, Virginia Tech, Linda M. McCarthy, University of Wisconsin-Milwaukee, Prentice Hall, 2012, 480 p.
ISBN-10: 0321736435, ISBN-13: 9780321736437

Reviewed by Mirela PARASCHIV, University of Bucharest, Romania

Urbanization is a continuous challenge for the geographical research due to the complexity of the process that is always changing and has new forms and methods of manifestation. The book *"Urbanization: An Introduction to Urban Geography, Third Edition"* captures precisely these urbanization features, from the perspective of its effects on population in various development stages. The analysis of the current urbanization patterns is made with an approach to the specific development directions of urban geography. Thus, general theories or those related to the urban space issues are correlated with the evolution of cities, going through case studies and geographical analysis of recent situation conditioned by the urbanization process.

The book has a strong theoretic and synthetic footprint of the urban geographical researches, following a historical perspective of the urbanization process. The urban space is investigated through the United States of America urban system, but the analysis direction is global and includes detailed perspectives from the less developed countries.

The five parts of the volume, distributed in 15 chapters, start with a general statement of the theme and follow with a detailed critical analysis of the urbanization phenomena. Thus, the first part makes a short summary of the research approaches and methods of urban geographical issues, highlighting a number of related concepts and also, general effects of the urbanization. The urban geography objective is established to identify the spatial patterns of urban land use and of spatial models generated through demographic and socio-economic differences in the population. Space, territoriality, distance and place are the notions considered to be the foundation concepts of urban geography through the relation and the direct influence they have over the population. The geographical approaches, such as the spatial descriptive analysis, the behavioural, humanistic, feminist one and the post-structural ones are explained for their complementarities in the description of the urbanizing process. The comment of the different research approaches in the urban geography is followed in the next chapters of the book by some classical concrete examples. The urbanization results are analysed as comprising the economic, demographic, political, cultural, technological, social and environmental changes observed in the character and the dynamics of the urban system, the social ecology and the urbanism, seen as the whole of the social interaction forms and the ways of living developed in the urban environment.

The second part represents a historical investigation of the urban spaces evolution, from the appearance of the first towns to the new forms of hyper-urbanization. Starting with a brief mention of the factors that gave rise to the development of human settlements as cities, the emergence regions are analyzed and the global urban expansion directions, until the industrial revolution stage which was the moment of decisive transformation in the urbanization patterns. The chapter concerning the detailed analysis of the United States of America urban system is supported by the examination of the evolutionary American urban geography theories, which have become classics and a reference point in the trial to explain the forms of urbanization. The urbanization process is seen also in the

context of North American cities transition to widespread phenomena of metropolis development and suburbanization. The globalization phenomenon is supported by completing the chapter with case studies concerning the Canadian, European, Australian and Japanese urban systems.

The peculiarities in the urbanization process of the less developed countries are captured in the third part of the book. The analysis of the urban spaces in the Latin America, Africa and Asia is done by a continue reporting to the developed regions. Also, the colonial forms of the urbanization in the under-developed countries are explained on the economic development theories basis. The analysis of the urban spaces from the major empires to the actual megacities as a result of the hyper-urbanization is then detailed through the identification of the land use and urban space patterns in the Latin-American, African, Islamic, southern, south-eastern and east-Asiatic cities.

The urban geography of the less developed countries brings into discussion the main issues in these areas. The urban poverty is the central phenomenon of the socio-spatial relationships linked to the urbanization in the under-developed countries. The poverty causes are the non-functional economies, with predominance of the informal sector of activity, housing and poor urban services, but also the environmental degradation. The authors 'investigated solutions to tackle the urbanization issues from the less developed countries are integrated in the larger context of the aspirations concerning sustainable urban development. Thus, some changes are suggested, changes that that would result from the implementation of some actions that address the economic, environmental, demographical and political aspects of the under-developed urban spaces. In the same time, a paradox of the globalization is high-lighted, namely, one that has negative impacts in the cities from the less developed regions on the basis of the international competition in the economic global system. The interesting issue of the globalization influence over the urbanization in these areas is focused in this chapter only on the response of the urban governance through the observed directions in the politics conducted by the local decisional factors. There is a lack of critical detail necessary for the current implications of the globalization process on urban systems in the underdeveloped states.

The forth part of the paper includes a theoretical detail on the role of the main population groups as decisional factors in directing the urbanization process. In this context, the socio-spatial relationships are analysed, especially those from the real-estate market, with a special regard over the economic aspects, and then correlated with changing lifestyles, social policies and gentrification and residential segregation phenomena. The extensive theoretical comments that follow the capture of some patterns of the population-urban space relationship have the fundament on statistical information. Also, the bidirectional relationships between the urbanization and the changes in governance and urban development policies are tracked. The analysis of these relationships is realised especially through the explanation of the historical stages of change in the urban governance, behind various influences (economic, social, cultural and technological).

The last part of the book captures the role of the urban policies and territorial planning as a result and generating factor of the urbanization dynamics. Like in most of the volume chapters, the theme analysis starts from an evolutionary historical context treatment, from investigating the main models and objectives followed in sustaining the policies and different urban planning strategies in the United States of America. In the same geographical context, there are followed especially the residential patterns and the implied phenomena as a result of the economic and social changes. In this way, the residential segregation is approached through the territoriality concept which explains some groups' tendency, customized by social status, ethnicity, type of housing or lifestyle, to establish forms of

power and domination in certain areas of the cities. The main factor of the spatial urban segregation is considered to be the socio-economic polarization and the preferential promotion of certain lifestyles. The different ways and stages of urban planning are highlighted also through architectural characteristics of the urban landscapes as an answer to the dynamics of the social, cultural and economic changes. In the same time, there are some arguments brought in favor of a socio-spatial dialectic where the people modify and create the urban spaces in function of their needs, but they are partially conditioned in their actions by the spaces where they live. The prominence of this relationships' theory between the city and the social and individual population behaviour is realised through detailing of the postmodern concerns in the field of urban geography, concerns related to gender and perception of the deviant behaviours.

The last chapter of the volume is dedicated to the analysis of some extreme issues generated by the different models of urbanization. Following a progressive high-lighting of the social difficulties in the North-American industrial cities to the neoliberal ones, the poverty, the criminality, the homeless phenomenon, the environmental and the infrastructure issues are discussed both theoretical (by evidencing some territorial manifestation patterns) and through statistical information from American and European urban regions.

Since the targets are the students and the young researchers in geography, the general structure of the book follows a teaching logic, extremely interesting also for the experimented professors. Thus, each chapter starts with mentioning the goals for the analysis, with highlighting the concrete skills that the readers will achieve and a resume of the developed general ideas. All the chapters continue with the historical-geographic context that explains the current issues of the urbanization. There are also inserted in the text some brief essays on short tapes with additional topics to the main subject, but also photos, maps, tables and relevant graphics that try to complete the general study. But all the used graphical materials are cited in the text as general comments, linked through the topics by the information that details a map, a table or a scheme. The concrete information that they transmit are not discussed and the interpretation is left to the reader's attention. This would be necessary, especially in the books' logics, that the information transmitted by the graphical materials to be interpreted in detail by the authors in order to deepen the analysis and to avoid any uninformed interpretation. Each chapter ends with an inventory of the new concepts presented in the paper and with recommendations for concrete activities that would increase the knowledge and the overall vision. In the same teaching logics, the book concludes with a group of footnotes and references for each chapter, but also with a glossary of the most important notions used in the volume, selected as relevant for the urbanization geographical research.

This third edition of the study regarding the urbanization process fundaments in the urban geography represents a revision and an update of the previous editions. The changes that have been made for the current edition are mainly linked to the restructuring of the material for a better logic for the main subject of debate. Thus, the chapters and the content have been reorganized in just 15 chapters from 18 in the previous editions. On the other hand, there were included new texts and information with concrete examples for current issues (global financial crisis, students that became homeless, earthquakes in Haiti and Japan), both in the urban system of the United States of America and in the international context. Also, the book includes new geographical subjects, such as gender discrimination, environmental problems induced by the brownfields and greenfields, intelligent development and green urbanism. The current edition has been updated with a website for completing the experience of understanding the urbanization in a geographical context.

"Urbanization: An Introduction to Urban Geography, Third Edition" is a very attractive book through the exposed problem, the highlighted geographical research information, the organization and the style of writing for all types of readers. The volume is an essential reference for the international urban geography, thanks to the complementarity achieved between synthesizing the theories regarding the urbanization process and the concrete deepening through quantitative and qualitative methods in terms of current issues for the urban space.

Roşia Montană in Universal History: International Conference, 11-12 November 2011

Pompei Cocean (editor), Cluj University Press, 2012, 198 p.
ISBN 978-973-595-361-4

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Roşia Montană Gold Corporation (RGMC) project is one of the main issues discussed since 1999 in the Romanian Medias and in the academic environment, opening more and more debates on the impacts that the project will have. This phenomenon has the tendency to create really critical and extremist attitudes and it groups people into three main categories: those who see the RGMC as a saviour for the entire region and do not take in consideration any other "adverse effect", others who have a clear vision of the project and try to balance the facts in order to provide a realistic opinion and those who have the tendency to see only the negative aspects and take the eco-civic spirit to a very high level dissemination.

The book entitled *Roşia Montană in Universal History,* published in 2012, represents a collection of papers presented during the conference with the same title that took place between 11th-12th of November 2011 in Cluj-Napoca organised by the Romanian Academy, Babeş- Bolyai University and ICOMOS Romania. The book is composed of a conference resolution with 16 ideas that where discussed and agreed by the participants and 24 papers that present various points of view, both national and international, from different academic fields.

The structure of the book is very well organised, starting from the first paper with an overview of the Romanian Academy, through the so-called *Position of the Romanian Academy on the Gold Mining Project in the Apuseni Mountains* presented by Ionel Haiduc that is like a general statement for the rest of the articles presented in the book. The general opinion is that the RGMC Project has a negative impact on various fields of national interest and it will be highlighted also during the following articles.

The next two papers: *"The Gold Quadrilateral" in the Apuseni Mountains and the Gold-Silver Ores Mining Dilemma* by Ioan Marza and *Roşia Montană Deposit and its Associated Mineral Substances* by Aurel Sântimbreanu try to present the geological situation in the area by highlighting the effects that the exploitation could have, the rare and disperse metals in these deposits and also they give solutions to avoid the disaster that Gold Corporation could provoke by creating the Roşia Montană National Park or by transforming it in a beautiful and prosperous settlement.

Archaeological and cultural heritage occupy also a very important place in the volume's hierarchy with two papers on *The Archaeological Patrimony of Roşia Montană* (Ioan Piso) and *Roşia Montană: an Assessment of the Cultural Heritage* (Virgil Apostol, Ştefan Bâlici) ,both stating that there is insufficient research in the area concerning the real patrimony. The first one underlines the

discovery of the tablets from the Roman law in the area and signalises the illegalities committed by the Romanian authorities, especially by the Ministry of Culture and Cults. The second one is based more on the Association "Architecture, Restoration, Archaeology" (ARA) report on the idea of adding Roşia Montană to Romania's Tentative List for the World Heritage and tries to emphasize the outstanding example of mining landscape developed over a very long period of time.

The most part of the articles concern the geographical domain, more precisely 14 papers, divided into two main areas of interest- physical and environmental geography and human geography and territorial development. The physical and environmental geography involves articles on climate analysis- *General Climatic Conditions in Roşia Montană Area* by Florin Moldovan, Adina-Eliza Croitoru, Iulian-Horia Holobâcă, hydrography – *The Hydrographic Network- Mobilisation Vector of Polluants in Roşia Montană Area* (Răzvan Batinaş, Victor Sorocovschi), biodiversity- *The Bothanical and Anthropogenic Landscape of Roşia Montană* by John. R. Akeroyd, *Natural Reserves and the Biodiversity of Roşia Montană Area* (Viorel Gligor), soil analysis- *Effect of Cyanide on the Soil Quality* by Gheorghe Ianoş, Nicolae Doca, Viaceslav Mazăre and also numerous papers on the landscape and environmental risks produced by the mining activities in the area. All the articles try to underline the problems that could be caused by the mining activity, the severe and long-lasting effects they could have and all give the advice of reconsidering the manner of exploiting the deposit. As previous stated, all the articles have common denominator, the tendency to see only the negative aspects of the RMGC Project. A very interesting article is *Red Sludge Disaster in Hungary* by Janos I. Toth.

In terms of human geography and territorial development, the articles concern tourism - *Tourism–Coordinate of a Long-Term Sustainable Development in the Roşia Montană Area* (Nicolae Ciangă, Cristina Bolog), agriculture - *Agriculture - A Complementary Economic Branch* (Sorin Filip and Nicoleta David) and planning - *Principles for Territorial Development in the EU and the RMGC Project* (Andrei Marga, Pompei Cocean). The papers are very well argued through various ideas and also sustained by a number of maps and graphics that present the real situation in the area.

The economical field is not forgotten in the volume, but very well sustained with 4 articles that analyze the costs, the usefulness of the project, the actors involved in the project and also some documents that were unrevealed for the public. Also these articles maintain the idea of somehow criticizing the entire project.
A special attention should be awarded to the article concerning politics – *The "Difficulty of Politics" and the Complex Problematic of the Gold Mining at Roşia Mo*ntană by Gheorghe Lencan Stoica who starts the article underlying the evil influence of the politics of anti-politics and the political corruption, but gets into a comparison with the resources of Amazonia under the Brazilian dictatorship and forgets about the Roşia Montană, referring to it just in the end as it is the main idea of corruption in Romania.

The media is also involved through the article *Construction of Risk Regarding RMGC in the Romanian Written Press* by Cosmina-Maria Berindei and Ion Cuceu who is the only one analyzing the so-called objective opinion of the scientists and the subjective one, seen as "the perception of danger".

As a conclusion, the book has the advantage of assessing an interdisciplinary opinion on the RMGC issue, but doesn't succeed in acquiring the real state of the facts without being caught in the negativist spirit influenced by the Medias.

Aims and scopes

Analysis of the urban and regional condition needs to be interdisciplinary. In reality, urban researchers usually tend to belong to a discipline reflecting their training whether as sociologists, geographers, planners or any number of subjects concerned with the study of space and place. Our training very often endorses an appreciation of how other disciplines explore the city. For the journal the acknowledgement of the many disciplines that concerned with understanding cities and regions will be indicated by the different disciplinary back-grounds reflected in the papers published. Articles will be published by geographers, sociologists, planners, economists, political scientists, to mention just few of the disciplines involved in urban and regional study.

The Journal of Urban and Regional Analysis plans to be a key outlet publishing topical articles dealing with cities and regions. In later issues we plan to include sections devoted to notes and comments as well as a policy section outlining and discussing state and non-state initiatives aimed at improving cities and regions, together with the problems confronted by their implementation.

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1. The Journal of Urban and Regional Analysis seeks to redefine and revigorate the links between geography, sociology, planning, economy, political science. It aims to publish original academic research, critical studies and discussions of the highest scholar standard in the field of urban and regional development. Submitted papers will be evaluated on the basis of their creativity, academic quality and contributions to advancing understanding of the complex problems related to urban and regional development.

2. Submitted manuscripts must be original, unpublished contributions. They must not be submitted or accepted by any other publications. All articles submitted to the Journal will be available online, free of charge.

3. One electronic copy of the manuscript (sent by email in PDF format) should be submitted to either of the two Editors listed below.

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*** (1938-1941), *General Romanian Population and Settlements Census on December the 29th 1930*, I-X, ICS, Bucharest.

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