

Cristian Suau TRANSGRESIVNI URBANIZEM: (Ob)mejna območja in urbana neformalnost ameriških mest ob vseameriški cesti

TRANSGRESSIVE URBANISM: Borderlands and Urban Informality of American Cities along the Pan-American Highway

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1.01 Izvirni znanstveni članek

IZVLEČEK

Raziskava obravnava načine za preseganje političnih mej, da bi razvili podrejene oblike urbanizma in robnih pogojev, s ciljem primerjalne analize (ob)mejnih mest v Amerikah, kjer prevladujejo sive ekonomije in jih najdemo vzdolž vseameriške ceste (angl. Pan-American Highway) – največje prometne infrastrukture na Zemlji. Ta zemeljski prometni koridor deluje kot velik linearni urbanizem in sestavlja ekonomski katalizator hitro rastočih urbanih gospodarstev in scenarijev politične regionalne integracije (»mehke meje«) ali utrditve (razmejevanje). Zaradi mejnih obremenitev so se v procesu »trenutnosti« različne sive urbane ekonomije nadgradile in dosegle primerne standarde proizvodnje, porabe in izmenjave. V zvezi z regionalnem razvojem je bil neposredni učinek vseameriške ceste – od Aljaske do Patagonije – razširitev formalnih in neformalnih ekonomskih in trgovinskih koridorjev ob glavni infrastrukturni mreži, ki oblikuje urbano strukturo (ob)mejnih mest. Po eni strani raziskava odraža mejne pogoje ameriških mejnih mest, v katerih vladajo formalne in neformalne ekonomije. Po drugi strani primerja in kritično prikazuje družbeno-prostorska načela infrastrukturnega urbanizma in pojav metapolizacije (Ascher, 2004) urbanih ekonomij v izbranih mejnih mestih. Novost te raziskave je opazovanje in kartiranje novih prostorskih načrtov v obmejnih krajinah vzdolž največjega infrastrukturnega sistema na Zemlji.

KLJUČNE BESEDE

politična geografija, infrastrukturni urbanizem, (ob)mejna območja, hibridne krajine, (ob)mejna mesta in neformalnost

ABSTRACT

This study explores the ways in which political boundaries can be trespassed in order to develop subaltern forms of urbanism and edge conditions, mainly to the comparative study of border cities in the Americas, predominantly ruled by informal economies, and which are situated alongside the largest land-transport infrastructure on Earth called 'Pan-American Highway'. This land transport corridor operates as a grand linear urbanism and constitutes the economical catalyst of emerging urban economies in scenarios of political regional integration ('soft boundaries') or fortification (demarcations). As result of border pressure, the process of 'instantness' has upgraded various informal urban economies to adequate standards of production, consumption and exchange. In terms of regional development, one of the direct impacts of the Pan-American Highway – from Alaska to Patagonia – has been the expansion of formal and informal economic and trade corridors along this main infrastructure network, which is shaping the urban structure of border cities or towns. On one hand, this study reflects on the border conditions of American border cities ruled by formal and informal economies. On another hand, it compares and critically reflects on the socio-spatial principles of infrastructural urbanism and the phenomenon of metapolitisation (Ascher, 2004) of urban economies in selected border cities. The novelty of this study lies in the observation and mapping of new spatial schemes in border landscapes alongside the largest infrastructure on Earth.

KEY-WORDS

Political Geography, Infrastructural Urbanism, Borderlands, Hybrid Landscapes, Border Cities and Informality

UVODNIK
EDITORIAL
ČLANEK
ARTICLE
RAZPRAVA
DISCUSSION
RECENZJA
REVIEW
PROJEKT
PROJECT
DELAVNICA
WORKSHOP
NATEČAJ
COMPETITION
PREDSTAVITEV
PRESENTATION

1. INTRODUCTION

Border conditions are connected to the establishment of socio-economic forces that rule the production and occupancy of every-day spaces in cities. This phenomenon creates a *'new geography of centrality and marginality'* (Bayat, 2000), which is characterised by contestation, internal asymmetries, and discontinuous transgressions¹ between territories in friction, mainly in borderlands and border towns.

How do these urban dynamics operate and interplay between international, regional and urban frontiers? Economists and geographers have pointed out that urban forms have often been driven by neo-liberal forces (Brenner, Peck, and Theodore, 2012) with a stark increase in regional and global dissimilarities (Scott and Storper, 2003), growing environmental problems (Bateson, 1972), displacement of rural communities, extension of slums, informal employment and the dismantling of socio-environmental protections (Davis, 2006).

Urban corridors, mega urban regions and city regions are emerging across national borders in Europe. The phenomena of border environments can be analysed through interurban (within the same city); trans-urban (bet-

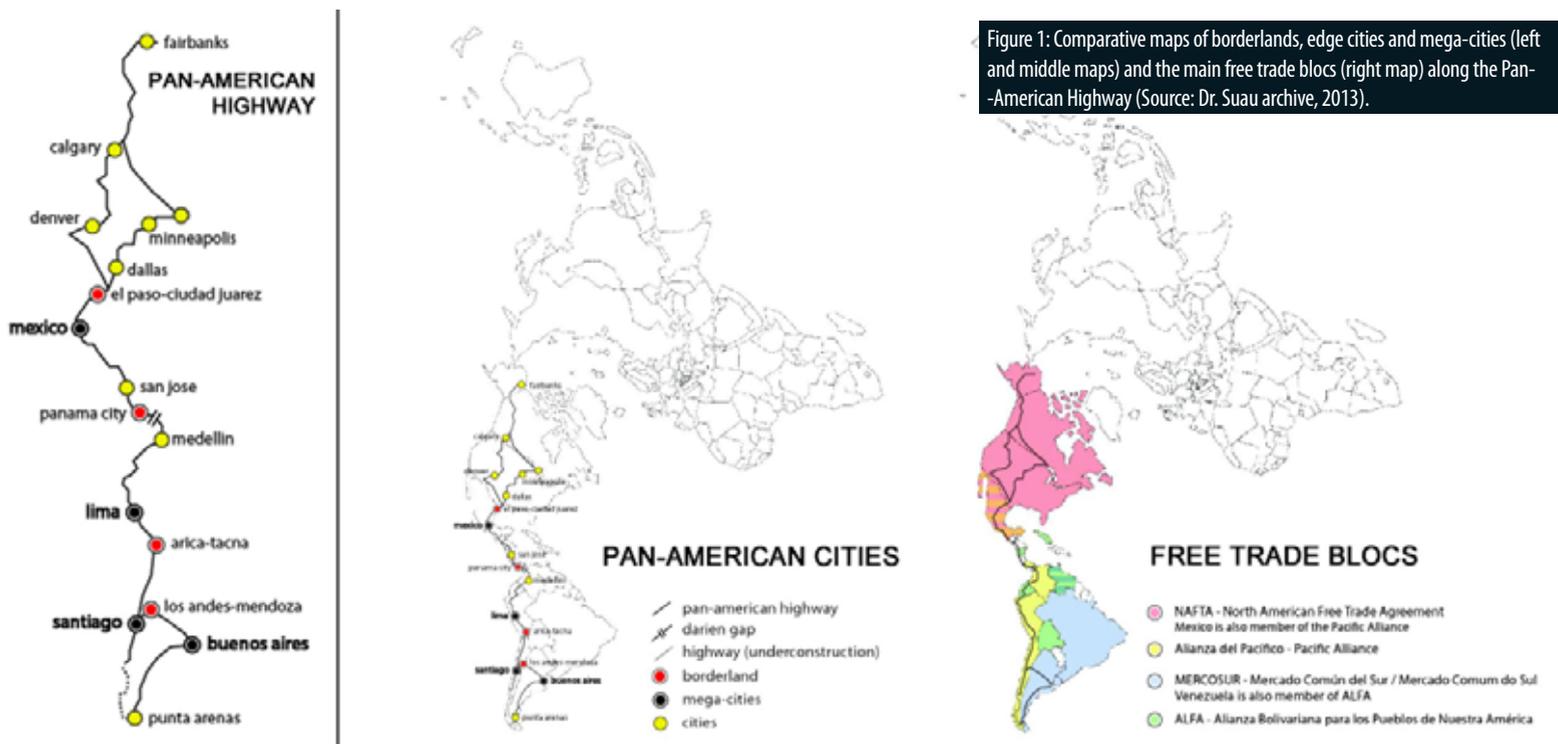
ween various cities) and trans-regional (between more regions, states or countries) levels. Border cities perform like the strategic economic regions gateways. These border conditions are defined by visible vs. invisible; hard vs. soft; formal vs. informal; isotopic vs. heterotopic environments.

Whilst the attributes of natural boundaries are defined by the internal structure of enclosed territories, the artificial borders delineate a territory from the margins inwards. Man-made borderlands are understood as peripheral or edge voids, buffer lands allotted between frictional political, ethnic and economic shores. They can fluctuate from highly dense strips to uninhabited borderlands, both vulnerable to processes of demographic shrinkage, political or economic abandonment or ecological dereliction (Solà-Morales, 2002; Daskalakis, Waldheim and Young, 2006).

This study explores the ways in which political boundaries can be trespassed in order to develop subaltern forms of urbanism and edge conditions, mainly to the comparative study of border cities in the Americas, predominantly ruled by informal economies, and which are situated alongside the largest land transport infrastructure on Earth called *'Pan-American Highway'*². This land transport corridor operates as a grand linear urbanism

1 Transgression (etymology): Late 14c., from Old French *transgression* (12c.), from Late Latin *transgressionem* (nominative *transgressio*) "a transgression of the law," in classical Latin, "a going over," from *transgressus*, past participle of *transgredi* "go beyond," from *trans-* "across" (see *trans-*) + *gradi* (past participle *gressus*) "to walk, go" (see *grade*). *Transgression* (definition): 'An act that goes beyond generally accepted boundaries.' Source: <http://www.etymonline.com/index.php?term=transgression>

2 "This titanic route so-called Panamericana in Spanish, with about 32,700 km and numerous geographical, environmental and urban contrasts, has captured the imagination (and hostility) of visionary planners, engineers and environmentalists for many decades. It represents a systematic attempt of linking and organising cities and regions in the Americas, through formal and informal dynamics of transportation, economic development and urban processes" (Suau, 2012).



and constitutes the economical catalyst of emerging urban economies in scenarios of political regional integration ('soft boundaries') or fortification (demarcations).

As result of border pressure, the process of 'instantness' has upgraded various informal urban economies to adequate standards of production, consumption and exchange. In terms of regional development, one of the direct impacts of the Pan-American Highway – from Alaska to Patagonia – has been the expansion of formal and informal economic and trade corridors along this main infrastructure network, which is shaping the urban structure of border cities or towns (Figure 1).

This type of 'instant urbanity' constructs new urban conditions – transitory, intermittent or spontaneous ones –, which flees from any conventional planning. This study reveals new spatial principles and configurations of 'informalism' applied in the border cities of South America, mainly the borderlands of Tacna (Peru) – Arica (Chile) and El Paso (US) – Ciudad Juarez (Mexico).

However, what are the functional, morphological or environmental impacts of temporal activities in existing border cities (formal/informal border environments) along the main transport corridors? How those informal systems mutate, resist or perish? What are their implications in terms of urban sustainability and resilience?

On one hand, this study reflects on the border conditions of American border cities ruled by formal and informal economies, which expand or constrain alongside the main land-transport infrastructures, passageways, gateways and trade zones. These corridors operate as a sort of linear urbanism, hybrid bands that constitute the catalyst of urban economies by connecting the movements of people, services, and goods within and outside border cities.

On another hand, it compares and critically reflects on the socio-spatial principles of infrastructural urbanism and the phenomenon of metapolitisation (Ascher, 2004) of urban economies in selected border cities, putting special emphasis in the dynamic transformation of open spaces or voids within urban border environments where 'differential spaces' (Lefebvre, 1970) can be classified as:

- (a) 'terrains vagues', vacant spaces out of urban regulations or speculative pressures;
- (b) *brownfields*, abandoned or disused industrial zones;
- (c) *no-man lands*, lands that are unoccupied or under dispute between nations; and
- (d) *slums*, defined by the UN-HABITAT as informal settlements within cities.

The novelty of this study lies in the observation and mapping of new spatial schemes in border landscapes alongside the largest infrastructure on Earth. The main objective is to foster the trans-disciplinary knowledge of integration and regeneration strategies between border cities by taking into account the following aspects in the chosen case studies: Marginality, Informality, Porosity, Friction, Edge, Interface, Hybrid and Transition. In doing so, this study integrates geography, urbanism and landscape as the key

areas of knowledge. Methodology involves selective literature review, data collection and spatial analysis; geo-urban analysis and mapping (inclusive transects and photographic recording) and fieldworks.

2. BORDERS, URBAN TRANSGRESSION AND INFORMALISM

Nowadays American nations are currently facing important challenges in the arenas of political geography and regional planning mainly by the management of urban regional integration triggered by the increased trade, people's mobility and unprecedented socio-economic pressures. Latin American cities are experiencing a new phase of modernisation towards urban-based economies.

Due to the rapid externalisation of production and services, capital's flows, the acceleration of cycle of production and new transport and communication systems, informalised American economies are transforming cities and regions in restructured dynamic spaces that show the complexity of 'illicit' spatial appropriations along main transport corridors.

Urban form (and landscape) follows economic flows. American informal economies constitute a dynamic urban process, which includes many aspects of economic and social urban theories (Castells, 1989). According to Manuel Castell (1989), the phenomenon of informal economy constitutes "a major structural feature of society both in industrialised and less developed countries. And yet, the ideological controversy and political debate surrounding its development have obscured comprehension of its character, challenging the capacity of the social science to provide a reliable analysis". In addition, "informality is seen in the interstice of the formal economy, either as an enclave or as an extension of the formal economy. Evidently, the way in which the informal is linked to the formal is linked to the formal is finely nuanced. The interstitial niche occupied by the informal within the boundaries of the formal economy help smooth the functioning of the formal economy. That informal function is produced by the formal for formal ends" (Laguerre, 1994).

Still there are not enough consistent observational urban studies that examine the dynamics of informality along infrastructural urban networks or, even more important, that traces its linkages with the formalised economy and its physical adaptation. **Its** intermittent nature **generates** 'liquid landscapes', **which** are not consistent, neither functionally nor environmentally, but asymmetrically distributed. It does not respond to neither local urban policies nor administrative boundaries, but to discontinuous transformations of functional, morphological or environmental means.

The Pan-American Highway encompasses thousands of kilometres of low and no-density areas, hinterlands, illegal occupations, and devastated or untouched ecologies that can function as no-man's land or be a loose aggregation of informal settlements (Figure 2).

As results urban corridors, mega urban regions and city regions appear across national borders in the Americas. Whilst the attributes of natural boundaries are defined by internal structures of enclosed territories, artificial borders delineate a territory from the margins inwards. Man-made



Figure 2: Comparative satellite views of paradigmatic border checkpoints along the Pan-American Highway. Left image: The borderland between Arica and Tacna (one road gateway). The Chacalluta border checkpoint is located in the Chilean side and Santa Rosa border checkpoint is located next to the Peruvian side. Both border checkpoints are less than 1 km. Right images: El Paso-Juárez. There are four international ports of entry: Bridge of the Americas, Ysleta International Bridge, Paso del Norte Bridge, and Stanton Street Bridge. (Source: Dr. Suau archive, 2013).

borderlands are understood as peripheral or edge voids, buffer lands allotted between frictional political, ethnic and economic shores. They are uninhabited bands or corridors, *'terrain vagues'*, which are usually declared as no man's lands and therefore vulnerable to processes of severe ecological dereliction and urban and demographic abandonment. Therefore the phenomena of border environments can be analysed through interurban (within the same city); trans-urban (between various cities) and trans-regional (border towns between more regions, states or countries) levels.

Borders are places of *'heterotopia'*, which are governed by cultural, economic and political pressures in unlabeled places. So this type of *'instant urbanity'* constructs new urban conditions – transitory, intermittent or spontaneous ones – which flees from any conventional planning. Is this type of *'instantness'* a key factor in the development of cities in the Americas?

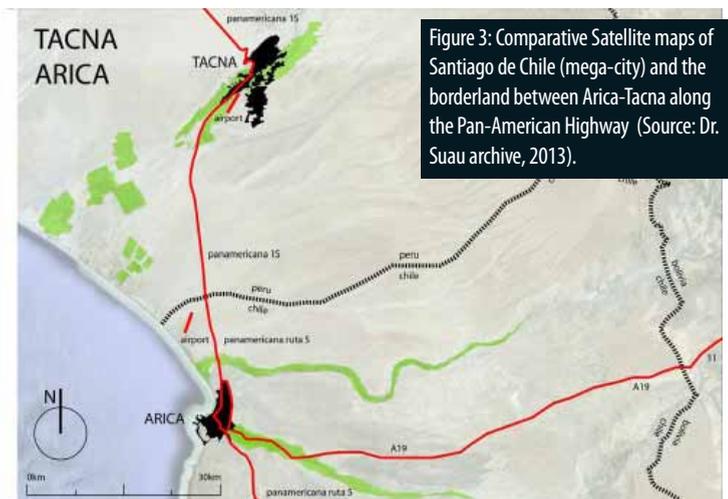
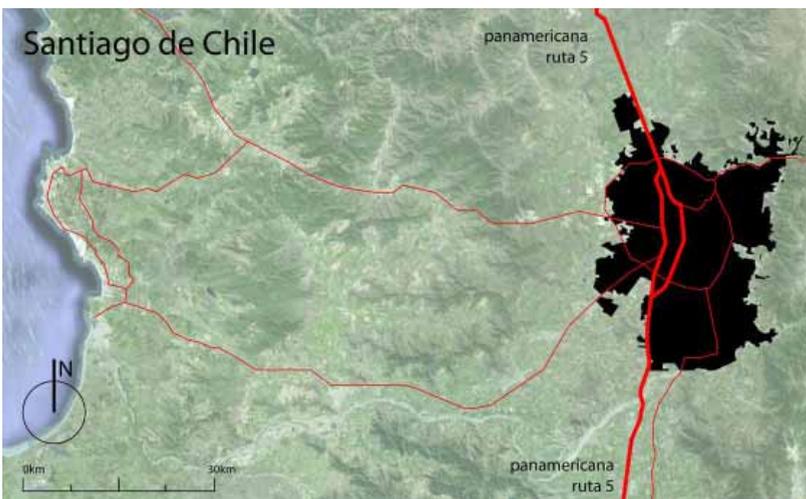


Figure 3: Comparative Satellite maps of Santiago de Chile (mega-city) and the borderland between Arica-Tacna along the Pan-American Highway (Source: Dr. Suau archive, 2013).

American border cities perform like the strategic economic regions gateways. These border conditions are defined by visible vs. invisible; hard vs. soft; formal vs. informal; isotopic vs. heterotopic environments. They can fluctuate from highly dense strips to uninhabited borderlands, both vulnerable to processes of demographic shrinkage, industrial abandonment or ecological dereliction (Solà-Morales, 2002).

Such as Michel Laguerre (*The Informal City*, 1994) states that *'the existence of these informal practices is paradoxical in the sense that they make possible the smooth functioning of the formal urban system yet at times serve as a hindrance to the achievement of ethnic and gender equality'*. For instance, the border cities of Tacna-Arica and Ciudad Juárez-El Paso are rapidly reshuffling and expanding their transport and communication networks by creating informal *bands* whilst altering the existing landscapes. These cities are formal-informal-rural-urban conurbations; spread out and discontinuous; heterogeneous and socially multi-polarised. The main transport corridor – so-called *Panamericana* – constitutes a well-defined passageway in the city core whilst becomes gradually defragmented and diffuse towards the periphery or beyond, revealing the mutation and shifting of urban spots in motion within the transport framework.

This study explores the border conditions of informality in border towns in the Americas, which are situated alongside the main transport infrastructure of the Pan-American Highway. This land transport corridor operates as *'transgressive urbanism'* and constitutes the economical catalyst of emerging urban markets and new urban scenarios.

3. INFORMALITY AS SPACE OF FLOWS

Informal cities have always been characterized by a strong tension between what is vaguely described as their formal and informal magnitudes. Nevertheless, the terms formal and informal refer not only to the physical materialisation of unregulated economies but also to their entire socio-urban tissue. Informal cities and commerce exceed the structures of order, control and homogeneity that one supposes to find in a consolidated city.

If something can unquestionably characterise the urban economy of border towns in Latin America is the every-day informal system of trade, which is outside state controlled or money-based transactions. It includes exchanges of goods and services, mutual self-help, unclassified jobs, street vending, and others manifestations. However, what are the spatial impacts of informality in border towns? The manifestation of these unregulated spaces “*may not be under direct control of city government. It can either precede the establishment of formal space or be produced by formal space or the formal use of spaces*” (Laguerre, 1994).

Then he states that “*informal space is also a product of the formal use of the urban space. Because the formal space is unable to meet the expectations of every member of the city community, individuals feel it necessary to transform formal space into informal space to conduct their informal activities. Informal space develops in this instance within the formal spatial system. It is an outgrowth of that system*” (Laguerre, 1994). So the informalisation of urban spaces can also be understood in terms of supplies and demand.

How can these informal spaces interplay with each other? These ‘*space of flows*’ – either commerce or housing- constructs new urban patterns – transitory, elusive or spontaneous- which escape from any conventional spatial planning and are driven by the premises of continuity, diversity and hybridity (Ascher, 2004).

4. BORDER TOWNS AND INFORMALITY ALONG THE ‘PANAMERICANA’

Urban informality is spatially materialised in distinctive forms of retail and housing configurations. Informal commerce, mainly categorised by fairs and street trading activities, is a common practice in border towns. Nonetheless how is this informality materialised?

For instance, the urban informality in the borderland of Arica (Chile) and Tacna (Peru) (Figure 3) is a soft border condition, mainly associated to precarious housing and sporadic commerce. It is commonly allocated at the gateways areas of urban limits and adjacent to the main highway. Even do the political boundary is in current diplomatic disputes; citizens of both countries can regularly migrate without visa control. It means that any physical expansion of each city towards the frontier should be driven by the consolidation of inter-regional markets. On contrary, informality between the borderland of El Paso (US) and Ciudad Juárez (Mexico) represents a hard border condition. The borderline of Rio Grande is one of the most militarised and controlled migration zones on earth. It is also characterised by illicit retail, which is trafficked immediately after the checkpoints of each border. One example of informal commerce is the Fox Market, a temporary market – a triangular car park lot – situated in Washington Park, only two kilometres away from the US gateway.

What types of ‘soft’ spatial configurations generate in those urban fabrics? How might we deal with these new types of transformable intermediate spaces along the main infrastructural transport networks of the Pan-American Highway? In doing so, the study identifies distinctive informal spaces and typologies – either commerce or housing – in the following border conurbations: El Paso (US) – Ciudad Juárez (Mexico) and Tacna (Peru) – Arica

(Chile). The connections are intermittent, permanent, interstitial, central or peripheral depending on the distribution of low-income urban communities in each border cities. These informal spaces are categorised as macro-spaces (food fairs, flea markets, shanty towns, etc.) and micro-spaces (street vendors, push-carts, cardboard houses, etc.) of informality.

4.1 El Paso–Juarez, Cross Border City

The Chihuahuan Desert surrounds El Paso. El Paso is located at 31°47’25”N 106°25’24”W. The city’s elevation is 1,140 metres above sea level.

It lies at the intersection of three states (Texas, New Mexico, and Chihuahua) and two countries (the USA and Mexico). El Paso (Figure 4) is the nineteenth most populated city in the United States of America and the sixth most crowded city in the state of Texas.

In Texas (US), borderlands commerce can be highly categorised into informal or underground urban economies. By inspecting long-term study, observation, and participation in the border region of South Texas offers

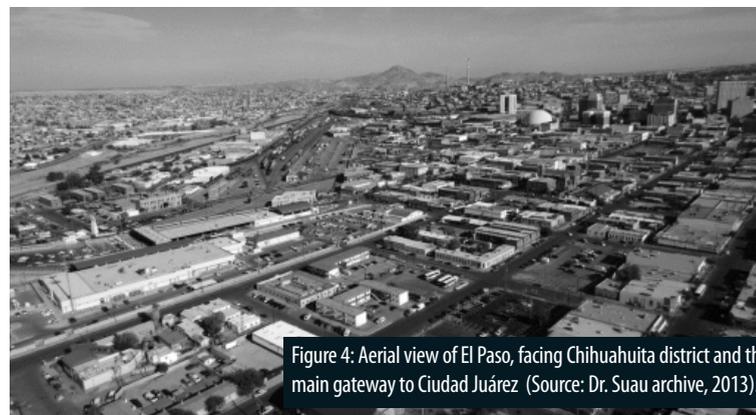


Figure 4: Aerial view of El Paso, facing Chihuahuista district and the main gateway to Ciudad Juárez (Source: Dr. Suau archive, 2013).

exceptional insights into the causes and effects of these economic channels. The illicit economic activities increase when residents perceive the state’s intervention in the impoverished colonias as illegitimate, whether in the form of fees, taxes, or regulation (Richardson, C. & Pisani, 2012).

The metropolitan area covers all of El Paso County, whose population in 2010 was 800,647 inhabitants. The El Paso metropolitan area had a population of 736,310. According to the United States Census Bureau (2006), the city has a total area of 648.9 km². El Paso has historically been predominantly Hispanic: 80% (75% are Mexican). The population density is 873.7 inhabitants per km² (census 2010). Similarly to the border between San Diego and Tijuana, El Paso and Ciudad Juarez represents a situation of asymmetric patterns of urban informality – shanty versus generic suburbia-, which have shifted from the Mexican side towards the American side.

The Rio Grande River defines the border between El Paso from Ciudad Juárez to the south and west until the river turns north of the border with Mexico. The two cities form a combined international metropolitan

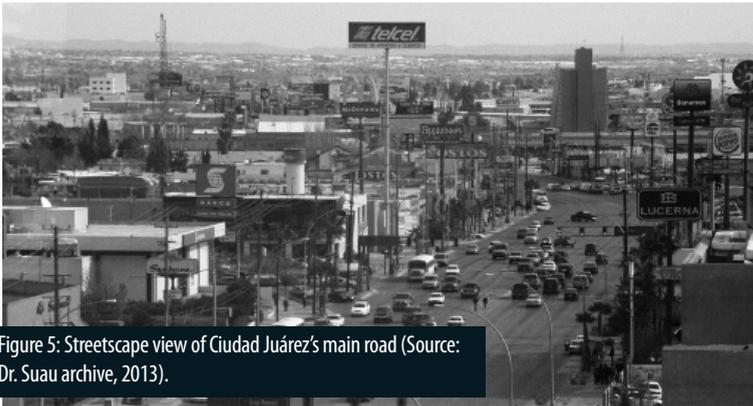


Figure 5: Streetscape view of Ciudad Juárez's main road (Source: Dr. Suau archive, 2013).

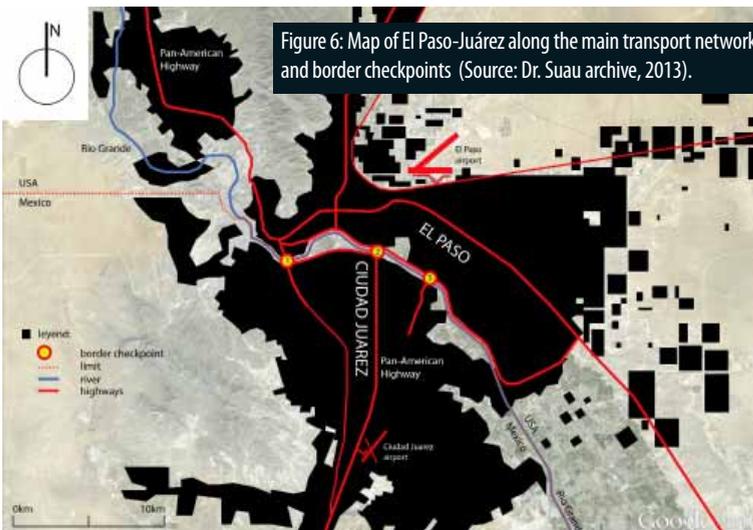


Figure 6: Map of El Paso-Juárez along the main transport network and border checkpoints (Source: Dr. Suau archive, 2013).

area, sometimes called 'El Paso-Juárez', with Juárez being the significantly larger of the two in population. They have a combined population of two million, two-thirds of which reside in Juárez. El Paso and Ciudad Juárez comprise the second largest border metropolitan area on the US-Mexico demarcation with a combined population of 2.1 million inhabitants.

Ciudad Juárez (Figure 5), formerly known as 'Paso del Norte', is a large city in the Mexican state of Chihuahua. The city lies on the south riverside of Rio Grande: 31°44'22"N 106°29'13"W. Ciudad Juárez and El Paso are one of the 14 pairs of cross-border town naming along the US-Mexico border.

Ciudad Juárez has grown substantially in recent decades due to a large influx of people moving into the city in search of jobs more than 300 maquiladoras (assembly plants) located in and around the city. This rapid economic growth has originated slum-housing communities called 'colonias', which have become extensive. (Figure 6)

According to the 2010 demographic census, the city had 1321004 inhabitants. The average annual growth in population over a period (1990-2000) was 5.3%. Ciudad Juárez experienced much higher population growth than



Figure 7: Fox Flea Market is an informal marquee in El Paso. The federal government has a strong presence in El Paso as a border region. The Immigration and Customs Enforcement (ICE), the Drug Enforcement Administration (DEA), and the Customs and Border Protection Agency (CBP) have agency operations to regulate traffic and goods through gateways from Mexico (Source: Dr. Suau archive, 2013).

the state of Chihuahua as a whole. It is one of the fastest growing cities in the world despite being called 'the most violent zone in the world outside of declared war zones'. Local sources estimate that over 116,000 houses have been abandoned (230,000 people have left) due to the violence levels and more than ten thousand formal businesses – 40% of the total – have shut.

4.2 Informal Retail Case: Fox Flea Market, El Paso

Informal commerce, mainly categorised by fairs and street trading activities, is a common practice in the urban and suburban areas of many Latin American cities. In El Paso (US) (Figure 7) this practice runs differently. It has been banned in the city core whilst remains still strong in the impoverished suburban areas like Tejas, Chamizal or Segundo Barrio. So where is the informal commerce accommodated nowadays? As result, the informal market has been shrunk and expelled and concentrated in less visible spaces backwards.

Although informal trade remains visually displaced, the Fox' every-day activity constitutes a vivid expression of domestic economies which are excluded to co-participate in the formal sector. Regarding the informal commercial spaces, we can distinguish macro (flea markets or open-air food fairs) and micro retail spaces (street vendors and push-carts) situated in the city core; gateways and immigrant quarters of El Paso. The Fox Flea Market is well known as a marketplace for local trade and gathering. Situated in a disused large car park lot, it offers a polyvalent usage allowing different manifestations of commercial activities weekly.

The phenomenon of informal macro-commerce consists of domestic scale trade, which resembles the public extension of dwellers' backyards. It is the *locus* where informal communal and economic interactions occur. Informal trade in marginalised areas of El Paso enhances the sense of every-day

appropriation of vacant spaces. The adaptability of the street life has to do with the ability to support formal and informal activities and interactions.

4.3 Borderland Between Arica and Tacna

In Latin America, the largest informal economy has Bolivia with 67.1%, followed by Panama with 64.1% and Peru with 59.9%. The lowest informal economy is Chile with 19.8%, similar to the OECD-West European countries' average (Schneider, 2002).

Arica is located at 18°29'S 70°20'W. It is a commune and a port city with a population of 185,269 people in the northern Chile, situated only 18 km south of the border with Peru. The city is the capital of both the Arica Province and the Arica and Parinacota Region.

The growing city of Arica spreads outward into the desert and the Peru-Chile border. The urban area of Arica has 185,441 inhabitants in an area of 41.89 km². Arica in 2007 had more than 186,000 inhabitants (excluding the agro-settlements in the valleys of Lluta and Azapa). According to the 2012 census of the National Statistics Institute, Arica Province spans an area of 4,799.4 km² and has 213,595 inhabitants. 95.7% of the whole population live in urban areas and 4.3% in rural areas. The population is a mixture between old natives dwellers and Europeans or their descendants who arrived at different times of local history. Some *Ariqueños* still have a kinship with the cultures of Peru and remotely Bolivia.

Economically, it is an important port for Chilean minerals, tropical agricultural and tourist destination. It is also the centre of rail communication with La Paz (Bolivia) and Tacna (Peru) by separate railroad lines. Arica has its own international airport and strong road connections with the city of Tacna; many people cross the border or '*Linea de la Concordia*'³ daily to travel between the cities, partly because many services are low-cost on the Peruvian side. (Figure 8)

Tacna is an inland city in southern Peru and the regional capital of the Tacna Region. It is located at 18°03'20'S 70°14'54'W, on the border with Chile (between the Pacific Ocean and in the valley of the Caplina River). It has a population of 242,451 people. It is located only 35 km north of the border with Chile. Tacna is a very commercially active city with many immigrants from the Puno Region. Its economy is based on mercantile activities with the north of Chile (Arica and Iquique). Since it is part of a duty free zone, Tacna has come to rival Arequipa as southern Peru's main business area. The city has one of the largest artefact markets in the world with imports from Japan and China, and traditional Peruvian handicrafts.

Currently commerce between these cities is increasing due to they are fuelled by free trade accords, duty free zones, two airports, one railway and port. *The Panamericana* itself is the natural roadmap to convert, in the long term, the no-land man in a unified regional hub.

³ The '*Linea de la Concordia*' is the name given to the border between Chile and Peru, fixed by the Treaty of Lima of 1929, which established the return of part of the Province of Tacna to Peru and the permanence of the Province of Arica in Chile.

4.4 Informal Housing Case: Beyond 'Zona Urbana', Arica

This unauthorised urbanisation is made in reclaimed cardboard and shipping boards supplied by the waste of agro-fairs. The settlement is situated just after the urban limit of Arica (East side), between the Azapa Valley and the Pan-American Highway. Mostly Peruvian immigrants live in '*casas de carton*' (cardboard houses).

Being a rural zone, what is the socio-spatial articulation of this slum regarding the formal city? Since 2009 dwellers have constructed a group of one-storey housing units on a land to which the occupants have no legal claim. Similar difficulties occur in obtaining demographic data. They are often not covered by formal surveys, and many of the people living here may not be registered or officially recognized by the municipality. This slum also lacks of basic services, including medical, sanitary services and fire regulations.

We can envisage many processes by which dwellers might gain access to public housing schemes, through the purchase and land management of affordable subdivided peri-urban (agricultural) land; densification of the existing settlement by adding floors and management of an adequate level of public infrastructure (water, sanitation and power) and urban services (education, environmental health and civic amenities). (Figure 9)

5. CONCLUSIONS ON TRANSGRESSIVE URBANISM IN BORDER CITIES

There are still many obstacles to be overcome to measure the shapes and size of the informality in border towns and thus to analyse its consequences on the formal urban fabric. Informal shopping catapults '*instant urbanism*', especially along the principal peri-urban arteries and transport routes. The informal system is seen as an adaptation of the formal one. Due to its non-rigid structure, the fluidity of informality allows moving back and forth within the formal constraints and reclaims marginal positions in motion.

The study of informalised urbanism in American border cities has a high level of novelty. It nourishes the process of '*metapolisation*' and future planning of urban border environments. So '*transgressive informality*' performs as liquid landscape that fluctuates between the border cities and through the transport corridor, from core to rurality. It questions the paradigms of conventional urban planning by vindicating temporary solutions and social emancipation in frictional urban spaces through:

- Empowering temporary and playful informal architecture.* Informality allows mobility, adaptability and transformability of the socio-economic networks. Marginal spaces can be converted into places for social interplay and action.
- Transfiguring of every-day life* based on the simple premise that residents can decide the spaces they want to trade and live in.

Finally the polyvalence of informal commerce and housing in border towns is characterised by the following features:

- *Elasticity.* It is used to maintain a '*soft*' exchange process and can also be adapted to unexpected dislocations or insertions alongside the corridor.

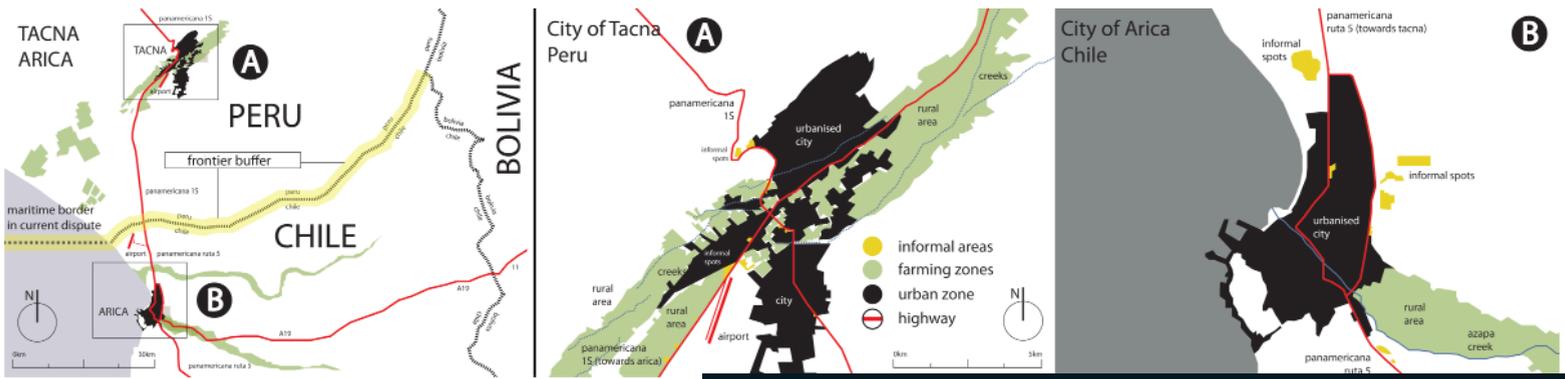


Figure 8: Map samples of the international frontier or 'soft buffer zone' between Chile and Peru (left image) and the cities of Tacna and Arica along the Pan-American Highway (middle and right images) (Source: Dr. Suau archive, 2013).

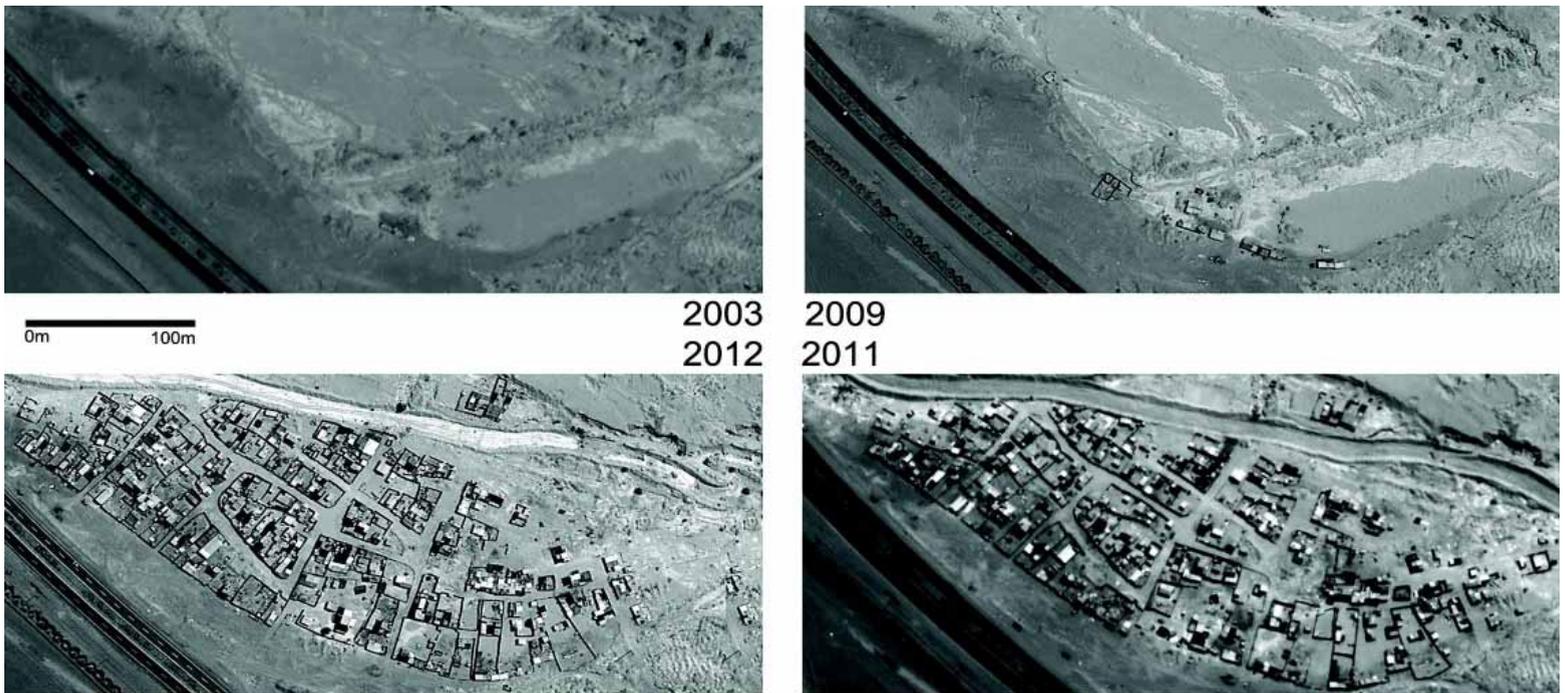


Figure 9: Beyond 'Zona Urbana': Informal immigrant settlement outside the urban limit of Arica. Top (clockwise array): Evolution of the squatter from 2003 to 2012. Bottom: Panoramic view of the 'campamento'. (Source: Dr. Suau archive, 2013).



- *Latent vesus active.* Its performance either remains in a dormant state (or intermittent activation) or active one when it is used regularly.
- *Transformative.* It is resilient with a view to changing any aspect of formal social layer. It can initiate collaborative partnerships between community interests and the formal retail or real estate sectors, allowing for more inclusion.
- *Transgressive.* It provides a robust structure of resistance. The formal infrastructural support creates substitutive informality in order to continue to operate easily. This 'safety-valve function' offers a place where informal traders and dwellers plot out their strategies to destabilise or disrupt the formal infrastructure.

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