HOW TO SELL MACAU LEARNING WITH THE TERRITORY'S STAGED URBAN REINVENTION



DISSERTATION FOR INTEGRATED MASTER'S DEGREE IN ARCHITECTURE by MARIANA CRUZ VAZ PIMENTEL

under the supervision of DR. WALTER ROSSA and DR. HENDRICK TIEBEN

DEPARTMENT OF ARCHITECTURE • FACULTY OF SCIENCES AND TECHNOLOGY UNIVERSITY OF COIMBRA

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Also, a warm note to my dear relatives and friends who have as well embarked on this journey through Macao.

Glossary of Acronyms

Boundary Cross Facilities BCI
[Shizimen] Central Business District CBD
Closer Economic Partnership Arrangement CEPA
[Portuguese] Gabinete para Apoio ao Desenvolvimento dos Aterros Taipa-Coloane GADA
Great Pearl River Delta GPRE
Hong Kong Special Administrative Region [of the People's Republic of China] HKSAF
Hong-Kong - Zhuhai - Macao Bridge HKZME
International Council on Monuments and Sites ICOMOS
Individual Visit Scheme IVS
Light Rapid Transit System LRTS
Meetings, Incentives, Conventions/ Conferences & Exhibitions/ Events MICI
Macao Government Tourism Office MGTC
Macau Special Administrative Region MSAF
[Portuguese] Novos Aterros do Porto Exterior NAPI
Pacific Asia Travel Association PATA
Pan-Pearl River Delta Region PPRDF
People's Republic of China PRO
Pearl River Delta PR C
Special Administrative Region SAF
Severe Acute Respiratory Syndrome SARS
Special Economic Zone SEZ
[Portuguese] Sociedade de Jogos de Macau SJN
[Portuguese] Sociedade de Turismo e Diversões de Macau STDN
United Nations Educational, Scientific and Cultural Organization UNESCO
[Portuguese] Zona de Aterro do Porto Exterior ZAPI

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01.Map of the People's Republic of China 02.Map of the Pearl River Delta



Introduction

Since the official establishment of the Macao Special Administrative Region [MSAR] in 1999, which meant its handover to the People's Republic of China [PRC], this territory has been in delirious transformation. The liberalization of the gambling industry and the consequent proliferation of casinos and luxury hotels, as well as the recent inscription of its Historical Centre in the UNESCO's World Heritage List are the most significant events of the last decade. In fact, the territory has become a severe case of a flourishing economy since then, especially due to its blooming tourism industry, mostly driven by the gambling sector and its high revenues. Together, these singularities have been leaving an impressive mark on the city which has been attracting millions of tourists every year, while making way for remarkable financial growth, promoting Macao's wealthy status.

Undoubtedly, Macao has evolved into a well known touristic city in the first decade of the new authority, but with no further land to grow, limited infrastructures and reduced array of industries, the city could not afford being on the verge of becoming a victim of its own success. New measures became necessary to prevent Macao from urban and economic failure. In order to inhibit the city of running out of attractiveness, the government has realized the need to implement new measures tailored to the territory's updated reality and ambitions.

In addition, one must not disregard the powerful influence of its surrounding area, the Pearl River Delta [PRD] region. Since the late 1970's, when the PRC introduced a new open-door policy, the financial growth of the nation has been unquestionable. The world now looks up to the PRC as an economic powerhouse, where the PRD has played a crucial part, revealing itself as one of the motors of such prosperous economy. Once under the PRC sovereignty and with its matchless location at the doorway of the Chinese mainland, Macao has been recognized as an integrating element of the national development blueprint and acknowledged as part of a larger regional endeavour. It is the PRC's will to launch the implementation of a mega conurbation having the MSAR, the Hong Kong Special Administrative Region [HKSAR] and the city of Guangzhou (in PRC's mainland) as the three main supporting cores, taking advantage of each area's main specificities:

"[...] the Pearl River Delta will strengthen its cooperation and coordination with Hong Kong and Macao to bring into play each other's advantages. The region is supported to pursue convergence with Hong Kong and Macao in terms of urban planning, rail transit networks, information networks [...] so as to forge jointly the most dynamic and internationally competitive city cluster of the Asia-Pacific region."²

In addition, the development plan for the PRD has "set for the first time the placement of Macao as a tourism and leisure centre at the global level [...], which demands more effort from the

² Creation of New Situation for Opening-up and Cooperation (Chapter XI) in **The Outline of the Plan for the Reform and Development of the Pearl River Delta (2008-2020).** [Online].

administration of the MSAR and introduces a new dynamic for a more efficient participation of Macao in the regional cooperation."³

The MSAR government had already defined the city as a *selling* product through various measures on the development of Macao as a touristic city, but the PRC's announcement came as a reinforcement of the MSAR tourism-oriented governmental discourse, whose future development is now supposed to occur in concurrence with its neighbours, readjusting itself to the stated PRC's course of action.

Being Architecture a key strategy within the management and marketing of territories, How to sell Macau⁴ proposes a journey along the urban reinvention planned for the territory, which is being conducted as a means to provide the city with a new promotional image and superior living quality, surpassing its inherent morphological drawbacks. In fact, several projects are being implemented already, whose effects on the territory will be irreversible. For this research, the structuring of the city planning was based on three major topics: CITYSCAPE; REGIONAL INTERLOCKING and TRANSPORTATION NETWORK, essential to attract investors and potential inhabitants; to promote a global satisfaction level amongst the residents and, most importantly, to serve as a tourism booster.

This research is presented in two main chapters. Chapter 1 will firstly focus on Macao, contextualizing its latest urban and economic transformations, providing an overall understanding of the territory's urban change narrative until what Macao stands for nowadays. Also, taking into account that "China's international cities cannot form without the surrounding metropolitan interlocking region," it will *take a tour* around Macao to get to know its neighbours, comprehend its role within this vast area and assess the valuable significance of such urban region for its future development.

Chapter 2 will embark on the analysis of the most decisive projects for the upcoming years. These will be divided into sub-chapters according to their *nature*. CITYSCAPE will focus on the main project affecting the territory's skyline and waterfront arrangement: the new landfills plan, while REGIONAL INTERLOCKING will present the joint plan for the Hengqin island and the Shizimen Central Business District [CBD] on the nearby municipality of Zhuhai (in PRC's mainland). At last, TRANSPORTATION NETWORK will highlight the implementation of the Macao Light Rapid Transit System [LRTS] as well as the Hong Kong-Zhuhai-Macao Bridge [HKZMB] venture.

As the result of my emergent curiosity on the way this territory is perceived nowadays, this research attempts to inform of the challenging and unprecedented momentum that Macao is currently facing by picturing the overall expected transformation and mapping the city's intended expansion. Needless to say, this *mise-en-scène* would not be complete without pointing out eventual contradictions or adversities such as the UNESCO regulations, the high population density, the evident discrepancy between the *old* and the *new* city and, more importantly, the lack

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³ Government of the MSAR - **Linhas de acção governativa para o ano financeiro de 2011**, 2010. p.26-30. [translated by the author] ⁴ At the London's World Travel Market 2010, Macao's tourism authorities unveiled a quide named "How To Sell Macau" to showcase

the developments that had previously taken place in Macao. ⁵ LOGAN, John R. - **The new Chinese city**, 2002. p.70.

of an urban and tourism master plan, both deemed vital to successfully achieve a sustainable city vision.

Acknowledging the new city's *image* as more than its physical appearance or outer shell, it also aims at questioning how the new proposals will intervene in the creation of a new figure for the territory and in which way they will be a catalyst for the consolidation of its status as a world-class engaging tourism centre, along with its regional partners. What prospect of urban planning is there for Macao and who takes *responsibility* for it? Is it all in the hands of the PRC or does the MSAR has a valid say on its future? To what extent does the tourism-related objectives are influencing the city planning?

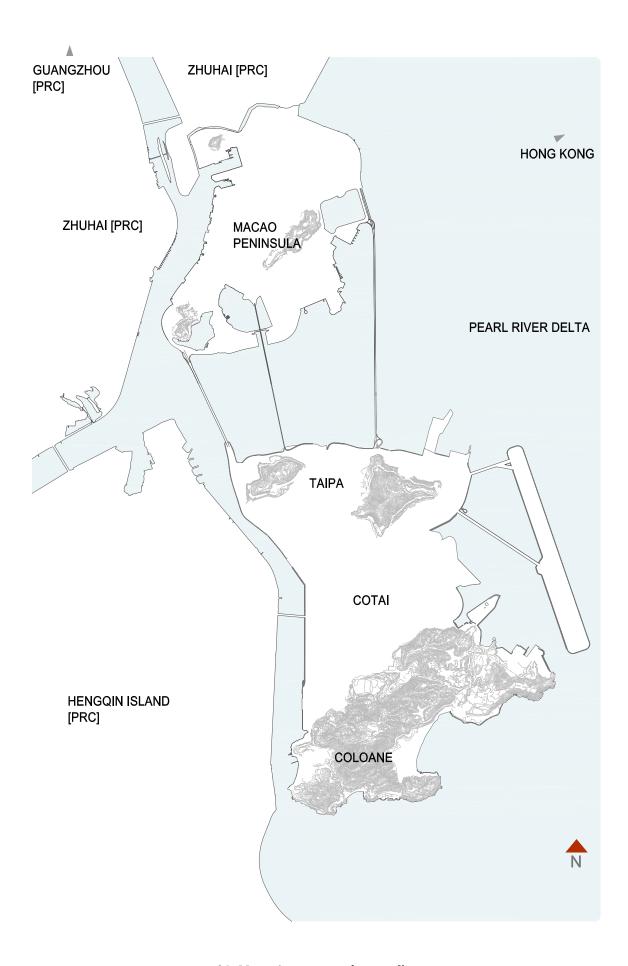
Indeed, while revealing strategic planning as a powerful political instrument, it explores the political principles, motivations and intervenient parts lying underneath such mega territorial operation under the context of the socio-economic restructuring process in implementation since the handover.

However, the city itself is never a finished project.⁶ Instead, its essence relies on the continued sequence of different stages, miscellaneous strategies and plans. Therefore, this research is not able to attain an irrefutable portrayal of Macao's future urban development. In order to assure the utmost certainty and precision (for the time being), this essay was mainly based on official reports and governmental publications and ordinances, academic papers, interviews and articles, attended seminars and exhibitions. Nonetheless, it still has a fair *margin of error*. None of the mentioned projects is near conclusion, allowing enough time for eventual amend of the plans, circumstances or even the *players* involved.

Whether Macao will *survive* or not to this ambitious announced metamorphosis is hard to tell so far. Even so, I still find it essential these days to build up awareness, thereby one should still address the hereafter presented intentions and perhaps, learn *with* Macao's *sui generis* citymaking.

⁶ LYNCH, Kevin - **A Imagem da Cidade**, 2000.

Chapter I



01. Macao's current urban outline

Section 1

The Launch of a new Era

Macao is a *city-state* located on the southern coast of the People's Republic of China, 145km southwest of Guangzhou (English: Canton), the capital of Guangdong province (in PRC's mainland). Facing the South China Sea, Macao lies on the western side of the Pearl River Delta (Zhu Jiang River) only 60km far from Hong Kong, and is contiguous to the Zhuhai Special Economic Zone (in PRC's mainland) on the northern border. To its west runs the West River (Xi Jiang River).

The territory comprises the Macao Peninsula and the island of Taipa, Cotai and Coloane, in a total of only 29.9km². With an estimate population of more than half a million inhabitants, it is known for having the highest population density worldwide.⁷

"Today is a day of nationwide celebration for the people of all ethnic groups in China, including our compatriots in Macao. The Governments of China and Portugal have held the ceremony for the transfer of government of Macao. The Chinese Government has solemnly declared its resumption of the exercise of sovereignty over Macao and the official establishment of the Macao Special Administrative Region of the People's Republic of China. It signifies that Macao has entered on a new era in its development and that henceforth our Macao compatriots will be the masters of this land. [...]

The first rays of the 21st century are on the horizon."8

On 20th December, 1999, Macao left behind almost five centuries of Portuguese administration to become the second Special Administrative Region [SAR] of the PRC⁹ setting up a new development era. In 1979, Macao had already been acknowledged as *Chinese territory under Portuguese administration*, but it was only in 1987 that both governments came to an agreement and the *Joint Declaration on the Question of Macao* was signed. This declaration established the process by which Macao would return to Chinese sovereignty, maintaining its capitalist economy and enjoying a high degree of executive autonomy, which is known as the *one country-two systems* rule.

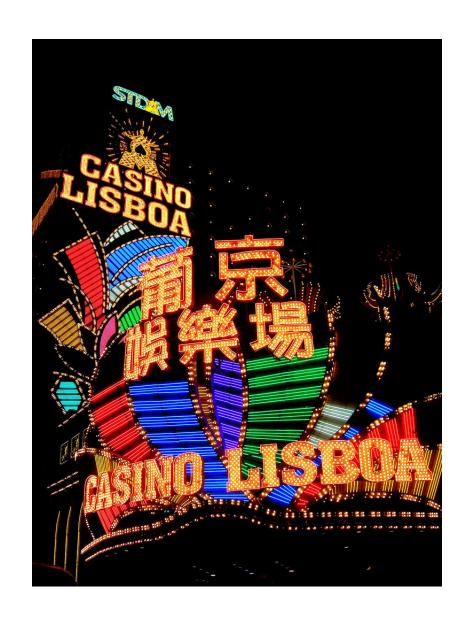
As stipulated in the Basic Law of Macao - approved by the PRC in 1993 and effective immediately after the handover - the MSAR is now allowed to enjoy a high degree of autonomy on various matters until 2049, including the legal and monetary system, the police force or even its immigration policy. On the other hand, the PRC's central government holds responsibility for the territory's defense and its foreign affairs. Moreover, it has also reassured its authority over Macao's maritime boundaries, a determinant issue for this territory.

By the handover, Macao's finances were about to get stagnant but the years to come soon after the establishment of the MSAR proved to be a magnificent shake-up for its economic progress. Three major turnovers were of great importance for the territory's rebirth: the

⁷ By the end of August 2011, the population included in the Census 2011 was 552.503. Yet, according to the governmental Statistics and Census Service, the estimate population of Macao was 568.700 by the end of June 2012.

⁸ Jiang Zemin, President of the People's Republic of China, at the Ceremony in Celebration of the Establishment of the Macao Special Administrative Region of the People's Republic of China, 20th December 1999, *in* **Handover Ceremony Speeches**. [Online].

⁹ The first SAR to be implemented was the Hong Kong Special Administrative Region in 1997.



02.The STDM monopoly

liberalization of gambling; the attainment of the World Heritage status and the implementation of an overall tourism-oriented governance.

2001, Setting up an odyssey: three important turnovers

The gambling liberalization

Under the PRC's one country-two systems resolution, casino gambling was kept legal in Macao, though remaining illegal in the mainland. in fact, Macao has been a gambling destination since the 16th century when the territory opened its doors to immigration.

Firstly, the mainland workers and coolies working at the inner harbour were the main players. Those days there was no regulation whatsoever, which explains why so many gambling houses were in service everywhere in the peninsula. It was only in 1847, after Hong Kong surpassed Macao as a commercial haven, that the Portuguese administration ruled over the gambling industry. By the end of the 19th century this was already the major industry in the territory and a very important source of tax income, given its prosperity. With no surprise, within a few decades the Portuguese administration defined Macao as a permanent gambling territory under a low-tax policy, whose economic growth should be anchored on the gambling sector and consequent tourism industry.

The following century gave birth to the gambling monopolies, firstly to the Tai Heng Company in 1953, and later, in 1961, to the well known Sociedade de Turismo e Diversões de Macao [STDM], owned by Stanley Ho (1921-). The STDM remained exclusive until recent years and was the promoter of some iconic projects as the Hotel & Casino Lisboa (1970), one of the oldest in the territory, still fully active.

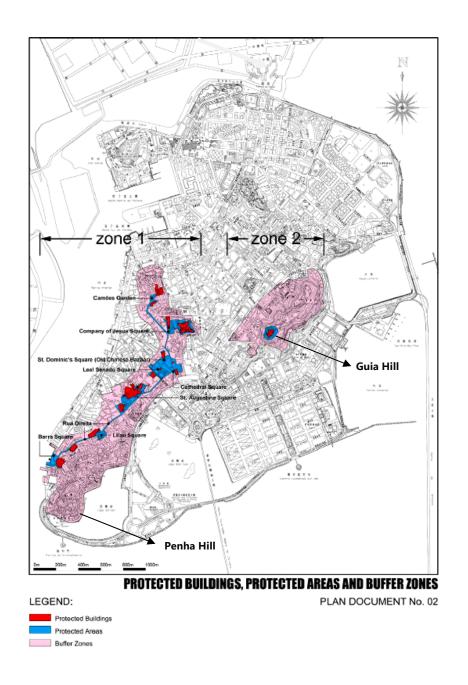
On 21st December, 1999, one day after the handover, the new Executive Chief, Dr. Edmund Ho (1955-), announced the need for a special report on the gambling industry which should be conducted by a team of international experts. One year later a specialized committee was founded to overview all gambling activities and, lastly, in 2001 the recently empowered Executive decided to put an end to the Stanley Ho's imperious monopoly.

Aiming to diversify the industry¹⁰ while attracting new foreign investments, three new concession contracts were signed in 2002. Stanley Ho's Sociedade de Jogos de Macao [SJM - a subsidiary of STDM], along with the Galaxy Casino SA and the Wynn Resorts SA (both Las Vegas operating companies) were the fortunate ones, but later on the same year, the Venetian Macao SA (a subsidiary of Las Vegas Sands Corporation) was given permission to operate as a Galaxy Casino SA subconcession. The same conditions were soon granted to the MGM Grand Paradise SA (now MGM Resorts) and to the Melco PBL Jogos SA (now Melco Crown), who signed subconcession contracts with the SJM and the Wynn Resorts SA respectively. 11

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¹⁰ By the end of the 20th century, Macao was facing security issues. Several organized groups within the gambling sector were generating a scenery of increasing violence and criminality in the city, putting the tourism activity at risk.

11 Macao Gaming History. [Online].



03.The Historic Centre of Macao

The new generation of gambling entrepreneurs introduced new architectural standards in design and management, and have been acknowledged as important tourist attractions. The liberalization of gaming caused a massive increase in the number of casinos and with a 35% tax on gross gaming revenue and a 1.6% contribution to the Macao Foundation, as well as a 1.4% (by SJM) or 2.4% (by the others) contribution to the Infrastructure/Tourism/Social Security Fund, the gambling industry became a solid pillar of Macao's economy. Before 1999, the gaming industry's maximum annual gross revenue was MOP17.78 billion, whereas in 2011 it reached MOP270.25 billion.¹²

The World Heritage status

"In July 2001, with the great support of the China's National Heritage Institute, the Government of Macao officially began the work of Macao's application to the World Heritage List of UNESCO. The inclusion in this list will foster the economic, tourist and cultural development in Macao and neighbouring areas, as well as improve its image and position in the international arena. This will contribute significantly to the future development of the city."¹³

Macao is renowned for its historical sino-latin characteristics that distinguish the city's aura. It stands witness to the oldest encounter between West and East, and imperatively, this blending of different cultures has built an exceptional *architectural experience* originated at the historic core zone of Macao.

Macao's first bid to UNESCO's World Heritage Centre was named the "Historic Monuments of Macao" and presented twelve fragmented sites, which was allegedly reckoned as a very disordered proposal lacking consistency and sense of unity. However, having followed the ICOMOS experts recommendations, an exclusive architectural alignment was put together, integrating a wide range of public urban spaces such as squares and streets, reinforcing the complex texture of mixed cultures impregnated in Macao's old centre.

Supported by the PRC's central government, the new executive successfully reviewed its application for the UNESCO's World Heritage List as suggested by its advisory entity [ICOMOS]. Due to the unique impact of this cultural fusion, the Historic Centre of Macao¹⁴ attained World Heritage status in 2005, meeting the expectations of the PRC's central government that had put aside other expectant sites to grant Macao its full support:

"Macao represents an outstanding example of an architectural ensemble that illustrates the development of the encounter between the Western and Chinese civilizations over some four and half centuries, represented in the historical route, with a series of urban spaces and architectural ensembles." ¹⁵

¹² Tourism and Gaming Statistics. [Online].

¹³ **Diário da Assembleia Legislativa de Macau.** December 7, 2001. [translated by the author]

¹⁴ The Historic Centre of Macao is an extensive urban area, including 8 public squares (Barra Square, Lilau Square, Santo Agostinho Square, Senado Square, Sé Square, S. Domingos Square, Companhia de Jesus Square, Camões Square) and 22 distinct buildings (A-Má Temple, Moorish Barracks, Mandarin's House-Museum, São Lourenço Church, São José Church, D. Pedro V Theatre, Sir Robert Ho Tung Library, Santo Agostinho Church, Leal Senado building, Sm Kai Vui Kun Temple, Holy House of Mercy, Sé Church, Lou Kau's House, São Domingos Church, São Paulo's Ruins, Na Tcha Temple, a section of the Old City Walls, Monte Fortress, Santo António Church, the Garden House, the Old Protestant Cemetery and the Guia Fortress).

 $^{^{\}rm 15}$ Decisions of the 29th Session of the World Heritage Committee. [Online]. p.130.







04. Saint Paul's Ruins (1936) 05.View of the Praia Grande Avenue and the Penha Hill (1954) 06.The Leal Senado square (nowadays)

The World Heritage status is the ultimate recognition of the territory's secular interchange, but this new position has brought along infinite responsibilities and concerns. Even though the Portuguese administration had already put forward an intense research and effort on heritage recognition and preservation, the buffer zones applied to Macao were offered special notice since some of its inscribed sites are to be found in higher points of the city. The World Heritage Committee specifically recommended that Macau should "make every effort to develop the management system so as to retain the existing structural and visual integrity, and to maintain the principal sightlines of the nominated area within its contemporary setting."

These guidelines ought to have exceptional consideration due to their influence in the upcoming urban development of the territory. Since the territory has been missing efficient heritage-oriented legal framework, one may ask how the city planning has been harmonized with the heritage issue. One regulation was implemented in 2007, when a 90-metre height restriction was applied to buildings near Guia Hill, the peninsula's highest point (94 meters above sea level). This directive came as an attempt to minimize the *screening effect*¹⁷ of the territory's accelerated growth, which might menace the secular figure of this *hills, sea and city*¹⁸ territory.

Undoubtedly, the World Heritage Committee will not ask for less. The government of the MSAR, willing to "monetize the historic and cultural resources that Macao has," thus taking advantage of the impending cultural heritage tourism, must be aware of the imminent threats. Certainly, this includes honoring the World Heritage status without neglecting the territory's evolution, allowing it to be a privilege and thriving opportunity instead of a heavy burden.

Indeed, Macao is a case of heritage preservation success in the region, offering better examples than the former British territory of Hong Kong, and it really should *play this card* wisely.²⁰ The excerpt that follows reflects the conscious will of the MSAR in suppressing its heritage safeguarding flaws in order to achieve the desired sustainable growth: "We will strengthen the protection and dissemination of the World Heritage of Macao and promote the integrated development of cultural tourism and leisure tourism. We will consolidate the image of Macao as a tourist city and radiate the effects of being World Heritage."²¹

¹⁶ Ibidem, p.131.

¹⁷ TIEBEN, Hendrik - **Urban Image Construction in Macau in the First Decade after the "Handover" 1999-2008**, 2009.

¹⁸ Land, Public Works and Transport Bureau of the MSAR - **Anteprojecto do plano director das novas zonas urbanas**, 2011. p.10-13. ¹⁹ Ibidem, p.5. [translated by the author]

²⁰ Information stated by Dr. Anthony Yeh, Head of the Department of Urban Planning & Design of the Faculty of Architecture of the University of Hong Kong.

²¹ Government of the MSAR - **Linhas de acção governativa para o ano financeiro de 2010**, 2009. [translated by the author]



	No. of Total Visitors	No. of International Visitors
1995	7,752,495	998,988
2011	28,002,279	3,041,447

07. Number of Mainland and International visitors in Macao since 1995

The tourism-oriented governance

In fact, until now, being an UNESCO enlisted city and a renowned gambling resort has made of Macao one of the most thriving destinations in Asia. In its first years as a Special Administrative Region, Macao experienced an exhilarating transformation. Trading and exports are now minor sectors within the local economy, while tourism has taken the lead notoriously, accounting for more than 50% of the local Gross Domestic Product [GDP], according to data provided by the governmental Statistics and Census Service.²² Both the liberalization of the gambling industry and the admission into the UNESCO's World Heritage List drove the territory to a spectacular boom, and the city became a recognized leisure destination.

A closer look at the official records²³ may be of help in comprehending such enhancement. For instance, in 1999, 7.443.924 tourists visited Macao. In 2006, immediately after having received positive feedback from the UNESCO, 21.998.122 visitors entered the territory, and the number continued to rise steadily, breaking records each and every year. By the end of 2011, 28.002.279 tourists had crossed the borders to *experience* Macao: its cultural background, its shopping opportunities and its entertainment services. (Comparatively, Hong Kong received 42 million visitors in the year of 2011.)²⁴

Despite its long history and great impact in terms of local economy and international prestige, Macao's tourism industry has been forced to change, striving to meet the city's expectations and needs. Given the fact that it was the only gambling territory in East Asia, the nostalgic ex-Portuguese colony suddenly became a Chinese flourishing target. The PRC's central government, aware of the enchanting effect of Macao over the mainland citizens - who account for the majority of Macao's total visitors²⁵ -, emitted new regulations on their travelling visas, easing the previous restrictions in order to minimize the negative impact of the Severe Acute Respiratory Syndrome [SARS]²⁶ outbreak occurred in 2003, which was feared to cause a crash in the visitors numbers

Prior to the Individual Visit Scheme [IVS], travelers from mainland China could only enter Macao and Hong Kong holding either a business or group visa. The opportune implementation²⁷ of the IVS in 2003 allowed the mainland visitors to visit both SARs on an individual basis which resulted in a great increase in the mainland visitors numbers right away, boosting the tourism-based economy once again. Currently, approximately 300 million Chinese citizens are allowed to apply to this new visa system.

Macao saw its tourism profits and gambling revenues greatly increase over the last decade, and has been *awarded* with headlines in the most respected foreign media since 2006, when its revenues (USD6.95 billion) exceeded those of Las Vegas (USD6.6 billion) for the first time.

²² Tourism and Gaming Statistics. [Online].

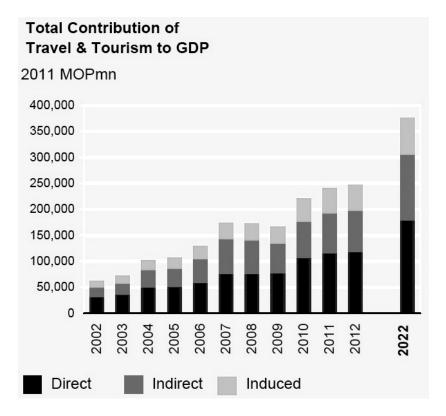
²³ Idem.

²⁴ **Tourism Performance in 2011**. [Online].

²⁵ 58% of Macao's total visitors in 2011 were from the PRC, according to the Macao Government Tourist Office. Cf. **2011 Macao Travel** and Tourism Statistics, 2012. p.33.

²⁶ The SARS is a viral respiratory disease. It stroke in Hong Kong between November 2002 and July 2003. Although the SARS did not affect Macao, the new individual visit scheme was extended to the MSAR.

²⁷ The IVS was implemented throughout diverse stages, and is still gradually extending to the various regions of the PRC.



Travel & Tourism's Total Contribution to GDP		2011 % share
1	Macau	88.2
38	Thailand	16.3
42	Hong Kong	15.2
48	Malaysia	14.8
	World Average	14.0
87	China	9.2
91	Indonesia	8.8
97	Philippines	8.5
121	Japan	6.7
146	South Korea	5.3
156	Taiwan	4.6

08. Total contribution of Travel and Tourism to Macao's GDP

There has been an astonishing financial growth of 465% since 2005,²⁸ explaining why the territory is now placed in the international market as one of the finest investment *products*.

More than ever, cities are now being dealt with as sellable items. With the advent of global tourism, place branding is becoming a fashionable instrument for cities looking to magnetize worldwide investment, and in this *contemporary consumer economy*, the specificity of a territory can be the key element to bring into play, shaping and defining its unique urban identity.²⁹

Indeed, in order to capitalize on their distinctiveness, cities are impelled to put into action strategic self-promoting measures amongst residents, investors and hypothetical visitors. City branding, mega-event hosting or bizarre architectural design are some of the most common marketing approaches, but generally speaking these marketing campaigns aim at the formulation of an envisioned *city image*.

As conceptual abstractions, city images represent way more than mere depictions. They tend to emphasize each local's exclusive characteristics (history, politics, landscape, culture, arts...) "in such a way that its recipients will see it as the marketing first intended [...] forming a bridge between a city's potential and the use of this potential,"³⁰ thereby providing them with a plausible identity, for the city's own benefit. Imposed perceptions seem to play a more important role than reality sometimes but in fact, cities should be advertised with accuracy if they are bound to create a sustainable image.

Although some might argue that "cities are not products, governments are not producers and their users are not customers," examples abound as urban brands are aggressively developing worldwide under a destination-marketing highly competitive environment. Successful city marketing models are those of New York under the slogans *I love NY!* and *The City That Never Sleeps*; the *Uniquely Singapore* advertising campaign or the Hong Kong's promotional concept as *Asia's World City*. In fact, Hong Kong and Singapore share with Macao the fact that they are relatively small territories managed by a single governmental unit as well.

In the case of Hong Kong and Singapore, private and public agencies have been working together to promote the city by means of an appropriate and recognizable visual identity, easily accredited by residents, visitors and investors.³²

On the other hand, in Macao, the handover proved to be a milestone in regard to tourism policies, which has been *managed* by the Macau Government Tourist Office [MGTO] since then. City marketing has been of great importance in the last decade. With the establishment of the MSAR in 1999 new policies emerged, positioning tourism as the main economy booster, where the cultural sightseeing, casino gamble and the MICE [Meetings, Incentives, Conventions/ Conferences & Exhibitions/ Events] sector should prevail.³³

²⁸ Tourism and Gaming Statistics. [Online].

²⁹ ASCHER, François - Novos Princípios do Urbanismo & Novos Compromissos Urbanos, 2010. p.115.

³⁰ DEFFNER, Alex; LIOURIS, Christos - City Marketing: A Significant planning tool for urban development in a globalised economy. [Online].

³¹ Idem

³² BOUCHON, Frederic; TUNG, Lisa; LIM,Tau Sian - "Sayangi Kuala Lumpur?" - Branding Strategies For Metropolitan Areas in Institute for Tourism Studies (ed.) - 3rd International Conference on Destination Branding and Marketing, 2009. p.84-98.

³³ MENGA, Zhang; WEIA,Yu; YUB, Yang - On Life Cycle of Cultural Heritage Engineering Tourism: A Case Study of Macao. [Online].



The first step was to spread the message within the local community. In 2001, at the dawn of this odyssey, a large-scale promotional program was set up by the MGTO in an attempt to enlighten the resident population about the city's touristic offer and their role as Macao's ambassadors. *Macau Welcomes You*,³⁴ as it was named, was undoubtedly the most important one as a catalyst for Macao's overall sense of pride. In addition, several training courses were held to assist the tourism industry, which by that time was "facing new challenges and opportunities in the wake of the decision on the new concessionaires for the gaming industry, as well as the open market policy of the mainland," as stated by the MGTO's Director, Costa Antunes. "It is time that the citizens learn about the importance of tourism," he added.³⁵

Right after the UNESCO's application was successfully approved, the MGTO launched the promotional campaign *Experience Macau* with the slogan <u>A World of Difference, The Difference is Macao</u> to "establish the image of Macao as a [worldwide] cultural heritage tourism destination," which is still in use.

Nonetheless, soon it became clear that Macao should overcome its downsides cooperating with the nearby cities. Being a relatively small territory, Macao relies on its partners to diversify its touristic offer. Since 1993, Macao has been establishing innumerous pacts with the HKSAR, Zhuhai, Guangzhou and Shenzhen, as they are in close geographical proximity and have fairly distinct cultures and landscapes complementing each other.³⁷ In recent years, the three authorities have come to an agreement to reinforce intercommunication, with all territories aiming at developing *multi-destinations in one trip* itineraries in order to regulate the recreational market within the region.³⁸

Thereby, it becomes important to get familiar with the region's outline to allow full understanding of Macao's reality. Indeed, "Macao's growth and transformation in contemporary times can only be understood in the framework of its territorial relationship and economic dynamics resulting from that dialectic."³⁹

³⁴ "Macau Welcomes You" Tourism Promotional Program (2001-07-03). [Online].

³⁵ Macau Tourism Awareness Campaign (2002-03-22). [Online].

³⁶ MGTO Annual Marketing Meeting opens (2007-06-25). [Online].

³⁷ Back in 1993, Macao established a Tourism Marketing Organization with the Guangdong Province and the HKSAR to promote regional tourism around the world. In 2007, the three authorities came to an agreement once again to reinforce intercommunication and exchange ideas, which also happened in 2008 under a tourism cooperation protocol signed with both the Shenzhen Tourism Bureau and the Guangdong Provincial Tourism Administration. Recently, the MGTO added one more cooperative agreement in tourism with the Hong Kong Tourism Board (HKTB), the Travel Industry Council of Hong Kong (TICHK), the Shenzhen Municipal Bureau of Culture, Sport and Tourism and the Zhuhai Municipal Bureau of Culture, Sports and Tourism.

³⁸ Shenzhen, Hong Kong, Macau and Zhuhai Signed the First Cooperative Agreement in Tourism (2012-09-25). [Online].

³⁹ TOSTÕES, Ana; DIAS, Pedro - Macau, China - Historical Background and Urbanism. [Online].



10. Map of the PRC's Special Economic Zones

Section 2

Acknowledging Macao's metropolitan environment

The Pearl River Delta (Zhujiang Delta) is the low-lying area surrounding the Pearl River Estuary, where the Pearl River system flows into the South China Sea, forming a bay which separates Macao from Hong Kong. Usually, the Pearl River Delta [PRD] is geographically defined as a triangle expanding from Guangzhou to Hong Kong (eastern side) and from Hong Kong to Macao (southern side), but must also be understood as "a concept and a vision working towards economic, social and bureaucratic integration in a way that will maintain and expand its role as one of the world's powerhouses of industry and commerce."⁴⁰

The People's Republic of China open-door policy at the Pearl River Delta region

In fact, the PRD has been one of the leading motors of the PRC's recent economic escalade. Still, the PRD's intensive urbanization did not occur until the mid-1980's, after being designated as an open economic zone in 1985 following Deng Xiaoping's⁴¹ open-door policy dated from 1978, after which "city after city rose like fairy tales."⁴²

Soon after the death of Mao Zedong⁴³ in 1976, Deng Xiaoping reintroduced the "Four Modernizations" theory as a means to foster the PRC's development. *Agriculture, Industry, National Defense* and *Science & Technology* were to be strengthen in order to make the PRC one of the most powerful economies of the 21st century. To accelerate such process the country would have to rely on lesser conservative policies, since the PRC had not been open to international trade for a long time.

While opening its doors to the world, the PRC was aware of the importance of being able to attract foreign investment. Special measures had to be implemented and Special Economic Zones [SEZ] were designated to fulfill such purpose. In a progressive way, between 1978 and 1984, a few Special Economic Zones⁴⁴ were established.

In the Guangdong province alone, two strategic cities were designated as Special Economic Zones: Shenzhen, on the northern border of Hong Kong; and Zhuhai, Macao's closest neighbouring territory. These SEZ's benefit from Guangzhou's long history of external connections and also from the convenient proximity to Macao and Hong Kong, two perfect intermediary territories for international trading. Both SEZ's constitute experimental economic structures, meant to channel the foreign investment in order to speed up the PRC's modernization plan by

 $^{^{\}rm 40}$ TAM, Luisa (ed.) - The confluence of affluence: the Pearl River Delta story, 2005. p.12.

⁴¹ Deng Xiaoping (1904-1997) was the *paramount leader* of the PRC from 1978 to 1992, and despite never having held an official supreme position, he is still known for having revolutionized the nation's economy. The *paramount leader* is the highest leader of both the Communist Party of China and the People's Republic of China. Until mid-1990's, the paramount leader was given political power without necessarily holding an official position in the government. Nowadays, the *paramount leader* accumulates the positions of General Secretary of the Central Committee of the Communist Party of China; Chairman of the Central Military Commission and President of the PRC.

⁴² CAMPANELLA, Thomas - T**he Concrete Dragon: China's urban revolution and what it means for the World**, 2010. p.27.

⁴³ Mao Zedong (1893-1976) is known to have been the *founding father* of the PRC. He held authoritarian power over the PRC since its establishment in 1949 until his death.

⁴⁴ The cities of Shantou, Shenzhen and Zhuhai in Guangdong Province; Xiamen in Fujian Province, and the island of Hainan.





- 11. Map of the Pan-Pearl River Delta region
- 12. Map of the Great Pearl River Delta region

stimulating the economic development of the inner cities.⁴⁵ They were granted flexible governmental procedures by reducing the investment expenses for international entrepreneurs and corporations, thus creating much more appealing conditions for the sought-after foreign investment.

In other words, the SEZ's were "laboratories for the contained unleashing of capitalism [...] where determinations could be made about which western practices were most suitable" for the $PRC.^{46}$

Zhuhai's outstanding geographic location, its wide range of supporting infrastructure and its deep-water port already constitute a major attraction for foreign capital, but since the beginning of the economic reform, Zhuhai has been able to build up a stronger foundation based on sustainable progress and on the development of new technology. It has in fact established a variety of *science parks*, *industrial and economic zones*, and was recently pointed out as one of the central cities in the PRD by the PRC's central government, with potential to become a regional hub for transportation.

The city has been linked to Macao for a long time, but the future will witness a stronger cooperation between both territories from which a closer bond will be settled. The Hengqin New Area project in particular (explored in Chapter II) is supposed to act as one of the *meeting points* where Macao and Zhuhai will join efforts to bring to life the desired interconnected city-region.

Confident in the success of its reform, the PRC continued the implementation of this new policy. In 1985, the PRD was designated as an *open economic zone*. By that time, the three SEZs had already been established and various other municipalities were soon to be considered *open cities*, while being given some of the financial benefits of the SEZs. Overall, a great effort was made since then to gradually open up the country to the foreign trade, which resulted in a diversified network of coastal and internal areas apt for international deals.

As far as this wide region is concerned, different notions and concepts usually overlap.

The **Pearl River Delta Economic Zone**, as specified by Guangdong province, includes nine municipalities (Guangzhou, Shenzhen, Dongguan, Foshan, Jiangmen, Zhongshan, Zhuhai, and the urban areas of Huizhou and Zhaoqing); the **Great Pearl River Delta** [GPRD] region is commonly known as the conjugation of the PRD Economic Zone and the SARs, whereas the **Pan-Pearl River Delta Region** [PPRDR]⁴⁷ is a much wider area, covering roughly 20% of the PRC's land mass and 30% of its population.

These concepts have been recently associated with the creation of a megacity, but in reality they refer to a series of regional plans and agreements signed between all parties in order to enhance the region's advantages and raise a stronger economy, constituting more of a *South*

⁴⁵ DIOKO, Don; SCHULZ, Achim; VONG, Fanny (eds.) - **Macau, Zhuhai: a two headed export dragon,** 1993, p.71.

⁴⁶ Ezra Vogel cit. in CAMPANELLA, Thomas - **The Concrete Dragon: China's urban revolution and what it means for the World**, 2010. p.34.

⁴⁷ In the year of 2004, and despite all the political and financial differences, Hong Kong and Macao were officially integrated in the PPRDR after having signed the Pan-Pearl River Delta Regional Cooperation Framework Agreement, leading to the adoption of the "9+2" designation.





13. Optimization of the Spatial Structure of the Great Pearl River Delta city-region
14. The tourism 'gold coast' of the Great Pearl River Delta city-region

*China Metropolis*⁴⁸ kind of conurbation, as Manuel Castells has named it. The expectation is that eventually there will be a *virtual urban continuum* running from Hong Kong to Guangzhou and from there to Macao.⁴⁹

Indeed, in the last decades this once largely agricultural zone has emerged as an industrialized platform of global value, having attained a level of urbanization well ahead of the national average.⁵⁰ Obviously, such striking development brought along extensive pressure in matters such as urban strategy and planning *tools*, thus leading to a broad and strategic urban vision promulgated by the PRC's central government.

In addition, nearly a decade ago, both SARS were included in the regional cooperation plans, aiming to assist in the joint effort of designing an efficient interlocking metropolitan area. As noticed before, both Hong Kong and Macao handovers were arranged under the "one country, two systems" Deng Xiaoping's formula, which accounts for the coexistence of different economic systems under one and only superior authority, thus complying with the PRC's grand endeavour. The implementation of these agreements came in benefit to the Closer Economic Partnership Arrangements [CEPA's]⁵¹ signed between Hong Kong and the PRC, and between Macao and the PRC. It also meets PRC's best interests since the country joined the World Trade Organization in 2001.

The People's Republic of China strategic planning for the Great Pearl River Delta region and Macao's specificity within it

As a response to the new urban tribulations, the PRC's National Development and Reform Commission had been working on the *Outline of the Plan for the Reform and Development of the Pearl River Delta (2008-2020)* since 2003. The document was later released by the end of 2008 listing not only the great opportunities for the country's development, but also pointing out the upcoming challenges and issuing imperative goals for Macao and its neighbours:

"We have formulated this outline of the program for the reform and development of the Pearl River Delta with an eye to the broader national strategy and long-term development plan of the country. [...] The state will support the cooperation among Guangdong, Hong Kong and Macao in developing the service industry, and solidify the status of Hong Kong as an international centre of finance, [...] and that of **Macao as a global centre of tourism and recreation.** ⁵² [...] The region is supported to pursue convergence [...] so as to forge jointly the most dynamic and internationally competitive city cluster of the Asia-Pacific region. ⁵³

⁴⁸ Manuel Castells cit. in CAMPANELLA, Thomas - **The Concrete Dragon: China's urban revolution and what it means for the World**. 2010. p.50.

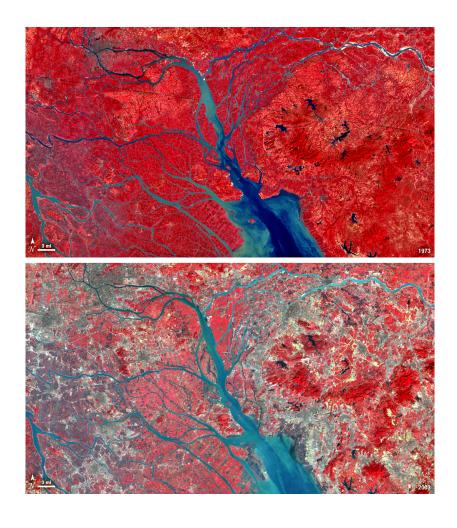
⁴⁹ CHANG, Ka-mun; ENRIGHT, Michael; SCOTT, Edith E. - **Regional powerhouse: the Greater Pearl River Delta and the rise of China**, 2005, p.141.

⁵⁰ YEUNG, Yue-man - An Emerging Development Focus from the Pearl River Delta West to Western Guangdong: A Research Report.

Established between two separate customs territories of a single sovereign state, these arrangements promote the joint economic prosperity and development of the PRC and the SAR's and enhance the level of economic and trade cooperation between them. The Mainland and the MSAR signed the "Mainland and Macao Closer Economic Partnership Arrangement" (CEPA) on October 17, 2003, confirming the full implementation of CEPA from January 1, 2004. CEPA covers commitments in three major economic and trade areas, namely Trade in Goods, Trade in Services and Trade and Investment Facilitation.

⁵² General Requirements and Developmental Goals (Chapter II) in **The Outline of the Plan for the Reform and Development of the Pearl River Delta (2008-2020).** [Online].

⁵³ Ibidem, Creation of New Situation for Opening-up and Cooperation (Chapter XI).



15. The urbanization effect in the Pearl River Delta region (1973-2003)

Such unprecedented urban formulation is the definite confirmation that the PRC is willing to project a much different image than the past one, and it is doing it mainly through its territorial visionary planning, within which the GPRD is not being spared. If "bigness and supersized sprawl may have once been American specialties [...] that monopoly has been usurped."⁵⁴

The Outline of the Plan for the Reform and Development of the Pearl River Delta (2008-2020) celebrates the 30th anniversary of the PRC's economic reform with a sharp urban strategy, setting up an extensive metropolitan region according to the new dynamics of territorialisation, where "both processes of globalization and regionalization have brought about the emergence of global city-regions and the proliferation of cross border regions." More than ever, the focus is not so much on the cities themselves. It is their interaction and accessibility that matters.

To accomplish it, there are currently two main plans guiding the development of the GPRD region. Besides the *Outline of the Plan for the Reform and Development of the Pearl River Delta (2008-2020)*, the PRC's central government launched its *National 12th Five-Year Plan (2011-2016)* in 2010, in which both SARS were included for the first time under the "*Deepen cooperation; construct the common homeland for the Chinese nation*" entitled section. The document reassured the PRC's vision of Macao as *a global tourism and leisure centre;* reinforced the need of a better transportation system and advised the implementation of the cooperation frameworks between Guangdong and the SARs.⁵⁶

Furthermore, a series of supplementary plans were jointly commissioned by the three governments (PRC, MSAR and HKSAR). Within the scope of this research the most significant ones are:

- The Overall Development Plan of Hengqin New District (explored in Chapter II):

The Outline of the Plan for Reform and Development of the Pearl River Delta called for the construction of cooperative regions such as the Zhuhai Hengqin New Area, which would strengthen cooperation with Hong Kong and Macao in service and high-tech industries.

- The Planning Study on the Coordinated Development of the Greater Pearl River Delta Townships:

This study, firstly (2006) under the supervision of only the Guangdong Province and the HKSAR, was later improved with the MSAR's input in 2009. Actually, it is the first strategic planning study brought up by the three governments and it reflects one common vision: "to build a vibrant world-class city-region".⁵⁷ It suggests that the three territories should collaborate in the implementation of competitive urban centres, but yet coordinated and sustainable. A blueprint of a transport

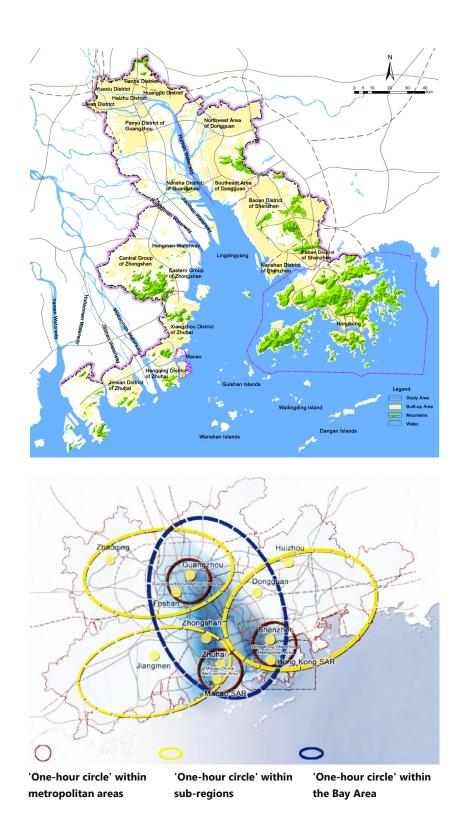
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⁵⁴ CAMPANELLA, Thomas - The Concrete Dragon: China's urban revolution and what it means for the World, 2010. p.14.

⁵⁵ YANG, Chun - Cross-boundary integration of the Pearl River Delta and Hong Kong: An emerging global city-region in China,

⁵⁶ Deepen cooperation; construct the common homeland for Chinese nation - Maintain Hong Kong and Macao's long term prosperity and stability (Chapter 57) in **The People's Republic of China 12th Five-Year Plan (2011-2016)**. [Online].

⁵⁷ Building a Coordinated and Sustainable World-Class City-Region. [Online].



16. The Bay Area of the Pearl River Estuary
17. The 'One-hour traffic circle' in the Great Pearl River Delta city-region

network that connects the major cities within a one-hour trip or the formulation of a pioneer model of border management are some of the objectives suggested by the study.⁵⁸

- The Study on the Action Plan for the Bay Area of the Pearl River Estuary

In 2009, the governments of Guangdong, Hong Kong and Macao held the first 'Liaison and Coordinating Meeting on Jointly Taking Forward the Implementation of the Outline', and agreed to undertake the Study on the Action Plan for the Bay Area of the Pearl River Estuary, which is based on the Planning Study on the Coordinated Development of the Greater Pearl River Delta Townships and points out the strategic geographical location of the Bay Area of Pearl River Estuary as the core of the GPRD: "With rich resources, prosperous economy and good ecological value, its position and function [...] is highly regarded by the governments of Guangdong, Hong Kong and Macao." Aiming to promote livability and innovation, the plan wishes to "develop the Bay Area into the best 'Quality Living Area' of the GPRD." ⁵⁹

- The Regional Co-operation Plan on Building a Quality Living Area

This plan presents the GPRD region as a low-carbon, high-technology and low-pollution city cluster. It recommends strengthening regional cooperation on air and water quality control; on low-carbon development; on the use of sustainable energy and on climate change vigilance. ⁶⁰

One other series of agreements have been formulated between the governments of Guangdong and the MSAR. The most imperative one is the *Framework Agreement on Cooperation Between Guangdong and Macao*⁶¹ signed in March 2011.

- The Framework Agreement on Cooperation Between Guangdong and Macao

Towards the achievement of the guidelines promoted by the Outline of the Plan for the Reform and Development of the Pearl River Delta (2008-2020) and The Overall Development Plan of Hengqin New District, the Government of Guangdong Province and the MSAR Government came to agreement on their future cooperation. The document intends to delineate a "world famous travel and leisure destination", in which Macao should be a "world-class travel and leisure centre playing the leading role"; Zhuhai should prevail as an "international business and leisure travel hub" and Guangdong as "the bedrock". ⁶² Agreed between both parties, the key tasks within the implementation of the *Framework Agreement on Cooperation Between Guangdong and Macao* are: cooperation in the development of Hengqin island; promotion of the service trade liberalization; synergetic development of industries; improvement of infrastructure and convenient border crossing; social and public services exchange, and regional cooperation planning. ⁶³

⁵⁸ **Government Information Bureau (ed.)** - Macao yearbook 2010, 2010. p.503.

⁵⁸ CHONG, Un Kin - Considerações sobre a cooperação intergovernamental entre Macau e Zhuhai no âmbito da promoção do turismo regional. [Online]. p.989.

⁵⁹ Study on Action Plan for the Bay Area of the Pearl River Estuary. [Online].

⁶⁰ Hong Kong, Guangdong and Macao announce Regional Co-operation Plan on Building a Quality Living Area. [Online].

⁶¹ Quadro Geral da Política de Trânsito e Transportes Terrestres de Macau (2010-2020). [Online].

⁶² Ibidem, Positioning of Cooperation (Article 1).

⁶³ Ibidem, Major Tasks for 2012 within the implementation & Development Plan for the Western Bank of the Pearl River Estuary.









18. View over Hong Kong19. View over Macao20. View over Zhuhai21. View over Guangzhou

Within this agreement, three more regional plans were added to the list:

- The Development Plan for the Western Bank of the Pearl River Estuary

"The Parties shall formulate the plan for developing Macao and the western bank of the Pearl River Estuary, coordinate the development targets and strategies for the urban cluster in the district – including Macao, Zhuhai, Zhongshan and Jiangmen." According to the plan, Macao's advantages as a world-famous tourism and entertainment centre and its commercial service platform shall be capitalized in order to establish a superior urban area on the western bank of the Pearl River Estuary.

- The Macao-Zhuhai Synergetic Development Plan

"The Parties shall formulate the Macao-Zhuhai synergetic development plan; enhance coordination and planning related to urban planning, infrastructure, border crossing, public services, industrial layout and natural environment; jointly develop industries including tourism, exhibitions, cultural and creative industry, and education and training; facilitate connections among regional public services; enhance coordination in planning the new urban reclamation zone in Macao and the Cross Gate commercial zone in Zhuhai; jointly develop Hengqin; establish an international urban area with a decent natural environment, well-connected public services, support services for industries and convenient working and living environments in Zhuhai and Macao, with a view to increase momentum for the adequate diversification of Macao's economy."

- The Plan for Cooperation Between Macao and Nansha, Guangzhou

"The Parties shall exploit Guangzhou's advantages in being an established major city of China; enhance cooperation between Macao and Nansha (Guangzhou), in planning industrial development; promote cooperation with Macao in cultural and creative industries, port logistics industry and Chinese medicine industry; establish a commercial service centre, technological innovation centre and education and training base. The Parties shall jointly develop regional tourism and leisure projects, and devise routes for world-class cruise liners."

Indeed, the Framework Agreement on Cooperation Between Guangdong and Macao underlines various projects of relevance to this research: the continuous development of Hengqin New Area and the HKZMB; the future extension of the Macao LRTS to Hengqin and its connection with the Zhuhai Intercity Railway; the study of an eventual cross-river pedestrian tunnel linking Wanzai (Zhuhai) with Barra (Macao) and the revision of the plan for the tourism cooperation project.

However, as Dr. Anthony Yeh has stressed, regional cooperation implies coordination, thus it is imperative that all these plans can operate as a whole. Planning by itself is an act of coordinating diverse elements, but for the success of Macao and its neighbours, it is the

⁶⁵ Ibidem, Macao-Zhuhai Synergetic Development Plan (Chapter 6).

⁶⁶ Ibidem, The Plan for Cooperation Between Macao and Nansha, Guangzhou (Chapter 6).

coordination of such long roll of plans that must assume a higher level of inevitability.⁶⁷ This may not seem so hard to accomplish due to the overlapping of intentions publicized by these agreements, but one should not forget the fact that three different governmental authorities are involved in this venture.

The GPRD's urbanization has been described as a place of *exacerbated difference*⁶⁸ where diversity is taken as an element of development. Rather than a homogeny-oriented discourse, the region's dynamic activity is based on a system of specific values, which means the "function-positioning of cities" and the resulting gradual establishment of an "urban agglomeration with international competitiveness." Indisputably, the ability to accomplish the objectives described above will considerably depend on the capacity to put into practice a *constellation* diagram that may allow all parts to be "closely intertwined."

With the endorsement of these plans, Macao will reconnect with the PRD "in the belief that [...] the goal of complementing resources and building up of an international brand of regional tourism could be achieved."⁷¹ In cooperating with the larger and more dynamic economy of the GPRD, Macao should be given a better chance to pursue its programmed industrial diversification, leaving it less vulnerable to fluctuations in its gambling-oriented tourism market. In addition, this small territory will actually live the opportunity to elevate itself as a geographically strategic point of entry in the Western region of the GPRD (if a well planned transit system is implemented); while playing its unique specificity within the region: the precious legacy left by centuries of Portuguese occupation which is translated nowadays in a World Heritage famous attraction and a valuable business platform with the worldwide Portuguese-speaking countries.

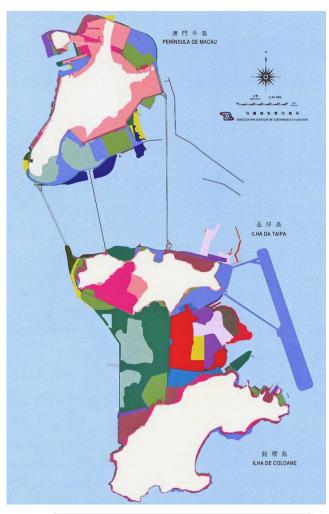
⁶⁷ Information stated by Dr. Anthony Yeh, Head of the Department of Urban Planning & Design of the Faculty of Architecture of the University of Hong Kong.

⁶⁸ CHUNG, Chuihua Judy; LEONG, Sze Tsung; INABA, Jeffrey; KOOLHAAS, Rem (eds.) - **Harvard Design School guide to shopping**, 2001

Promote the Sound Development of Urbanization (chapter 20) in The People's Republic of China 12th Five-Year Plan (2011-2016). [Online].

⁷⁰ CHENG, Joseph Y.S. (ed.) - **The Guangdong development model and its challenges**, 1998, p.85.

⁷¹ Guangdong-Hong Kong-Macau Tourism Cooperation Meeting held in Macau. [Online].



YEAR	MACAO PENINSULA	TAIPA	COLOANE	COTAI	TOTAL AREA (Km2)
1912	3.4	2.3	5.9		11.6
1936	5.2	2.6	6.0		13.8
1957	5.5	3.3	6.3		15.1
1986	5.8	3.7	7.1		16.6
1991	6.5	4.0	7.6		18.1
1996	7.7	5.8	7.8		21.3
1999	7.8	6.2	7.6	2.2	23.8
2000	8.5	6.2	7.6	3.1	25.4
2001	8.5	6.2	7.6	3.5	25.8
2002	8.5	6.2	7.6	4.5	26.8
2003	8.7	6.3	7.6	4.7	27.3
2004	8.8	6.4	7.6	4.7	27.5
2005	8.9	6.5	7.6	5.2	28.2
2006	9.3	6.5	7.6	5.2	28.6
2007	9.3	6.7	7.6	5.6	29.2
2008	9.3	6.7	7.6	5.6	29.2
2009	9.3	6.8	7.6	5.8	29.5
2010	9.3	6.8	7.6	6.0	29.7

22. Territorial evolution of Macao since 1912

Section 3

Macao's recent urban transfiguration

"Although the hills are not tall, the relative size of the place and the proximity of the hills made them become the important features of the townscape. The waters between Macao peninsula and Taipa island create a salient townscape of the city. Charming scenery of the beautiful bridges and the sunset view of the Praia Grande combined with the calmness of reflective waters help create a picturesque view of the city."⁷²

This might have been Macao's reality in 1999, but the city has experienced an amazing transfiguration over the last decade, especially regarding its waterfront and skyline.

In fact, Macao occupies now a much greater area than it did centuries ago, and despite having been spared to armed conflicts and natural disasters, it has undergone a remarkable urban transformation in the last century, worth of getting acquainted with for a better understanding of the upcoming urban operation.

Due to the limited land and natural reserves, Macao's urban development has been predominantly based on expansion by means of land reclamation, from the first Portuguese settlement in the 16th century until nowadays. Actually, Macao was originally an island and became a peninsula in the 17th century due to land reclamation, which demanded by then the construction of a barrier gate (the Gongei Border; Portuguese: Portas do Cerco) to set a border point between itself and the Chinese territory. The urban fabric of Macao was repeatedly adjusted in the following centuries, growing from a thin territory of 11.6 km² in 1912 to 23.8km² in 1999, doubling its land area.⁷³ In a first stage, the reclamation works were linked to the harbours development strategy, but soon became related with the need to accommodate more population and services, "actively seeking ways to sustain its economic role and position."

The volatile waterfront

"Tourists took a refreshing bath at Bela Vista early in the morning, enjoyed the pastel colours of the city buildings in the afternoon light and, before the gambling saloons opened, strolled on the well kept promenade of Praia Grande where military bands played. They found the time to visit the churches of the 'christian city' as well as the buddhist temples of the 'chinese city'."⁷⁵

As a colonial outpost, Macao's waterfront has always been under an inevitable attention, witnessing the incredible transformation of this once vulnerable trading post to an extravagant touristic city. In the past, each and every traveler arriving in Macao by sea would not miss the delightful allure of the Praia Grande Avenue. It became an important passenger terminal in 1757, when the Emperor Qianlong decreed that foreign fleets should appoint pilots and *compradors* in Macao before entering Guangdong for trade. The wide and elegant Praia Grande Avenue used to outline the old city and was home to the most important buildings, including the Governor's

⁷² FONG, Agnes Lam Iok (eds.) - **21st century Macau city planning guideline study**, 1999, p.14.

⁷³ **Brief History.** [Online].

⁷⁴ FENG, Chen: WANG, Haofeng; RAO, Xiaojun - **The Morphological Evolution Of Macau**. [Online].

⁷⁵ FORÊT, Philippe - **Globalizing Macau: The emotional costs of modernity**, 2006.



- 23. View over the Praia Grande Avenue (1920)
- 24. View over the NAPE reclaimed area (1995)
- 25. View over the NAPE reclaimed area (2010)
- 26. General view over the Nam Van Lake (2011)

Residence, the Supreme Court and Treasury, the Military Club, a few Consulates, and the Bela Vista Hotel.

Those days, the territory's economy was mainly based on its trading secular tradition, for which its harbour was of great importance. However, in the dawn of the 20th century, Macao's Inner Harbour became an obstacle to its development because it could not receive the new and larger steamers. Moreover, Hong Kong had become a major threat due to the establishment of trading houses headquarters there. The need to compete with Hong Kong led to the first important reclamation occurred in the first decades with the redevelopment of the Outer Harbour [Portuguese: Zona de Aterros do Porto Exterior - ZAPE], concluded in 1936. The Inner Harbour was kept functional just for smaller vessels, whereas the Outer Harbour's new location, on the southeast tip of the Macao Peninsula - facing Hong Kong -, was meant to strengthen its strategic position. Almost the full stretch of the eastern shoreline was reclaimed, including the eastern end of the Praia Grande, but it was only in the 1960's that the Outer Harbour would receive a boarding pier.

To the list of works undertaken to improve the territory's conditions until 1999, one can also add the expansion of the Ilha Verde (1923), which became connected to the peninsula; the reorganization of the Patane area or the Areia Preta land reclamation. Still, the most recent conspicuous projects, "shaping a sharp contrast to the compact urban fabric of the historical quarter," were probably the New Outer Harbour Reclamation Area and the Praia Grande Bay Rehabilitation Plan.

Both projects for the New Outer Harbour Reclamation Area and the Praia Grande Bay Rehabilitation were a result of public competitions promoted by the Portuguese Administration in the early 1980's. The New Outer Harbour Area project [Portuguese: Novos Aterros do Porto Exterior - NAPE, 1983-1984] was to be won by a multinational team composed by the architects Siza Vieira (1933 -) and Fernando Távora (1923 - 2005) from Portugal and the Palmer &Turner Group - a Hong Kong based planning office -, while the project meant to take place beside the Praia Grande Avenue went for a multidisciplinary team headed by the Portuguese architect Manuel Vicente (1934 -).⁷⁷

The New Outer Harbour Reclamation Area, firstly planned as an integrated residential area supported by social and public facilities, was based on new landfills separated from the city by water channels, hoping to preserve the existing shoreline, but technical problems made it impossible and the whole area is now connected to the peninsula. It was foreseen as "an investment ground for real estate development, which could liberate the old part of the city from the speculative forces".⁷⁸

On the other hand, the Praia Grande Avenue was enclosed and subdivided into two artificial basins – the Nanwan Lake and the Xiwan Lake. The project was envisioned to create a sense of place while giving the city an appealing new waterfront. In fact, the lakes were soon flanked with high-rise casinos and hotels on the eastern reclaimed area (NAPE), changing dramatically the secular skyline. Later, Manuel Vicente's office was also responsible for the

⁷⁷ In 1991, the decrees 68/91/M and 69/91/M approved the Regulations for the Plan of Urban Intervention (PIU) of the New Reclaimed Land of the Outer Harbor (NAPE), and the Regulations of the Urban Detail Plan of Reordering of Praia Grande Bay (Nam Wan) respectively.

⁷⁶ Idem.

⁷⁸ PINHEIRO, Francisco Vizeu; WAN, Penny - **Urban planning practices and scenarios for Macao development,** 2007. [Online].





27. The future Fishermen's Wharf renovation 28. The Grand Lisboa Casino-Hotel

redevelopment of the Nam Van square, where the Macau Tower Convention & Entertainment Centre was to be placed in 1998.

Show-off architecture: the liberalization effect

Besides the above mentioned actions, the emergent demand of hospitality, housing and service structures has changed the territory's image in its essence. The Praia Grande Avenue is no longer the focal point in the city's seafront. Since the early years of the 21st century it shares notoriety with the new constructions on the eastern reclaimed areas (ZAPE and NAPE).

Since 2004, several casinos have been built, all looking very alike with their Las Vegas *siblings*. The rapid pace of urbanization has created opportunities for architectural experimentation that is pushing the design of ambitious structures to new levels. In addition, the prior regulation on building's height limitations (1991) had not been renewed - for dubious reasons⁷⁹ - which lead to an accentuated rupture with the scale and figure of the older city. International models and shapes started to spread out and the waterfront of Macao peninsula immediately became known for its extravagant outline, stretching from the Penha Hill to the Guia Hill.

All of a sudden, the skyline of Macao was overtaken by a blistering, shouting symphony of assorted shapes, colours and sparkles, tremendously differing from its secular city centre. In the landfill areas one can find most of the Macao peninsula casinos and other landmark buildings, despite the previous Portuguese intentions.⁸⁰ The Wynn Macao, the Starworld Galaxy, the Sands Macao, the MGM Macao, the Bank of China or the Mandarin Oriental are amongst the most outstanding structures in the last decade's composition.

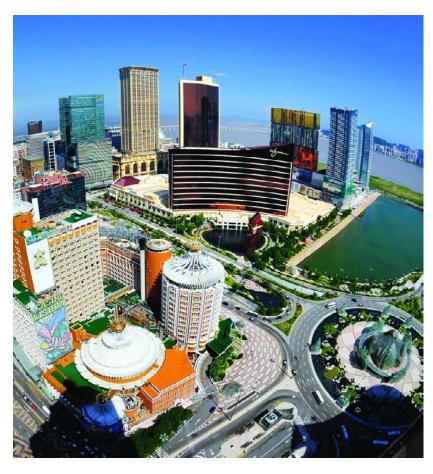
However, one of the most controversial projects was the Grand Lisboa, an extension to the STDM's Hotel & Casino Lisboa. Being the first five-star complex building, the Hotel Casino Lisboa is a milestone in the gaming architecture in Macao. It opened its doors in 1970 and it has been a icon since then. Its prominent image of a bright yellow birdcage had already been responsible for fostering Macao's first international reputation as the *Monte Carlo of the Orient*. The STDM had already asked permission for a 30-storey expansion building in the early 1990's but it was refused by the Portuguese administration. Yet, once the fashionable casinos odyssey was launched, the project was approved by the new Executive and an overbearing 58-storey high building opened imperiously in 2007.

Its glittering and flamboyant curves truly stand out, impossible to be missed from almost anywhere in the territory. It was designed by the Hong Kong-based office Dennis Lau & Ng Chun Man Architects & Engineers Ltd, and its shape, resembling a 261-metre-tall lotus flower standing on an oversized sphere, has been questioned too many times.

In the eastern side, the Macao Fisherman's Wharf, located on the waterfront west of the Outer Harbour Ferry Terminal, was the first theme-park to be built in Macao and was officially opened in 2006. As a theme-park it is mainly composed of *collage* buildings fashioned in the style of diverse world seaports, creating a delusional waterfront. Recently, it has been brought to public a plan to redevelop the site. Hotel and casino operator Macao Legend Development Ltd has

⁷⁹ "The lifting of height restrictions has been reportedly linked to the ex-Secretary for Transport and Public Works Ao Man Long before his arrest for the massive public works corruption scandal." *in* CHUNG, Thomas - **Valuing Heritage in Macau**. p.150.

⁸⁰ The decrees 68/91/M and 69/91/M were cancelled by the decree n.° 248/2006, published in 2006.





29. View over the Casinos at the NAPE area 30. View over the Ponte 16 Casino-Hotel at the Inner Harbour

merged with Macao Fisherman's Wharf International Investment Ltd. under the intention of renewing this 133,038m² entertainment complex: a series of redevelopment projects will be launched including a dinosaur museum, a yacht club and two more hotels. The project is scheduled to be completed by the end of 2015.

Unlike the Outer Harbour, construction in the Inner Harbour has been more restrained, probably due to its short distance to one of the UNESCO buffer zones and the fact that it is not located on the territory's frontline. However, one building in particular has been under criticism since its opening: the Ponte 16 resort. Its location, right at the point where one of Macao's most charismatic avenues (Almeida Ribeiro Avenue) meets the Inner Harbour waterfront has been a source of concern. In addition to its high altimetry, it blocks an important visual axis, creating a serious infringement to the UNESCO decrees.

Ironically, despite the euphoric momentum, Macao is not allowed to overlook its historical background. This results in a very atypical scenario because the city has to face the unique challenge of developing the hospitality and gambling infrastructures while paying attention to the heritage preservation question. Back in 1998, Domingos Tavares had already warned for the "nostalgic memory of a heritage whose usefulness and meaning [could] not resist the trends of the future development in South China."81

Moreover, 3.5km² are about to be reclaimed due to an audacious plan -The New Landfills Plan (explored in Chapter II) - already under revision, embracing five new areas along Macao's water's edge leaving Macao peninsula's figure undeniably on the verge of a huge metamorphosis.

The New Landfills Plan also extends to the northern shore of Taipa, which will be witnessing great changes on its waterfront as well. Taipa has also been rapidly developing, evolving from a relaxed holiday destination to a residential district, and recently to a gambling heaven. What's more, one may not miss out the opening of the Macao International Airport in 1995, only possible by means of a very overwhelming project and land reclamation once again, on the eastern shore of Taipa. Macao had finally conquered the third *border line* as until then the only two ways of entering Macao were through the harbours or through the Barrier Gate.

⁸¹ TAVARES, Domingos - As Cidades do Mar in CHEN, Arthur (ed.) - Culture of Metropolis in Macau, 1998. p.235.







31. View over the reclaimed area of Cotai
32. The GADA's plan for Cotai
33. The Las Vegas Sands Corporation's plan for the *Cotai Strip*

Planning Cotai: Asia's Las Vegas

The islands of Big Taipa and Small Taipa were connected by a large-scale landfill in 1957, therefore composing one island only. Later, in 1968, a strait isthmus was built between the islands of Taipa and Coloane. The 2.2km-long link was later paved definitely linking both islands. Even though this was seen as a daring action, it was just the first step in the transformation planned for this area. Throughout the 1990's a series of land reclamation works took place, giving shape to a new area of 5.8km² known as the Cotai.

Cotai was first planned by the Portuguese administration to be the territory's largest development area, mostly residential (housing 150.000 people) with a complete set of social facilities and transportation infrastructures to balance the overcrowded peninsula and foster intermodal connectivity with Zhuhai. However, as Castanheira Lourenço, Head of GADA⁸² [Portuguese: Gabinete para Apoio ao Desenvolvimento dos Aterros Taipa-Coloane] has said, this was "a flexible plan that [could] be adjusted as conditions [changed] in the region."

Actually, in 2001 a "new global planning of Cotai, predominantly aimed at tourism and amusement activities, commerce, logistic services, science and technology, industry, sports and recreational activities" was presented by the MSAR government. The initial plans were hold back and the area was eventually taken over by the gambling industry.

In the end, Cotai was not of much help in reducing the housing congestion, but it certainly constitutes the perfect milieu for a gambling heaven, definitely lessening the pressure over the very constraint peninsula and its heritage. One must not forget that Macao's gaming sector had been liberalized and these landfills were an obvious solution to an industry that, ironically, demands endless area.

This captivating *tabula rasa* area became a massive construction site for deluxe resorts, fashion hotels and mega casinos. One of the main enterprises taking the lead of Cotai's development is the Las Vegas Sands Corporation through its subsidiary, the Venetian Macau SA. When the company first knew of the new reclaimed area immediately thought on replicating the Las Vegas Strip there, naming the area as *Cotai Strip*⁸⁵. The "*Cotai Strip* is destined to become *Asia's Las Vegas*. By assembling a critical mass of world-class hotel brands, this development will reposition Macao as an international tourist and convention and exhibition destination," said Sheldon Adelson, Chairman of Las Vegas Sands Corp. ⁸⁶

The Venetian Macao casino, which opened its doors in August 2007, is actually just the tip of Las Vegas Sands plans for the *Cotai Strip*. The company is developing various projects, and has recently enhanced the *Cotai Strip* in April 2012 with one more world-class luxury complex - the Sands Cotai Central -, which includes the Sheraton Hotel, the Conrad Hotel and the Holyday Inn Hotel, as well as extra gaming area and the inevitable exclusive retail zone.

With no surprise, Macao has upgraded the "quality and scale of its gambling operations to the point that they rival those in Las Vegas. Indeed, the Las Vegas casinos have been responsible in

⁸² The GADA department was founded in 1992 and was held responsible for the urban planning of the new reclamation site of Cotai.

⁸³ Cotai City - the building of Macau's city future. [Online].

⁸⁴ Government of the MSAR - **Diário da Assembleia Legislativa de Macau.** (December 10, 2001). [translated by the author]

⁸⁵ Both *Cotai Strip* and *Asia's Las Vegas* are Las Vegas Sands Corporation's registered trademarks.

⁸⁶ COTAI Strip^(TM) Draws 'Dream Team' of International Hotel Brands, Leading Investors. [Online].



34. The Las Vegas Sands Corporation presents their plan for the *Cotai Strip* 35. View over the *Cotai Strip* (2012)

36. Construction works at the Cotai Strip (2008)

- 37. 'Variation colour study' for the Galaxy Macau Casino-Hotel
- 38. Construction site of the Galaxy Macau Casino-Hotel (2010)
 - 39. View over the Galaxy Macau Casino-Hotel (2012)

large part for transferring their model to Macao and for assisting in the transformation."⁸⁷ Galaxy Casino's Grand Waldo Hotel was the first casino to operate in Cotai, opening its doors in May 2006, but so far the most noteworthy structures on Cotai are the already mentioned Venetian Macao; the City of Dreams (Grand Hyatt Macao, Hard Rock Macao and Crown Towers Hotels), opened since June 2009 and owned by Melco PBL; and the Galaxy Casino's Galaxy Macau, in service since May 2011. In addition, there is also an increase in the MICE infrastructures since this is an ascending business in Macao.

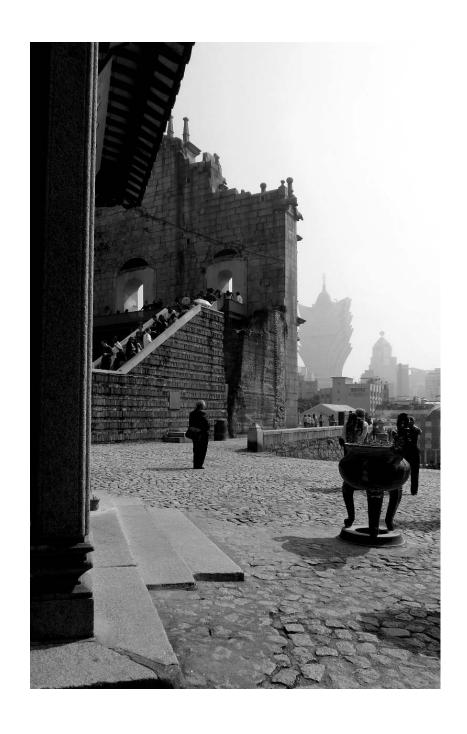
But other operators are planning to invest in Cotai. In fact, Wynn Resorts SA has recently received approval from the MSAR government for its Cotai concession near the City of Dreams complex. The new resort is supposed to open by the end of 2014 or early 2015. Likewise, MGM Resorts has also been granted a land concession as well as Stanley Ho's SJM, who expects its newly approved Cotai casino-resort project to be a success. On the other hand, The Venetian Macau SA, whose application for Cotai plots 7 and 8 has also been submitted, has already made public its plan of building a scaled-down replica of the Eiffel Tower, to be part of the second phase of Sands Cotai Central. Also, the Galaxy Macau has began its second-phase works, planning to open a series of international deluxe hotels in 2015.

The introduction of the Las Vegas model has surely brought economical relief to the city's economy. Huge investment has been pouring into the territory over the last decade. Even the 2008 world financial collapse, despite having been felt in Macao with many construction sites being closed down for a while, did not put its growth at risk. Neither did the 2006 public scandal of the arrest of Ao Man Long (1956 -), the first Secretary for Transport and Public Works of the MSAR, under corruption-related suspicions.⁸⁸

If "it took 75 years for Las Vegas to emerge as an international destination," like William Weidner, President of Las Vegas Sands Corp, has underlined, Macao is surely breaking one more record.

YEUNG, Yue-man; LEE, Joanna; Kee, Gordon - Hong Kong and Macao under Chinese Sovereignty: A Framing Discourse. [Online].
 Ao Man Long had allegedly offered preference in government projects and was later sentenced to a 29-year prison term for bribetaking and money laundering.

⁸⁹ COTAI Strip^(TM) Draws 'Dream Team' of International Hotel Brands, Leading Investors. [Online].



40. View over the St. Paul's Ruins area

Section 4

Managing the touristic city

Overall, Macao's flourishing tourism economy, based on the gambling activities and on its Historic Centre, has been attracting large foreign investment packed with exuberant projects and concepts. Evidently, such economic growth comes with ambitious plans to *keep the dice rolling*, and the territory has experienced consecutive and extreme construction works over the last decade. This, of course, is having immediate effect over the city's image and its vast waterfront - continuously *in motion* - renovating its morphology and its skyline at an astounding pace, while threatening its heritage.

However, and despite having been designated as the Asian gambling heaven, Macao has now to face fierce competition as other territories have come into play. Singapore has already stepped in with the opening of the Marina Sands Bay and South Korea has recently made public an ambitious city plan to be born next to the Incheon International Airport. The project in question is the creation of a gigantic 'tourism city' called 8City - after the Chinese lucky number 8 -, aimed at gambling and entertainment activities, mainly targeting the Chinese population, which represents Macao's greatest market. The city is expected to be 3 times the size of Macao and it is scheduled to open in 2030, despite the inevitable feasibility doubts. Whether it is just mere speculation or not, Macao should hurry the implementation of strategic measures and policies in response to maintain its competitiveness. Focusing solely on the gambling industry may absorb its human and land resources, imposing difficulties for a sustainable development. It is one more reason to foster economic diversification and it enhances once again the special place occupied by Macao's cultural heritage, one of a kind for sure.

Therefore, the government has assumed the importance of regulating the scale of the gaming industry by triggering the growth of associated integrated tourism sectors, namely the MICE sector, cultural and creative industries and Chinese traditional medicine, in order to generate a stronger appealing as a leisure destination. After a few years of rapid development, the MSAR government also found it was time to review and evaluate the present and future development of the gaming industry, thus in 2008, the Chief Executive announced that no new gaming licences would be granted in the near future, as a means of regulating the industry.

Encouraging visitors to stay longer than the average 1.5 day visit⁹⁰ will also be an important objective along with facilities improvement. The continuous surge in visitor arrivals has been driving the supporting facilities of Macao to an eventual crash: "We have five times the revenue of Vegas in terms of gambling but in Vegas there are 165,000 rooms and [in Macao] we only have 29,000," has alerted Costa Antunes, Head of the MGTO, 91 despite the large portions of land that have been reserved for the hospitality industry.

⁹⁰ SEGUÍ, Viviana - **Report argues for a "Tourism Master Plan" in order to make "Macau accessible to the world"**. [Online].

⁹¹ Idem.



41. Inside a Buddhist Temple of Macao

In sum, nowadays, while the rest of the world is still struggling to minimize the effects of the global crisis, Macao is already thinking ahead, trying to find ways to keep the economy flowing and the city evolving. Despite its development constraints, at least one ambition is for sure: "the MSAR Government (...) will develop itself by taking advantage of unprecedented opportunities to implement the great plan to build Macau as the World centre of leisure and tourism." ⁹²

Towards a comprehensive tourism master plan

"The way in which the urban environment itself becomes a commodity to be bought and sold [...] is now a well documented phenomenon. Moreover, there is now a fuller appreciation of the active participation by the state in the making and re-making of places as tourist objects." ⁹³

The conception of these large-scale projects as well as the cross-border infrastructures, consolidates the position of Macao within its regional surroundings. However, this surge of expansion requires management tools, utterly fundamental for both sustainable growth and spatial quality. Social changes demand major adjusted efforts regarding the planning and management of a city, ⁹⁴ thereby these projects must be compatible with the city's overall planning. New cityscape is on the way but yet, a urban master plan is lacking, as well as a tourism-oriented management outline.

Through its continuous involvement within the city's planning, the MGTO has audaciously acknowledged the value of the city as a *stage* where the touristic experience takes place, cast at large extent by the nature of its spatial context. It has become undeniable that Macao's new image is truly engaged with the framework of urban planning. Rather than promoting a certain image, the government is putting all efforts in actually creating a new cityscape for Macao.

If the first years of the 21st century were indeed of incredible growth for the city's tourism market, the era of territorial specialization has certainly gained more impetus with the PRC's proposed assignment for Macao in 2009.

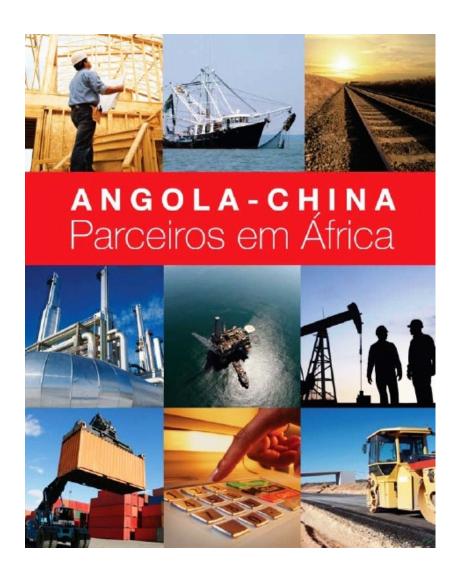
In November 2011, when presenting the governmental policy for 2012, the MSAR's Chief Executive, Chui Sai On, confirmed that the government would maximize the opportunities provided by the 12th Five Year National Plan and the Plan for the Reform and Development of the Pearl River Delta to build Macau into a world centre of tourism and leisure as well as a platform for the development of services and economies between China and the Portuguese-speaking countries, while actively participating in regional cooperation.

One important aspect here is Macao's historic and economic bond with a wide range of Portuguese-speaking countries. Lately, the PRC has understood this valuable advantage and has made of Macao a platform to reach fast-developing countries as Angola or Brazil. The implementation of the Forum for Economic and Commercial Cooperation between China and the

⁹² Government of the MSAR - Linhas de acção governativa para o ano financeiro de 2012, 2011. p.21. [translated by the author]

⁹³ WIRTH, Renee; FREESTONE, Robert -**Tourism, Heritage and Authenticity.** [Online].

⁹⁴ ASCHER, François - **Novos Princípios do Urbanismo & Novos Compromissos Urbanos**, 2010. p.20.



42. New business opportunities

Portuguese Speaking Countries⁹⁵ by the central government in 2003 was one of the major actions in the trade promotion between the PRC and Portuguese-speaking countries. Actually, Macao shares the language and even similarities in the legal system with many African and south-American nations. 96 Several economic agreements and business pacts have been signed. So far, the PRC has already established contacts with Angola, Brazil, East Timor, Mozambique and Portugal, amongst others, and the MSAR is still committed to "keep exploring, in conjunction with the provinces in the region of the Pan-Pearl River Delta and other southern provinces of mainland China, markets in Portuguese-speaking countries,"97 admittedly leveraging upon Macao's exclusive position as an unique business intermediary.

Following the presentation by Chui Sai On, the Secretary for Social Affairs and Culture, Cheong U, confirmed the territory's tourism-related main requirement: a comprehensive tourism master plan. Hong Kong has it (Hong Kong 2030), and so does Singapore (Singapore 21: Together We Make the Difference) or Sidney (Brand Sidney & Visit Sidney), just to name a few.

Meanwhile, the MGTO had already asked the Pacific Asia Travel Association [PATA]99 for proficient assistance in determining the future tourism policies. In 2011, PATA initiated a thorough analysis focused on destination management and branding. After a series of meetings with tourism industry entities, a visit to the new tourism developments and to the Henggin island, PATA's report - Towards a World Centre of Tourism and Leisure - gathered practical suggestions regarding Macao's branding. According to information released by the MGTO, here is the 10-point strategy blueprint proposed by PATA:

- "- Develop a comprehensive Macao Tourism Master Plan;
- Make Macao accessible to the world:
- Reposition of Macao as a world-class and diversified urban tourism destination;
- Identify and invest in market growth segments and a new marketing/branding strategy;
- Diversify Macao's tourism products;
- Improve tourism quality standards;
- Ensure adequate human resource capacity;
- Adopt a sustainable tourism development approach;
- Create a Destination Management Organization." 100

More importantly, it has recommended the immediate formulation of a comprehensive tourism master plan to assist Macao's transformation into a genuinely-recognized World Centre of Tourism and Leisure. Macao tourism officials have acknowledged the urgency of a master plan and have recently met with Australian tourism executives to find experienced advice. In fact, in early

⁹⁵ Portugal, Brazil, Cape Verde, Guinea Bissau, Angola, Mozambigue and East Timor.

⁹⁶ CHAN, Thomas - A Golden opportunity: How Macao can best play out its role in Portuguese and African relations. [Online].

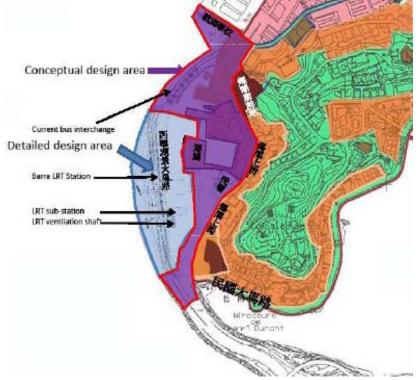
⁹⁷ Government of the MSAR - **Linhas de acção governativa para o ano financeiro de 2012**, 2011. p.23. [translated by the author]

⁹⁸ Macau Travel Talk (Jan ~ Feb 2012). [Online].

⁹⁹ Cf. http://www.pata.org/

¹⁰⁰ SEGUÍ, Viviana - Report argues for a "Tourism Master Plan" in order to make "Macau accessible to the world". [Online].





43. The MGTO's influence in the urban planning of Macao: the St Paul's Ruins area and the future Barra Station surrounding area

2012, the MGTO released the following three-tier planning scheme in line with the government's policy for the marketing of Macao:¹⁰¹

- **Medium to long-term global plan:** Outline a comprehensive development plan for the tourism industry and the tourism authority (MGTO);
- **Medium-term development plan:** Improve the existing tasks of MGTO regarding tourism promotion and management as well as tourism product development; actively collaborate with other governmental departments, providing advice on issues as the development between tourism and infrastructure, transport or customs clearance.
- Short-term individual action plans: Respond to the immediate needs of the tourism sector, conducting detached plans as Optimizations of Tourism Signage, Optimizations of Taxi Services or Optimizations of the Services of the Entry and Exits Points.

The role of tourism within Macao's urban planning

Looking forward, the tourism industry of Macao is facing both important opportunities and challenges but as promising as these circumstances may sound, becoming a world-class leisure city entails high-level requirements of which the MSAR government is well aware: "Overall, World Tourism and Leisure Centre means a destination of international renown, which develops according to the standards of the modern world," a city where "the elements of leisure should be integrated into the planning and urban development." Inevitably, Macao's marketing plan has to include improvements in urban planning, infrastructures and basic public services in order to surpass the city's resourcefulness.

Early this year, the MGTO revealed its participation in territorial issues and urban plans: 103

- Participation in the Urban Planning of the New Reclamation Area: In 2011, the MGTO participated actively in the related urban planning working meetings and provided suggestions on urban planning.
- Participation in the Urban Planning of Barra Surroundings: Due to the construction of the Light Rapid Transit, the Barra station had to be restructured in order to revitalize the development of the district. In 2011, the MGTO participated in cross-departmental meetings to express opinions regarding the Barra station, its surrounding facilities and the respective World Heritage historical area.
- Participation in The Planning of the Ruins of St. Paul's and the Surrounding Area: In order to promote the diversification of economy, the Government plans to create a World Heritage tourism network, with the starting point at the Ruins of St. Paul's, connecting highlights such as the Camões area, the St. Lazarus Church District, the Tap Seac Square or the Guia Hill. In 2011, MGTO expressed opinions on the overall planning and research study.
- Planning of the Border Gate and the Surrounding Area: The Border Gate area is expected to be the starting point for the new LRT system. In line with this objective, it was essential to conduct a research on the overall urban planning so as to gradually improve its function and

¹⁰¹ Presentation by Costa Antunes, the Director of MGTO, in Visitor arrivals to Macau exceeded 28 million last year. [Online].

¹⁰² Government of the MSAR - **Linhas de acção governativa para o ano financeiro de 2012**, 2011. p.152. [translated by the author]

Presentation by Costa Antunes, the Director of MGTO, in Visitor arrivals to Macau exceeded 28 million last year. [Online].



44. View over the Almeida Ribeiro Avenue

landscape. In 2011, MGTO participated in working groups and meetings, providing suggestions to improve the surrounding environment, the immigration procedures and the tourism facilities.

The weight of tourism in the city development has already raised an expected question: "To whom is Macao being developed for: its residents or the tourism-related targets?" ¹⁰⁴

Addressing the pressure of tourism on urban planning ought to be carefully thought-out. It is a central matter these days due to the immense effect that this industry exerts on the territory. One must not overlook the fact that cities require different planning according to their use. As it has been described by Richard Pié, the touristic city is generally defined by the way it takes the most advantage of the territory, thereby "the paradigms of traditional architecture and urbanism don't suit the demands of urban tourism development." In addition, Macao has a singular historical and morphological condition, which should be taken into consideration.

Towards a urban master plan and proper legislation

In Macao, the official speeches persistently favor urban renewal by means of large-scale interventions (the new landfills; the Hengqin New Area; the implementation of a rail line and the HKZM bridge). Still, it is vital to plan ahead in order to avoid urban collapse. Along with the territory's mentioned specificity, the future resources are merging into a unified package as a marketing technique for *selling* the city. It has been widely stressed that Macao should revitalize its image according to the *one destination, two cultures* prospect, setting the difference amongst rivaling touristic Asian cities.

In Malaysia, for instance, urban growth has been accompanied by a series of mega projects scattered across the metropolitan area and driven by new highways resulting in a short-term local jubilation. But this urban euphoric approach was soon put to sleep due to its poor integration within the whole city of Kuala Lumpur. ¹⁰⁶

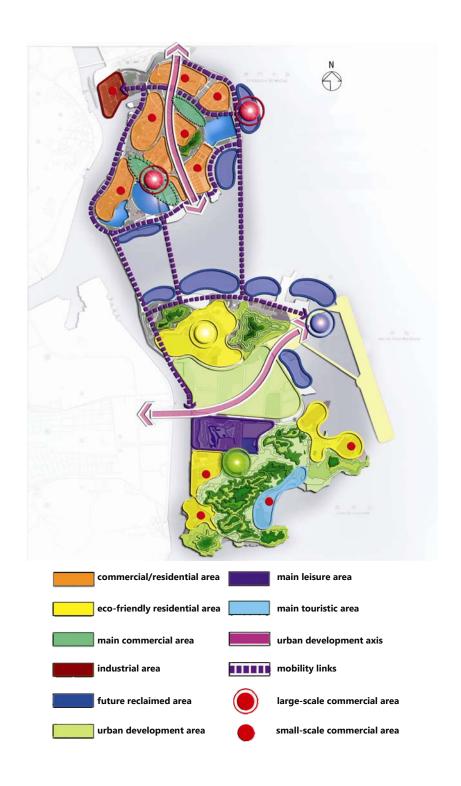
Indeed, it is up to Macao to define these primary instruments in a logical and integrated way. Proper legislation and a long-term vision for the territory are essential not only to keep up with the regional plans and national directives, but above all to guarantee a sustainable development of the territory by creating opportunities of future growth as well as assuming a perfect control of its urban and economic expansion, putting into practice the principle of *Macao people governing Macao*, as it was predetermined by the time of the handover to the PRC. It has become undeniable that Macao has an intricate relation with the neighbouring territory and that its success depends on its capacity to create valuable synergies with it, but it may not be viable to simply base its development model on such co-administered plans.

Despite the great array of intentions, the emergent prosperity that embraces the territory demands an accurate sense of long-term planning and urban regulations are essential to provide the most proper solutions, avoiding the misuse of its limited resources. In recent years, the MSAR

¹⁰⁴ José Pereira Coutinho apud FREITAS, Joana - **A cidade das promessas quebradas. [Online].** [translated by the author]

¹⁰⁵ Ricard Pié apud COSTA, Nuno - **Sea, sun, sand and residence**, 2011. p.79. [translated by the author]

¹⁰⁶ BOUCHON, Frederic; TUNG, Lisa; LIM, Tau Sian - "Sayangi Kuala Lumpur?" - Branding Strategies For Metropolitan Areas in Institute for Tourism Studies (ed.) - 3rd International Conference on Destination Branding and Marketing, 2009. p.84-98.



45. Diagram of the Conceptual Plan for the Urban Development of Macao (2008)

government has become more conscious of the need for legal support and has ordered a draft proposal for the desired legislation on urban planning, as shown in this brief timeline of the implementation of legislation on urban planning in Macao:

2008 -Commissioned by the MSAR government, the Strategic Research Centre for Sustainable Development (Portuguese: Centro de Estudos Estratégicos para o Desenvolvimento Sustentável) developed the *Conceptual Plan for the Urban Development of Macao*, listing the main urban problems of the territory and pointing out sustainable development strategies and potential action plans.¹⁰⁷

2009 -The report on *An approach to the establishment of a modern and scientific urban planning system* was released. The study, which had been ordered by the MSAR government in 2008, came up with six suggestions: optimization of the cooperation in regional planning; enhancement of both environmental protection and cultural heritage preservation; improvement of the legal framework to increase the transparency of the planning operations; optimization of the administrative system; creation of a system of professional qualification and encouragement of public participation.¹⁰⁸ The document also mentions the lack of urban planning legal framework, highlighting the urgent need of a cohesive regulatory structure that can manage all the upcoming urban challenges resultant from the enduring transformation that Macau has been facing.

-The Study on the urban planning system of Macao was ordered by the MSAR government to the Urban Development Research Centre of the Research Academy of Urban and Rural Planning of Guangdong province.

-The *Study on the urban design of Macao* was ordered by the MSAR government to the Urban Planning Institute of China.

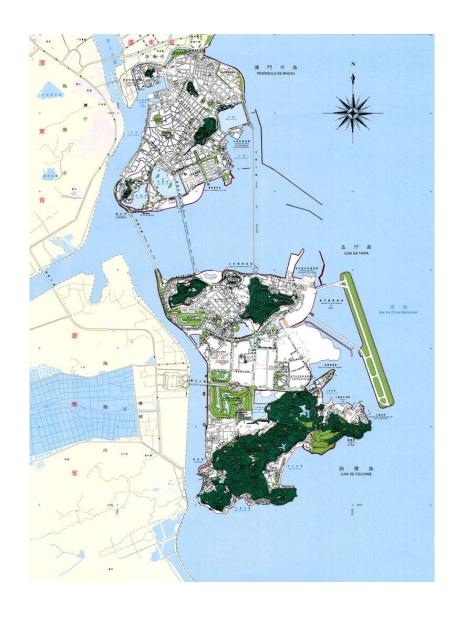
-The General framework of the conceptual planning of the Environmental Protection of Macao (2010-2020) was ordered, outlining strategies and environmental protection objectives for Macao so as to gradually implement an operational plan named Planning of the Environmental Protection of Macao (2010–2020), in which Macao was positioned as a low carbon area. This concept not only symbolizes the MSAR's commitment in relation to climate change, but also ensures that Macao does not intend to sacrifice the environment for economic growth. Based on foresight and advanced technologies, there should be an effort to minimize the negative impacts of urbanization, thus creating an environmental-friendly economic growth.

-The draft version of the *Legislation on Cultural Heritage Preservation* was concluded after 3 years of study and consultation for the formulation of a new legal framework adapted to the new status of Macao as a World Heritage site.

2010 -The *Study on the urban planning system of Macao* was released, suggesting a full planning system from the regional strategic vision to the detailed urban plan. The report calls attention to

¹⁰⁷ Documento de consulta sobre "Plano Conceptual para o Desenvolvimento Urbano de Macau. [Online].

Uma Abordagem sobre o Estabelecimento de um Sistema de Planeamento Urbano Moderno e Científico. [Online].



46. Location of the green areas of Macao

the fact that Macao, being a small territory, should be able to implement a rather straightforward planning system.

-The *Study on the urban design of Macao* was concluded. The document emphasizes the value of Macao's seafront proposing the preservation of its natural landscape as well as a balanced integration of the future construction within the territory's morphology. The utmost goal stated in the study is the establishment of a coastal recreational corridor of international level, "underscoring the particularities of the ecological environment of Macao" by "highlighting the coastal landscape that consists of the *hills, sea and city* [...] and preserving the visual landscape corridor to create a unique image of the Cultural Heritage and seaside town."

-After having carried out the *Study on the Land Use*, the MSAR government gave order for the preparation of the legislation on urban planning, based on the reports of the studies mentioned above.

2011 - Besides the promotion of the urban planning system, several studies and public consultations were undertaken on the improvement of detailed areas: the *Conceptual Urban Planning of the Border Gate* and surrounding areas; the *Urban Planning of the Ilha Verde Zone*; studies on the land use of the Inner Harbour area and on the redevelopment of the old districts; the *General Urban Design of the Barra Zone*; the *General Planning of the core zone of the World Heritage (St. Paul Ruins)*; the draft of the *Public Housing Development Strategy (2011-2020)*; the second phase of public consultation on the *General Policy of Transit and Land Transport (2010-2020)* and the conclusion of the light railway line and stations design of the first phase of the implementation of the Macao LRTS. ¹¹⁰

2012 -The *Planning of the Environmental Protection of Macao (2010–2020)* was released aiming to solve the existing or potential problems of environmental pollution in Macao.

The *Legislation on Cultural Heritage Preservation* was approved on 16th October, whereas the proposal for the *Legislation on the Urban Planning of Macao* was released for public discussion from 25th April to 8th June but still hasn't been submitted to official appreciation, despite being one of the key objectives for this year as stated in the government guidelines for 2012.¹¹¹

According to Wong Chan Tong, Head of the Office of the Secretary for Transport and Public Works, both regulations (*Legislation on Cultural Heritage Preservation* and *Legislation on the Urban Planning of Macao*) should be complementary. However, the apprehension caused by the UNESCO warnings in 2011 hastened the legislative process for the approval of the heritage safeguarding regulations. The organization underlined the urgent need of legal framework to keep the visual harmony and integration of the heritage in times of such accelerated construction in the

¹⁰⁹ O estudo do desenho urbano global de Macau publicado hoje propõe criar espaços públicos que levem em consideração a protecção e o desenvolvimento. [Online]. [translated by the author]

¹¹⁰ Government of the MSAR - Linhas de acção governativa para o ano financeiro de 2012, 2011. p.152.

¹¹¹ Idem

¹¹² CARVALHO, Raquel - **Lei do planeamento urbanístico este ano.** [Online].





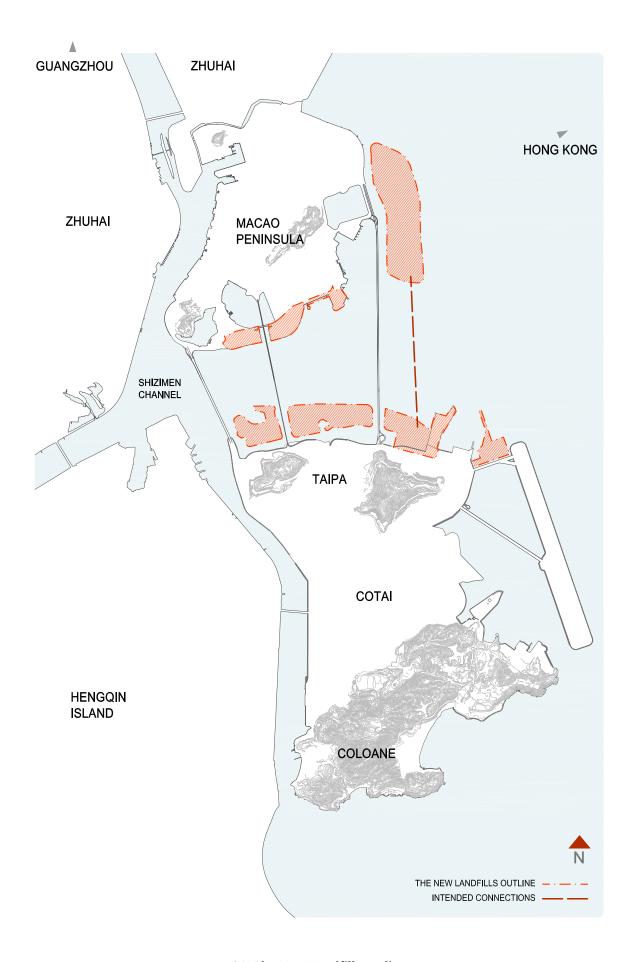
47. Views over Macao's dense urban fabric

territory, and the MSAR government was given orders to present its report on this matter to the UNESCO by February 2013.

On the other hand, the Legislation on the Urban Planning of Macao shall establish the fundamental principles of the urban planning management of Macao, fulfilling the principles of public interest, sustainable development, protection of natural resources and cultural heritage. It must also set up the hierarchy and implementation procedures of its regulatory plans: a master plan that shall identify "strategic zoning, namely the protection of the cultural heritage; tourist activities, industrial zones, residential, commercial and services areas", whereas the detail plans shall focus on "establishing rules that define in detail the purposes and intensity of land use, transport networks, public infrastructure and public spaces" always in accordance with the master plan guiding principles. Yet to be addressed is the lack of a urban planners accreditation system; the reduced number of professionals currently working within the respective governmental departments, and the increasing demand of both urban planning and architecture graduating institutes. 114

¹¹³ Ideias conceptuais do projecto de proposta de Lei do planeamento urbanístico e dos diplomas complementares: período de consulta: 25/04/2012 - 08/06/2012. [Online]. [translated by the author] ¹¹⁴ CAETANO, Maria - **Uma dezena de urbanistas para muitos planos**. [Online].

Chapter II



01. The New Landfills outline

SECTION 1 CITYSCAPE

Project The New Urban Landfills

Location Macao Special Administrative Region of the People's Republic of China

Promoter Government of the MSAR

Design Urban Planning Society of China and

China Academy of Urban Planning & Design

Dates 2006 - 2020

Status Preliminary planning

"The urban plan of the new landfills will contribute to the improvement of the quality of life of the population and to the conception of a completely new urban skyline and a recreational axis along the coastline of Macao, [...] accomplishing the positioning of the MSAR as an international centre for tourism and leisure." ¹¹⁵

In the last decade, Macao has been forced to cope with the immense requirements of the effervescent industry of tourism, the restless gambling tycoons and the preservation of its World Heritage. Furthermore, the resident population is expected to increase between 150 thousand and 207 thousand people until 2020 (in comparison with the year of 2009), which means that there is a hypothetical upcoming population of nearly 750 thousand. Despite the undeniable complexity implied in the articulation and management of these matters, the government is striving to promote a sustainable development.

As it has become usual in Macao, land reclamation was chosen as a response, but also as a chance to renew the territory's waterfront. The new landfills are deemed as a unique opportunity to generate a man-made scenery and create an intended first impression on the tourists arriving by sea, or to those simply travelling between Taipa and the peninsula.

Recreating the waterfront line is a common practice in areas constrained by limited jurisdictional territory. For a long time, the sea was the most important means of transportation both for people and goods between port cities such as Macao or Hong Kong. If "urban waterfronts with geographical advantages and historical values have the potential to provide a powerful impetus to the economic and social development of the cities," it is not surprising to notice that their reconstruction often implies major changes within their economy. Throughout Asia,

¹¹⁵ **Primeira fase de auscultação pública do plano director das novas zonas urbanas.** [Online]. [translated by the author]

Land, Public Works and Transport Bureau of the MSAR - Anteprojecto do plano director das novas zonas urbanas, 2011. p.6.

¹¹⁷ YU, Chen- Transformation of waterfront space in Asian cities: Macao, Hong Kong, Shanghai. [Online].

^{118 &}quot;Singapore, Hong Kong and Macao - In all three territories the rate of reclamation has been an index of the rate of economic development. Four phases of land reclamation are identified: (1) pre-1900: involved relatively unplanned and uncostly projects in shallow water and swamplands around the main focus of settlement; (2) 1900–1945: involved military projects outside the main settlement core; (3) 1945–1980: this phase of large-scale projects unconstrained by natural conditions because of advances in technology and high rate of reclamation was driven by rapid industrial and population growth; (4) 1980 to date: a period marked by large infrastructure projects designed to maintain and extend the status of the territories as world economic and commercial centres." in GLASER, R.; HABERZETTL, P.; WALSH, R. P. D. - Land Reclamation in Singapore, Hong Kong and Macao. [Online].





- 02. Shanghai's waterfront in 1991
- 03. Shanghai's waterfront in 2010
- 04. Hong Kong's waterfront in 1960
- 05. Hong Kong's waterfront in 2011

reclamation has been frequently carried out in several cities capriciously sprawling outwards or in need of a renovated image. Indeed, for many cities, the skyline is no less than a trademark.¹¹⁹

This urban restructuration strategy has become usual in territories undergoing deep *makeovers* in recent years such as Shanghai, Hong Kong, Singapore or Tokyo. Due to the intensive urban transformation required to cater for their own development, these cities have been rapidly expanding and generating new revitalized urban cores, sometimes neglecting their historical centres.

In fact, waterfront renewal can sometimes cause some apprehension when they are deeply associated with the city's fundamental *nature*, which is the case of Macao where social concern begun to arise long before its extravagant period. In the early 1980's, the Macao Cultural Institute was created with an eye on the preservation of the city's cultural and urban heritage. "The advent of reinforced concrete, a new technological era and, above all, economic growth" were feared to cause the loss of "the nostalgic charm that had characterized its specific physiognomy." Still, imposing structures have come into sight in Macao's skyline since the dawn of the 21st century and rapidly stood out as the city's new image. But if the last decade have not spared Macao's seashore from transformation, the following one will be of even larger transfiguration.

The New Landfills process

Unlike Hong Kong, Macao does not have jurisdiction over its coastal waters. Hence, in 2006 a request was made to the PRC's central government highlighting the need for more land. The preliminary study of the new landfills was then submitted for the consideration of the central power, but it was only in 2008 that the MSAR asked for authorization to go ahead with the new landfills plan. The central government gave its consent in 2009, allowing an increase of 12.3% to Macao's total area (3,5km²). The approval document, issued at a time of generalized financial difficulties, stated the value of the new urban areas as a way to "tackle the crisis and maintain a stable and relatively fast economic development promoting harmony and social stability." 121

Enthusiastic to start the new landfills process, the MSAR accelerated negotiations and in 2010 a cooperation agreement on the master plan for the new urban landfills was celebrated with both the Urban Planning Society of China and the China Academy of Urban Planning & Design (Shenzhen's office). The agreement comprised the conclusion of the preliminary sketch and the final master plan, and later, a report on the process of the master plan as well as a technical report. According to the signed document, the preliminary plan should focus on matters such as the spatial structure of public facilities, the development strategy of each lot, the general road network; the inclusion of green areas; a clear scheme of land uses, densities and its environmental impact. 122

¹¹⁹ CAMPANELLA, Thomas - The Concrete Dragon: China's urban revolution and what it means for the World, 2010. p.137.

TOSTÕES, Ana; DIAS, Pedro - Macau, China - Historical Background and Urbanism. [Online].

¹²¹ **Plano Director dos Novos Aterros Urbanos de Macau.** [Online]. [translated by the author]

¹²² Celebração do acordo respeitante ao Plano Director dos Novos Aterros Urbanos de Macau em meados do mês corrente (2010-10-14). [Online].





06. The future green corridor (the MSAR Government's schematic map)07. The future green corridor (the MSAR Government's intended waterfront use)

Even though it was agreed that along the way the master plan study should include the views and conclusions of experts and academics, research reports and public consultations, having the Urban Planning Society of China and the China Academy of Urban Planning & Design responsible for the development of the new neighbourhoods scheme left little space and opportunity for the local architects and planning teams interventions.

The three rounds of public consultations started in 2010 within the first phase (planning conception) of the procedure. In the first phase, the population was presented a series of graphic schemes and visual sketches, primarily pointing out the location of the new urban areas and the expectations, guidelines and constraints of each zone. It also became public the main goals of such endeavour regarding the transportation development strategy and the new environmental approach. As for the second public consultation (second phase - preliminary project), occurred in 2011, the government issued a document including two optional preliminary projects that had been formulated by the responsible teams, based on the public opinion, technical seminars and experts insights presented in the first consultation period. Likewise, the upcoming final master plan, which is due 2013 (third phase - project plan), is expected to live up to the in-depth consultation, exchange of views and overall public requests gathered during the preliminary phase.

The New Landfills conceptual plan

Macao has now a virtual total of 3.5 km² of new reclaimed land to be designed, constituting six new islets along its waterfront. The policy for the new landfills is mainly based on four principles:¹²³

- Regional integration and coordinated development Macao shall make the best use of its geographical advantages and the planning of the new landfills to create a new urban portal for the Shizimen Channel, in co-ordinance with its neighbour Zhuhai, enhancing the sustainable development and complementary network of cities in the GPRD. Macao shall seize this opportunity to prolong Zhuhai's promenade in order to meet the assigned goal of a renovated waterfront, for which a coastal green belt shall be the linking element.
- Mutual complement between the *old* and the new urban areas The *old* districts shall benefit from the new urbanization, as the population density will be reduced, thereby easing the pressure on the older neighbourhoods. The new landfills shall also complement their adjacent areas by means of an integrated planning, offering services that may be currently lacking. Acknowledging each area's needs will be, therefore, truly fundamental.
- **Improvement of transport infrastructures** In order to provide the most efficient connections between the new landfills and the *old* city, it is imperative to articulate the future rail route with the envisioned outer circles and road network.
- **MSAR's singularities** The new planning shall promote *bonding* between the old district's singularities and the new landfills attractiveness; enhance Macao's ancient territorial features (*hills, sea and town*) and minimize the urbanization effects on the World Heritage setting.

¹²³ Informações sobre a 1ª Fase de Auscultação Pública. [Online].



08. The New Landfills schematic plan

The new islands are mainly located along the southern and eastern coasts of the Macao peninsula (zones A and B) and also along the northern shore of Taipa (zones C, D and E1+E2). Once all reclamation works are finished, a new shoreline comprising more than 20km will have been shaped.

Zone <u>A</u>, the largest landfill, is located on the eastern tip of the Macau peninsula and has an approximate area of 138 hectares. To its west is the Outer Harbour Ferry Terminal and the Reservoir, and in the near future it will be facing one more artificial island at its east: the landing threshold of the HKZMB. Together they will set up the entrance for the Shizimen Channel. This new area is intended to be primarily commercial and residential, with a reinforcement of public facilities at the southern edge, creating a strong visual frontline. The planning scheme for zone A must comply with the height limitations imposed by aeronautics, but it also has to respect the safeguard of the Guia Lighthouse visual axis imposed by the UNESCO.

Adjacent to zone A, the zone **B** lies on the south of the Macao peninsula, with an approximated area of 47 hectares (a large portion of Zone B has already been reclaimed). This area contours the entire south shore of the Macao Peninsula connecting a series of landmarks, divided into two parts by the Governor Nobre de Carvalho Bridge. To its east are the Science Centre and the Cultural Centre, while the western part comprises the Macao Tower and the premises of the Nam Van Lake.

Road infrastructures, tourism and recreation, parks and public buildings are expected to be the highlight of zone B, although the new planning must respect a few landscape issues. Indeed, Zone B will be the central new face of Macao's peninsula but its skyline must be in accordance with the coastline landscape principles: the construction of a green corridor and the maintenance of a series of historic elements (the Penha Hill axis and the Nam Van Lake's panoramic view). In fact, zone B is the closest to the Historic Centre and is expected to give continuity to the city services while assuring a "completely new urban image." 124

On the opposite shore are the zones $\underline{\mathbf{C}}$ and $\underline{\mathbf{D}}$. Facing zone B, these areas will be allies on the Macao's waterfront beautification procedure. Zone C and D will comprise areas of 33 and 59 hectares respectively, separated by a water channel. These new landfills shall be primarily residential (taking advantage of the privileged views over the peninsula) and achieve eco-friendly conditions within their planning. In addition, they will reinforce the green costal corridor and zone D shall even delineate an internal leisure bay.

As for both zones E (**E1+E2**), these will support the International Airport area and the new ferry terminal of Taipa (Pac On Ferry Terminal), already under construction. With an area of 73 hectares, these landfills will mainly include public services as the new modal transportation hub and will be exempt from housing structures. Due to the airport's proximity, zones C, D and E will all face altimetry restrictions.

85

¹²⁴ Land, Public Works and Transport Bureau of the MSAR - **Anteprojecto do plano director das novas zonas urbanas**, 2011. p.39. [translated by the author]







09. Zone A: preliminary plan 1
10. Zone A: preliminary plan 2
11. Zone A: intended creation of new urban portal

The New Landfills preliminary plans

By the end of 2011, two preliminary plans (plan I and plan II) were made public.¹²⁵ Both plans were obedient to the landfills established position and their planning guidelines, but they suggest two different solutions for each island. According to the official document, the preliminary plan I was thought for 100 thousand people, allowing a lighter urban fabric. In fact, the preliminary plan I provides more public spaces and parks than the preliminary plan II in an effort to promote the desired green corridor and recreational waterfront. However, this outline proposes the relocation of the Outer Harbour Ferry Terminal (between zone A and B), which is a controversial suggestion that has been raising public discussion.

On the other hand, the preliminary plan II was envisioned to house 130 thousand people, resulting in a denser skyline. It maintains the primary idea of creating a modern image for the city but it approaches the transportation issue diversely. The Outer Harbour Ferry Terminal location is kept, while the primary outer circle takes a different layout. In general, these are the main variations between the plans, but a closer look may be of use to the whole project comprehension.

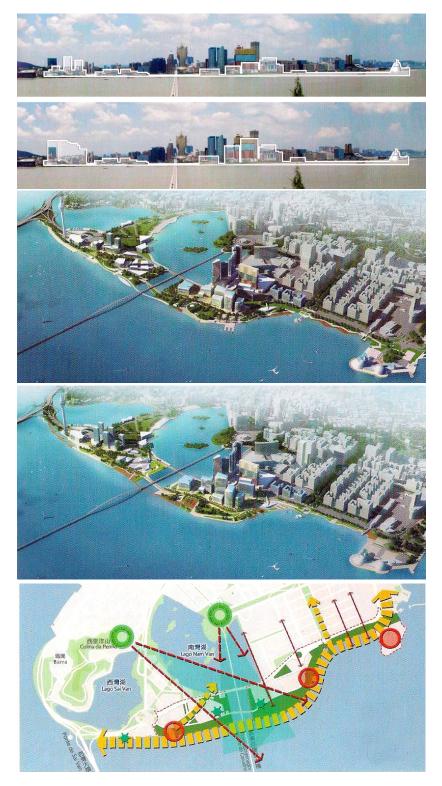
Zone A (Appendix A)

In the preliminary plan I, this area would have capacity to accommodate 60 thousand inhabitants, placed in the north and central sectors while the southern section would be for various industries, tourism and culture facilities. In terms of general mapping, zone A would continue the urban texture of the adjacent old neighbourhoods characterized by small and compact housing quarters. The west corridor would take the form of a leisure bay area, which would imply the transfer of the Outer Harbour Ferry Terminal. The external circulation would be on the eastern side and the rail route would circulate through the centre of the *island*.

At the preliminary plan II, zone A would have capacity to house 57 thousand inhabitants. The functional organization of the *island* would be identical to the preliminary plan I, but the circulation layout would be slightly different: the Outer Harbour Ferry Terminal would be kept in place, and the primary road would be on the central axis along with the rail line. The green corridor would remain at the centre in conjunction with the coastal belt to set up a coordinated system of green spaces. The general skyline would rise from south to north, and it would adopt the regular block typology, in an attempt to create a sense of modernity.

The preservation of the Guia Lighthouse visual alignment and the creation of a landmark frontline on the south coast are purposes of both plans, thus assuring a new urban portal, which in conjunction with zone B should generate a continuous corridor, optimizing the urban profile.

¹²⁵ Land, Public Works and Transport Bureau of the MSAR - **Anteprojecto do plano director das novas zonas urbanas**, 2011.



12. Zone B: Study of visual impact

- 13. Zone B: preliminary plan 1
- 14. Zone B: preliminary plan 2

15. Zone B: Visual alignments restrictions

Zone B (Appendix B)

The preliminary plan I does not account for residential use. Instead, it proposes an integrated series of public buildings, tourist and cultural facilities and coastal green spaces. According to the plan, the intensity of high-rise urbanization should be moderate in order to maintain the visual axis of the Penha Hill towards the sea.

On the contrary, the preliminary plan II would provide a mixed housing-commercial area for up to 6 thousand people. In addition, the *island* would be available for tourism and cultural facilities and green areas as it did in the preliminary plan I, designing a waterfront-oriented district. However, in the preliminary plan II, there would be a slightly higher development intensity on both eastern and western sides.

Both preliminary drafts emphasize the scenic connection between zone B and the peripheral areas, modeling the seafront skyline of the southern shore of the peninsula and forming a system of coastal recreation with various points of public interest. In addition, it is intended to make as much use as possible of the underground space in order to take full advantage of the available land. Even the primary outer ring is planned to be underground to reduce its influence and impact on the coastal promenade, thus encouraging pedestrian circulation.









16. Zones C, D, E: preliminary plan 1 17. Zones C, D, E: preliminary plan 2

18. Zones C, D, E: preliminary plan 1 (aerial view)

19. Zones C, D, E: preliminary plan 2 (aerial view)

Zones C, D and E (Appendix C)

The preliminary plan I proposes a planned population of 40 thousand for the zones C, D and E altogether.

According to the plan, there would be a green corridor running along the northern coast mixed with public facilities, pedestrian and bike paths. Zone C would be mainly residential, while zone D would add some commercial areas. Regular medium-sized blocks would punctuate the overall layout, shaping a rather flat skyline and allowing Taipa's contour to still appear in the background. Within the new neighbourhoods, a slow traffic scheme would be promoted, along with an arterial linking road at the centre and a few more bridges connecting the three zones. The integration of the light rail system would take place in zone E and at the eastern side of zone D.

On the other hand, the preliminary plan II takes into consideration a population of about 67 thousand inhabitants, resulting in a higher and denser skyline. A much more organic plan was laid out though, mixing housing structures with commercial use, green spaces and even a leisure bay located between Taipa and the zone D. The slow mobility system would remain similar to the one proposed on the preliminary plan I, but the integration of the light rail would be more efficient, taking place in all of the three zones.

The preliminary plans share a few common features: the goal of creating a low-carbon area; the restrictions applied to private vehicles in some areas in order to foster pedestrian circulation and the use of bicycles; the service-oriented use of zone E and the sequence of nodal points of parks and green areas, constituting an eco-friendly system.

Major concerns within the New Landfills plan

The new islands will stand out as an opportunity to implement a sustainable development strategy and promote Macao as a world-class tourism and leisure centre. One of the key objectives regarding a more sustainable growth is the encouragement of economic diversification, for which the new master plan shall assign considerable area for creative industries as well as for conference and exhibition infrastructures.

Indeed, Macao's economy has boomed in recent years with the opening of new casinos, but the future should not rely merely in the gambling activity, especially in these times of uncertain worldwide economy. Moreover, Macao is now one of the most densely populated cities in the world and still expecting a population increase in the upcoming years, which will significantly intensify the demand for public services and housing facilities.

That said, it comes with no surprise that projects related to the gaming industry will not be allowed in the new landfills master plan. Given the growing demand for subsidized housing, it was announced that at least 50% of the overall new land will be used for public parks, seaside promenades, transport infrastructures and other essential public facilities, whereas the other half will be for social housing and industry diversification projects.

The construction of an improved and eco-friendly transport system will result in a system of double outer circle and double axis, and even the new light rail system shall be integrated in the new landfills to uphold public transportation. Green areas will be intensified and better distributed. For this purpose it is intended that the green spaces shall outline a coastal green corridor, maintaining the visual connection between the hills and the sea, and providing continuity to





20. Aerial image of the New Landfills 21. The New Landfills model

Zhuhai's landscape. In fact, the conception of a "low carbon and eco-friendly" region has been an always present goal in regional planning studies like the already mentioned *Study on the Action Plan for the Bay Area of the Pearl River Estuary*, the *Planning Study on the Coordinated Development of the Greater Pearl River Delta Townships* and the *Regional Co-operation Plan on Building a Quality Living Area*. In the pursuit of these achievements, the recently released *Planning of the Environmental Protection of Macao (2010 – 2020)* is expected to assure the implementation of these environmental ordinances. ¹²⁶

One can probably say that the new landfills project is an updated version of the *city* that was once supposed to have been born in the Cotai area, but with one specific additional concern: the preservation of the visual relations between the historical centre and the coast, which shall remain untouchable, proving once again the restraining influence of the ever-present UNESCO.

Furthermore, when asked for more details on building height limits, the government said that it would only be possible to set those limits later, after a *scientific study*, though one specific solution seems to be already clear. Altimetry data regulations will be set in accordance with the Heritage Safeguarding Legislation, recently approved. The authorities want to make sure that "whoever is in the Penha Hill should at least be able to see the skyline of Taipa; likewise, from Taipa it must be possible to see the Penha Hill on the horizon."

However, within the impact brought to the city by the new landfills, the transportation network is the most discussed issue. The fourth link between Macao and Taipa and the Outer Harbour Ferry Terminal are the key items addressed.

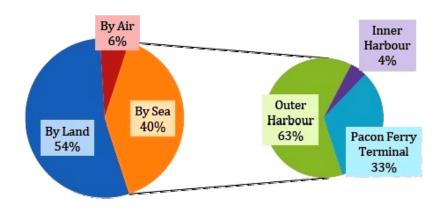
The link to Taipa and Coloane is guaranteed by three bridges at the time being: the Sai Van Bridge, the Governador Nobre de Carvalho Bridge and the Friendship Bridge. However, one more passage is being planned along with the new landfills development. This will be the fourth channel, part of the outer ring road system (double circle and dual-axis), and it shall connect zone E with zone A. The technical reports have suggested two possible structures for the link: a conventional bridge solution or, as an alternative option, an underwater tunnel.

According to the experts analysis, non-disruptive movement should be the primary requirement of the new passage. When using the bridge solution, the capacity of movement during high winds or typhoons can be reduced, whereas if one opts for the tunnel alternative there will be no restriction whatsoever. Engineering specifications would be quite complex either for the bridge or the tunnel option due to the airport proximity and the maritime pathway. In regard to visual impact, the tunnel would obviously have a more humble presence, while the bridge would have by far a greater influence on the landscape of the surrounding area. As it has been assumed, it is the government will to create a new image for the territory, thus a new landmark could be much appreciated.

However, it has been reported that both the political fraction and the technical experts are prone to adopt the tunnel solution (so does the population, according to the recent public consultation), as it is indeed a solution that can be developed with greater flexibility, allowing

¹²⁶ Planeamento de Protecção Ambiental de Macao (2010-2020). [Online].

¹²⁷ Lao Iong, Head of the Urban Planning Department of the Land, Public Works and Transport Bureau, apud CARVALHO, Raquel - **Terminal marítimo deve ficar no Porto Exterior.** [Online]. [translated by the author]





22. Diagram of visitors arrival by entry point in 2012 23. The $4^{\rm th}$ passage and the 'double outer circle and double axis' scheme

continuous movement. In fact, the Government has already ordered studies on a tunnel engineering technical details and eventual financing means.¹²⁸

Whatever solution is adopted, truth is that the new link will have a major importance in the whole transportation layout. It will not only define the outer ring, but it will also guarantee the connection with the HKZMB, coping with the traffic load expected in the future.

The fate of the Outer Harbour Ferry Terminal, located west of zone A, has also deserved much attention during the second phase of the public hearing (the majority would keep the current location). The hypothetical transfer of the ferry terminal - as suggested by the preliminary plan I - would constitute a structural change in the city's transportation system. One must not forget that this is the main link between Macao and Hong Kong nowadays. Therefore, the Government will propose the maintenance of the ferry terminal in its present location - as it is planned in the preliminary draft II -, which means that there will be no space left for any structure of the kind in the new landfills. The city is relying in the HKZMB and in the Pac On Ferry Terminal (Taipa) to serve as alternatives to the use of the Outer Harbour Ferry Terminal. It is expected that when both structures become fully operational - the Pac On ferry terminal is due 2013 whereas the HKZMB is due 2016 -, they will likely alleviate the traffic flow on the Outer Harbour Ferry Terminal.

However, in 2011, Macao welcomed 28 million tourists (of which around 16 million have entered the territory trough the Outer Harbour Ferry Terminal), and the number is expected to keep increasing in the following years due to economic and touristic development. If, against all odds, traffic increases in the Outer Harbor Ferry Terminal, it will be a difficult task to extend the building. To its west is the Fisherman's Wharf and it will be enclosed at its east by the new zone A, reducing any change of a future augmentation.

The real-estate market speculation is also a social matter worth of attention. As a result of the territory's social-economic condition, there has been an unusual escalade on the housing prices in the last few years. Inevitably, the government has been asked to intervene and to prevent this from happening in the future reclaimed areas. Indeed, the auction of land in the new landfills has been a concern. Many have pointed out the urgent need for the government to set a reasonable housing price, especially during this time of inflation.

Regarding this matter, the government has assured that it hasn't granted any piece of land yet. "The authorities will follow all the regulations and the relevant laws, giving priority to public tenders when the time comes to grant any piece of land", has stated a government spokesperson. 129

Uncertain, however, continues the outcome of the urban developments on the landfills adjacent to the Macau Tower and the new zone B. The area was reclaimed in 1992 and the Portuguese administration granted a few lots to private owners, but none of the submitted plans were ever approved. The new governance has taken a more cautious attitude and has announced the importance of such area: "Only after we have an urban plan will we handle this matter. This

¹²⁸ According to Lao Iong, Head of the Urban Planning Department of the Land, Public Works and Transport Bureau, "the competent authorities are already doing engineering studies and construction calendar" apud CARVALHO, Raquel - Terminal marítimo deve ficar no Porto Exterior. [Online]. [translated by the author]

¹²⁹ Macao's land area to become larger. [Online].







- 24. The STDM's proposed 'Harbour Mile' project
- 25. Current view over Taipa northern shore [east side]
- 26. Current view over Taipa northern shore [west side]

area is quite close to the new landfills and there are many aspects to be taken into consideration," said Lao Iong from the Secretariat for Transport and Public Works.

Definitely, reclaiming land from the sea is not a novelty for Macao, but these new island-shaped landfills are causing some apprehension. For Dr. Roger Chan, excessive land reclamation may be a risky operation as it may endangered what he sees as Macao's most valuable asset: its waterfront.¹³¹ Also, Some recall the original project for the NAPE to support their critics. In fact, the first concept of NAPE revealed the use of water channels but it soon turned up to be impracticable. Apparently, there was not enough water flow to maintain the channels clear and pleasant, and they were enclosed in the meantime. Likewise, sedimentation can become a hinder, which prompts the alternative of artificial lakes instead (such as the Nam Van lake and the Sai Van lake).¹³²

For now, the government is striving to launch the third phase of public consultation as soon as possible, planning to have a final master plan next year, which may precede the approval of the Urban Planning Legislation. Despite the eventual consequences, Lao Iong has ensured that the release of the upcoming master plan will not be delayed as this mega project "constitutes a reserve of land for sustainable development in the next 20 to 30 years." ¹³³

The construction schedule is still uncertain. So far, priority has been given to the zone A because it will be the link between Macao and the artificial island of the HKZMB. The public tender for the execution of the landfill and construction of the dike for zone A has already taken place. A total of eight proposals were registered and the Government is likely to make his choice soon, as the preparatory works are supposed to be concluded by 2016, when the new bridge is expected to be fully operational.

Regardless of *agenda* matters, the new waterfront experience should be truly appealing in order to captivate the community once again. For that to be possible, it should be conceived as an integral part of the existing city and contribute to its vitality, aspiring to create a sense of place within it. The new landfills must be understood as an opportunity to reassemble the territory and its ancient connection with the shoreline, regenerating the city's former identity, instead of merely commodifying it.

Rescuing Macao's former bond with the waterfront, thus recreating the city's image, is as important as reconnecting with the GPRD, assuming a distinguished position within this broader regional system. The riverside corridor may be of help if it actually takes the form of a strong linkage from Zhuhai's eastern shore to the Hengqin island located west of Macao. Bearing in mind that the "development of the new urban areas is a question that not only matters to Macao, but also to the whole Pearl River Delta region," ¹³⁴ the government has yet indeed many issues to take into consideration in order to successfully manage this urban operation.

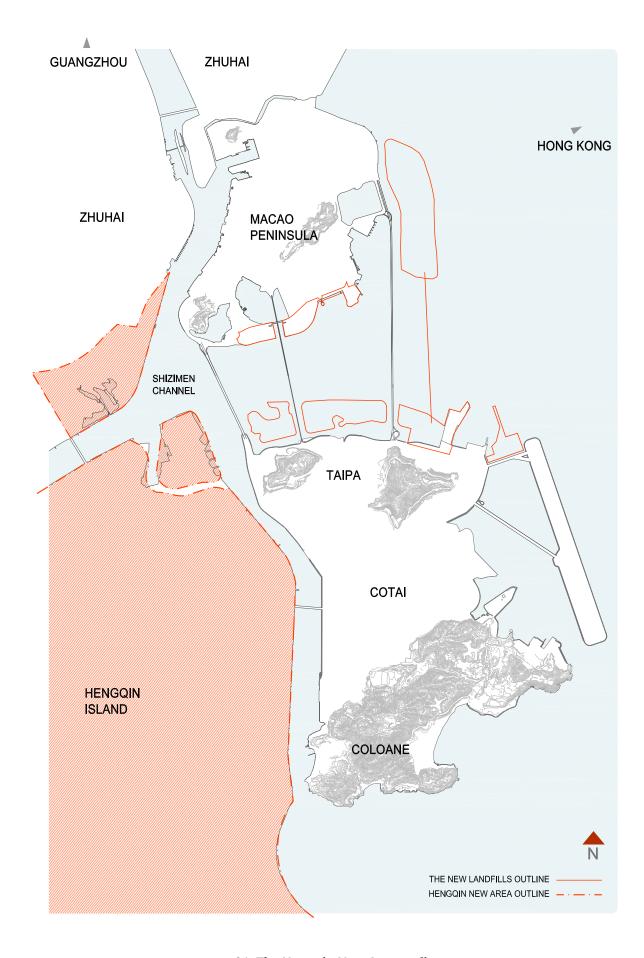
¹³⁰ AMARO, Vanessa - **Uns falam, outros decidem.** [Online]. [translated by the author]

¹³¹ Information provided by Dr. Roger K. Chan, Associate Professor of the Department of Urban Planning & Design of the Faculty of Architecture of the University of Hong Kong.

¹³² As ilhas artificiais vão ser "um disparate". [Online].

¹³³ Land, Public Works and Transport Bureau of the MSAR - **Anteprojecto do plano director das novas zonas urbanas**, 2011. p.3. [translated by the author]

¹³⁴ Ibidem, p.11. [translated by the author]



01. The Hengqin New Area outline

SECTION 2 REGIONAL INTERLOCKING

Project Hengqin New Area (including Shizimen Central Business District)

Location Hengqin island, Zhuhai, People's Republic of China

Promoter PRC's "Plan for the Reform and Development of the Pearl River Delta" Commission

Zhuhai Grand Hengqin Investment Company Ltd

Design Conceptual master plan by AMA Architecture (France)

Dates 2006 - 2020

Status Ongoing construction

"The Hengqin New Area will be a new platform to promote closer cooperation between Guangdong, Hong Kong and Macao. It's also a new highlight of the western bank area of the Pearl River estuary." 135

According to a recent report from the United Nations, "*megacities* are merging to form vast *megaregions*" causing an often called *endless city* effect that has been identified as "one of the most significant developments - and problems - in the way people will live and economies will grow in the next 50 years."

Moreover, from a wide display of examples in Japan (the conurbation Nagoya-Osaka-Kyoto-Kobe is expected to grow to 60 million people by 2015); Brazil (the Rio de Janeiro-São Paulo megaregion accommodates 43 million people) or West Africa (600km of urbanization linking Nigeria, Benin, Togo and Ghana), the report points out the Hong Kong-Shenzhen-Guangzhou as the world's current largest *megaregion*, "home to about 120 million people." Undoubtedly, a conglomeration of rapidly expanding cities is emerging in the GRPD. Linking these expanding cities are new infrastructures, industries, services, property developments and other large-scale collaborative projects as the Hengqin New Area.

It is truly difficult to attain an accurate number for this region's population, but it is indisputable that the mentioned cities above are "pushing beyond their limits" and giving birth to a massive conurbation linked both physically and economically. Together, they can push economic growth, but these phenomena can also lead to an uneven urban sprawl, "rising inequalities and urban unrest", the report notices.

Still, the MSAR government wants to make the most of regional cooperation in order to be included in such vast urban area, with joint promotion of major infrastructure projects being one of the priorities to strengthen the region's cohesion. The development of the service sector, such as international logistics, convention and exhibition venues, culture and tourism, is one of the main achievements, aiming to congregate a renowned touristic offer in alliance with the

¹³⁵ Wan Qingliang, Vice-Governor of Guangdong, apud HONG, Chen - Transformation begins on Hengqin Island. [Online].

State of the World's Cities 2010/2011 - Cities for All: Bridging the Urban Divide. [Online].





02. Current view over the Hengqin island03. Current aerial view of the Hengqin island

neighbouring cities. Alongside the progress of Hengqin, Macao will have the much-needed space to develop new industries and services, diversifying its asymmetrical economy.

Indeed, one of Macao's key partners is Zhuhai, the city next door. Its proximity to Macau and Hong Kong has presented wonderful opportunities for Zhuhai to prosper, and the city has been rapidly growing. Indeed, the liberalization of Macao's gaming sector, the increased value of its economy, the implementation of CEPA and the inscription of Macao's Historic Centre in the UNESCO's World Heritage List have defined an intangible capital for the economic development of the entire region.

However, if "the rise of Zhuhai is directly associated with Macao's position as a free port", Macao's prosperity also owes greatly to the export-oriented economy in the Zhuhai Special Economic Zone. In the future, Macao will have more motifs to enjoy Zhuhai's alliance as the concept of *end-welding*¹³⁷ is actually becoming a reality with both sides making use of each other's resources to build a comprehensive tourism base. Together, Zhuhai and Macao are trying to put forward a new model of regional cooperation of mutual benefit: the cross-border industrial park; the implementation of a panoramic seashore and the cooperation over the Hengqin New Area arrangement.

The Hengqin New Area process

The island of Hengqin is located south of Zhuhai and west of Macao. With an area of 106.46km², it is now the largest among the 146 islands of Zhuhai, even though it was formerly divided into 2+1 islands (Xiao Hengqin [Portuguese: *D. João*] and Da Hengqin [Portuguese: *Montanha*]) which are easily perceived in Hengqin's landscape. Both islands were linked by a landfill, while a third standalone island (Wanzai [Portuguese: Lapa]) became a part of the Zhuhai's peninsula, also due to embankments. Although it is nearly three times the size of Macao, it is not very populated (less than 7.000 residents)¹³⁸ because it is predominantly rural.

Its spectacular landscapes, natural vegetation, wide bays, beaches and fresh air, make it the perfect *tabula rasa* for the birth of a completely new urban investment. Without a doubt, this sleepy countryside community is about to face a tremendous urbanization process, mirroring the booming *Cotai Strip*, located just across the Zhujiang river.

In fact, the Hengqin island has been waiting for this revolution since the 1980's, when Macao and Zhuhai discussed the possibility of jointly constructing an airport there. The plan did not go ahead, but in 1992 the open-economy zone of Hengqin was established and designated by the Guangdong province as an area to be explored, anticipating Hengqin's potential. Later, in 1999, the Zhuhai government announced its plan of exploiting the island for recreational purposes, following a research report on the implementation of a *special international tourist area* on Hengqin island.

¹³⁷ RAMOS, Rufino (ed.) - **Macau and its neighbours toward the 21st century,** 1998. p.196.

According to the Overall Development Plan of Hengqin, the island will have a population of 120.000 by 2015 and 280.000 by 2020.
 HONG, Li - A exploração sustentável da cooperação regional entre Macau e Zhuhai: o caso da exploração da Ilha de Hengqin. [Online].

¹⁴⁰ Ibidem, p. 681.



04. 1912 Map of Macao and the nearby islands of Xiao Hengqin, Da Hengqin and Wanzai

It was only after Macao's handover that both governments of Guangdong and Macao reached an agreement on the future of Hengqin island (2000). The Lotus Flower Bridge border post, which connects Hengqin to Taipa, formally entered into operation and several debates were held about the desired joint venture until 2006, when the government of Guangdong province approved the *Overall Planning Framework for exploration and construction of Hengqin island*, envisioning the island as a regional cooperation field which should involve both SARs in the planning process.

In the Outline of the Plan for Reform & Development of the Pearl River Delta, issued by the end of 2008, the Hengqin New Area was already mentioned as a key project, but it was only in 2009 that the Overall Development Plan for Hengqin New Area received official approval from the central government and joined the list of special economic districts, side by side with Pudong Area in Shanghai (PRC's mainland) and Binhai Area in Tianjin (PRC's mainland). This decision really determined the significance of Hengqin island on the whole development strategy for the GPRD and enhanced the regional cooperation under the one country, two systems policy. The preliminary works were then immediately instigated.

This ambitious plan soon became a dear one for the central government. At the 3rd Session of the 11th National People's Congress in 2010, the Premier Wen Jiabao urged "the construction of the Hong Kong-Zhuhai-Macau Bridge and other major cross-boundary infrastructure projects as the development of Zhuhai's Hengqin island" as a way to "increase economic ties between the mainland and the SARs."¹⁴¹

The Hengqin New Area project aims at transforming the island into an internationally integrated and ecologically innovative showcase. As a pilot project themed at cooperation, it is expected to make breakthroughs in terms of border arrangements, financial cooperation, land management and social governance.

According to the overall plan, the island will also focus on technological research, high-tech industries, MICE, tourism and leisure, logistics and trade, cultural and creative activities and business services. Moreover, it is supposed to be an "eco-island" providing a sustainable way of living through technical innovation and a balanced management of its natural resources. In fact, 78.000km² out of its 106.46km² will be either spared from construction or limited to minor human intervention, as confirmed by Zhao Zhenwu, Deputy Director of the Division of Work of the Administrative Committee for the Hengqin New Area. 142

Hengqin's development will be guided by the principles of *facing the whole world* prioritizing Hong Kong and Macau, government domination and market operation. To establish the administration model, executive committees will act as administrative entities while development operating companies will be seen as management entities responsible for foreign investments and construction.

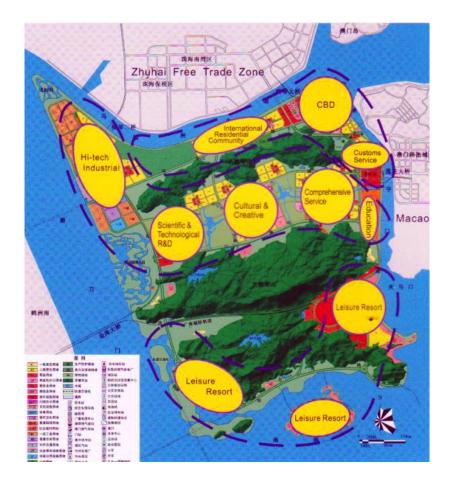
Investments from the world's top corporations will be targeted, as the island is expected to take advantage of Hong Kong's financial commerce experience, as well as Macao's connections

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¹⁴¹ Idem. [translated by the author]

O' Neill, Mark - **De ilha recôndita a centro mundial.** [Online].





05. Future skyline of the Hengqin island06. The Hengqin island zoning scheme

with up-rising markets such as Brazil or Angola. ¹⁴³ In fact, Hengqin hopes to overcome some of the current challenges when doing business with the PRC. Companies operating in the priority sectors (creative industries, tourism, traditional Chinese medicine, financial services, MICE, high-tech businesses and environmental protection) will be granted special benefits. The profit tax will be 15% on Hengqin island as opposed to the 25% tax in the mainland (16.5% in Hong Kong and 12% in Macao) and, in addition, overseas goods shipped to Hengqin island will be exempt from import duties, unless they are transported to Zhuhai or elsewhere in the national territory. ¹⁴⁴

If globalization stands out from the previous periods of economic internationalization because it no longer consists simply on the movement of men, capital or goods, but especially for making way to international joint ventures and widespread mobility, ¹⁴⁵ the Hengqin New Area is successfully proving to be a global stage.

What's more, Hengqin's future is being jointly planned by various overseas offices, international companies and mainland institutes. Due to the vast roll of design and consultancy firms working on the whole project, only the most influential ones within the overall plan will be mentioned.

The Hengqin New Area regulatory plan

According to the *Overall Development Plan for Hengqin New Area*, there will be two ecological green cores consisting of Big Hengqin Mountain (Da Hengqin island) and Small Hengqin Mountain (Xiao Hengqin island) and the rest of the island (in a total of 86.03km²) will be zoned into three large sections and ten distinct zones: the **Business Service Section**, located east and north of Small Hengqin Mountain, shall feature the **Port Service Zone**, the **Central Business Zone** and the **International Residential Community Zone** with a world-class living environment; the **Leisure Tourism Section**, located south of Big Hengqin Mountain, shall encompass the **Leisure & Holiday Resort Zone** (a series of leisure facilities such as renowned resorts, creative industries and amusement parks), and the **Ecological Scenery Zone** (Hengqin Mountain Forest and Erjing Bay Wetland Park); and the **Scientific & Educational R&D Section**, located between Big and Small Hengqin mountains, shall contain an **Educational Zone**, a **Comprehensive Service Zone** offering a wide range of facilities from administrative offices to business and commercial areas, a **Cultural and Creative Zone**, a **Scientific and Technological Zone** as well as a **High-tech Industrial Zone**.

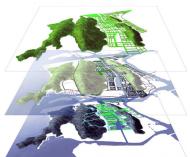
In 2010, an international competition was commissioned to select the design for the waterfront landscaping, the road system and the major structures of Hengqin New Area. In accordance with the *Hengqin Overall Development Plan*, the waterfront landscaping was asked to match the ecological features of the island creating a green promenade along the riverside, and a slow traffic system was required to allow pedestrians and bicyclers to circle at ease. As for the key structures, these should not block the mountains views, but still create an elegant skyline.

¹⁴³ "We are targeting investments from the world's top 500 corporations. It will be a new stage for professionals from Hong Kong and Macao and the government will surely raise the threshold for talent to ensure the quality of human resources on the island" said Deng You, Deputy Secretary of the CPC Hengqin New Area, apud **Hengqin new mega economic centre.** [Online].

Hengqin Island. [Online].
 ASCHER, François - Novos Princípios do Urbanismo & Novos Compromissos Urbanos, 2010. p.41.

¹⁴⁶ Regulatory Plan of Hengqin New Area. [Online].







07. Aerial view of the future urbanization of the Hengqin island 08. AMA's conceptual diagram 09. AMA's proposal for the Hengqin island

From the fifty-one submitted proposals, six world-class offices reached the final shortlist: AMA Architecture (France); NITA Design Group (the Netherlands); SWA Group (United States of America); Scott Wilson Group PLC (Great Britain); COX Group (Australia) and the Beijing Tsinghua Urban Planning & Design Institute (PRC).

The first prize went to AMA's proposal, which was keen on highlighting the natural landscape of the island. Nonetheless, the final design would also incorporate elements from both NITA Design Group (2nd prize) and Cox Group (3rd prize) proposals.

AMA's proposal, entitled *La mémoire de l'eau* (English: *The memory of water*), honored the natural heritage of the Hengqin island by taking into consideration its secular scenery and uniqueness with a layout that relied "on its original structure of farmland and water grid to retain historical features." Concerned that the ambition of urban development could endanger Hengqin's heritage and identity, AMA came up with a plan that would keep it as the basis of the future city, notably reutilizing the water network as the circulation scheme, and creating a green framework contiguous to the arterial road system supporting the structure of the urban landscape, thus avoiding an eventual mayhem.

All the segments were to be linked through a chain of parks, squares, banks and intersections, promoting a global environmental consistency. The buildings were incorporated into the landscape, naturally fitting within the geometry provided by the urban setting. Each area of the city would find an identity based on the proposed layout and the provided guidelines: high tech industry, international residential area, scientific research zone, cultural infrastructures, service areas and touristic sites.¹⁴⁸

The recently released *Deepened Regulatory Plan* includes in fact many of the concepts provided by AMA's proposal. According to Hao Jin, from Hengqin New Area Urban Planning and Land & Resources Bureau, a continuous greenway will be built along the coast to bring to light Hengqin's characteristics. Large-scale parking lots and bus depots will be built at the edges of the Hengqin island to promote the public transportation and the use of the pedestrian lanes. The plan also proposes upscale business centres, innumerous cultural and educational services, housing communities, leisure structures and high-tech areas.¹⁴⁹

¹⁴⁷ Thierry Melot, Head of AMA, apud **Hengqin seeks historic design**. [Online].

¹⁴⁸ Aménagement de la ville franche d'Henggin à Macao Zuhai, Henggin. [Online].

¹⁴⁹ Hengqin plans honed for eco-island. [Online].





10. Future skyline of the Shizimen Cultural Business District 11. HOK's proposal for the Shizimen Cultural Business District

The Shizimen Central Business District

A key regional project, the Shizimen CBD will play a crucial role in accelerating construction on Hengqin New Area while boosting development on the west bank of the Pearl River Estuary using the authority granted by the PRC to enhance regional cooperation and further open up to the world. The district will occupy an area of $5.77 \, \mathrm{km^2}$, split between the 1^{st} phase cluster on the Nanwan coast of Zhuhai ($2.28 \, \mathrm{km^2}$) and the Business Service Section on the northeastern tip of the Hengqin island ($3.49 \, \mathrm{km^2}$). The entire project will take 5 years to be completely built, and within ten years this modern service centre is expected to be in full operation, along with the establishment of a new international cosmopolitan semblance. ¹⁵⁰

The Shizimen CBD overall plan consists of five key zones:

- The **Convention & Exhibition Centre**, located in the Nanwan coast, will be mainly composed of a convention and exhibition cluster, administrative offices, public spaces and parking areas;
- The **Nanwan Hillside Community**, adjacent to the Convention & Exhibition Business, will be an upscale riverside residential area;
- The **Recreation & Entertainment Area**, located south of Hengqin Bridge, will focus on business support and upscale leisure and residential facilities.
- The **Hengqin Centre Area**, situated on a standalone island in east Hengqin, will be the core of the CBD, focusing on upscale business support. In addition, a leisure corridor will run from south to north, consisting of a series of cultural and commercial attractions.
- The **Waterfront Community**, located south of the Hengqin Centre Area, will highlight business support and scientific research plus educational and housing facilities.

An international competition was held in regard to the master planning of Shizimen's CBD. HOK International was the successful one out of a notorious shortlist that included offices as Arata Isozaki Associates (Japan), NBBJ (USA), RTKL (USA), Atkins (UK-based), RMJM (UK-based) and Cox (Australia).

HOK's proposal was thought to allow maximum connectivity between all areas - linked by a park system - thus creating a "live-work-play environment." Also, a noteworthy skyline was taken into account in order to "maintain balance and transparency through buildings to the anchoring mountains" while "establishing Zhuhai's new image, allowing unlimited views to Macau and neighbouring cities." ¹⁵¹

Curiously, this master plan was preceded by the Zhuhai Lovers' Road Redevelopment, a *project* for the entire east and south waterfront of Zhuhai in a 55km-long corridor that faces Macao all the way from its eastern point at the gateway of the HKZM Bridge until its western edge, the Shizimen CBD. HOK's winning scheme aimed at revitalizing the waterfront and catalyzing the area's redevelopment - including Macao -, by creating a framework of improved public spaces.¹⁵²

¹⁵⁰ Shizimen Tower to Rise over Hengqin Island. [Online].

¹⁵¹ Asia Pacific Planning Group Wins Design Competition for Zhuhai Shizimen Central Business District. [Online].

¹⁵² Idem.







12. The Shizimen Cultural Business District - 1st phase model
 13. RMJM's proposal for the Shizimen Cultural Business District - 1st phase
 14. HOK's proposal for the Zhuhai Lover's Road redevelopment

For the design and planning of the urban facilities of the Hengqin section of the Shizimen CBD, the chosen office was Woods Bagot, an Australia-based global design studio. While targeting the region as one of the most influential in Asia, the plan was drawn maximizing the long-term interest of economic, social and cultural development while minimizing the overall environmental impact.¹⁵³

As for the Hengqin's section landscape project, the Australia-based office Hassel took the first place, competing against Burega Farnell (Singapore), MCM Group (USA) and Urban Design International (USA), amongst others. Hassel succeeded in designing a high-quality waterfront, proposing a single continuous landscape stretching around the island and the peninsula and stringing the areas together through a dynamic scheme of green corridors, waterways and sculptural strategic points. ¹⁵⁴

Work in Progress: the Convention & Exhibition Centre

The preliminary landscaping works are expected to be completed by 2014 at the Hengqin section, but for now the emphasis is being placed at the northern shore of the Shizimen Channel, where the first phase of the CBD is already ongoing since July 2010 (conclusion expected by 2014). HUAFA Group, Zhuhai's largest real estate company, is responsible for the first phase cluster, which shall include a large public urban complex comprising two international convention and exhibition centres, hospitality and MICE facilities, and other related support services.¹⁵⁵

RMJM, a UK-based architectural practice has won the international competition for the first phase complex. Other world-level designers in the competition included Atkins Design Studio (UK-based), Cox (Australia); Arata Isozaki & Associates (Japan), NBBJ (USA), GMP Architects (Germany) and WATG (US), just to name a few. The jury underlined RMJM's attitude towards the spatial urban dynamic and the bond created with the surroundings areas. ¹⁵⁶

In fact, the winning design ambitioned to "encapsulate the characteristics that make the city so unique: its relationship to its landscape, waterfront and romantic tradition." A silver urban ribbon was planned to bring together all the mentioned uses above with the waterfront leisure esplanade, enhancing the importance of improving the riverside character. In addition, the strategic placement of a landmark tower (St. Regis Tower) right on the tip of the lot is by itself an act of intentional skyline design, rivaling with the Macao Tower. The lower floors of the St. Regis Tower will be for international-standard office areas and the upper floors will contain a luxury hotel managed by St Regis Hotels & Resorts, a component of Starwood Hotels & Resorts Worldwide Inc.

The tower blueprint¹⁵⁸ is up to 10DESIGN, a Hong-Kong studio, responsible for a couple of projects more within the Hengqin New Area. In collaboration with the structural engineer Buro

¹⁵⁷ Zhuhai Shizimen Business Cluster Exhibition and Convention Centre, Zhuhai, China. [Online].

¹⁵³ **CBD designer picked.** [Online].

¹⁵⁴ Zhuhai Cross Gate CBD Landscape Design. [Online].

Hengqin doorstep designers picked. [Online].

¹⁵⁶ Idem

The author was told by 10DESIGN that the project is still confidential, thereby no detailed information has been made public so far.







15. Atkins proposal for the Huarong Hengqin Tower16. GMP Architects proposal for the Hengqin Headquarters Complex17. 10DESIGN's proposal for the Infinity Loop Bridge

Happold, they have won the international competition for the key signature gateway bridge for the Shizimen CBD (Hengqin section), surpassing 15 other invited participants such as AEDAS (London/Hong Kong), ARUP (UK-based) or Woods Bagot (Australia-based). 10DESIGN's Infinity Loop bridge will be the largest of the five proposed new bridges, scheduled to be concluded by 2014. This dynamic 300m-long structure is based on the idea of a ribbon that wraps itself around the platform and then flies upwards creating a "continuous sculptural loop form," thereby accomplishing the pretended vivid effect and visual appealing point.

Further projects within the Hengqin New Area plan

Other relevant projects, of which plans have been revealed, are the Hengqin Headquarters Tower and the Huarong Hengqin Tower. Located in the north of Hengqin Port Service area, within a joint investment by China Metallurgical Construction, Big Hengqin Investment and Hong Kongbased Jimei Group, the Hengqin Headquarters complex is intended to include a milestone building across from the Macao Tower. An international bidding for the design of the landmark tower in question was held, and the jury opted for the rational, yet delicate proposal presented by GMP Architects (Germany). As for the Huarong Hengqin Tower, the engineering and design consultancy Atkins (UK) was selected by the project developer Huarong Real Estate to provide an eye-catching layout for their mixed-use development that shall face Macao's Cotai Strip. 161

The first group of projects to be built on the eastern shore facing Cotai also include the Lanqin International Finance Tower, which will feature an international-brand shopping mall and a five-star hotel; the Hengqin Phoenix Tree Tower, which will encompass a seven-star hotel and a platinum five-star hotel; and the Intercontinental Shipping Centre, expected to be a high-rise building featuring high-class offices, a large modern shopping, hotel facilities and shipping facilities.¹⁶²

Meanwhile, the southern section of the island was set aside for the Chime-Long International Ocean Resort, under construction since 2009 at Fuxiang Bay. The project includes entertainment areas, amusement theme-parks, high-tech experiences, deluxe resorts and a few more additional structures. After its opening, due 2013, it is expected to attract more than 20 million visitors a year. Together with Hong Kong's Disneyland, Shenzhen's theme-park Overseas Chinese Town and Macao's resorts and casinos, the GPRD region is set to offer one of the strongest entertainment alliances in Asia.

¹⁵⁹ Shizimen Bridge Competition – The Infinity Loop (The Winning Scheme). [Online].

Hengqin tower designed. [Online].

¹⁶¹ Atkins to design waterfront Huarong Hengqin Tower in Zhuhai. [Online].

¹⁶² Hengqin projected onto world stage. [Online].

¹⁶³ Hengqin new mega economic centre. [Online].





- 18. The new University campus site on the Hengqin island
- 19. The new University campus master plan by He Jingtang

"What will Macao get?" 164

Recently, the Director of Zhuhai's Finance Bureau, Zhou Chang, declared that "Zhuhai will continue to depend on Macao for its future development" ¹⁶⁵ even with the financial growth implied in the Hengqin project. Anyway, Macao should not be resting aside, otherwise it may become a second-choice target instead of a first-class attractive destination. Taking advantage of the Hengqin expansion is a great opportunity to diversify Macao's industry and overcome some adversities. But is Macao being granted any privileges?

With regard to participation in the exploration of Hengqin island, government has granted will continuous and active help for enterprises from Macao to have knowledge of the most up-to-date policies and regulations for investment in the Hengqin island. A specific commission will be implemented, dedicated to boost the participation of local companies in the exploration of the nearby island. Recently, Zhuhai Land and House Property Exchange Centre has auctioned a 40-year lease on a plot on Hengqin island in a tender exclusively tailored for Macao. However, apart from this sporadic benefits, it is not easy to involve Macao companies due to the worldwide-publicized competitions.

It can indeed minimize its limitations if wisely carried out. For instance, the Chime-Long project supplements Macao's lack of landscaped natural sites and amusements parks of great dimension, despite its successful gambling industry. On the other hand, Zhuhai may also benefit from regional cooperation in the area of tourism. The city is rich in resources but has a low level of international recognition, which Macao can help to surpass.

Currently, from the twenty-three major projects underway, six involve Hong Kong and Macao investors. Among these, the Science and Technology Industrial Park of Chinese Medicine, which shall be jointly operated by the MSAR and Guangdong province authorities, is one of the most important ones, but it is the new campus of the University of Macau that has been given higher notice.

The new campus of the University of Macao

The new university campus is scheduled to be completed by December 2012, revealing the effort and commitment put out by the MSAR. The Hengqin campus is believed to strengthen the collaboration between Guangdong, Macao and Hong Kong in higher education as set out in the Outline of the Plan for the Reform and Development of the Pearl River Delta.

The University's current facilities in Taipa are no longer adequate for the number of students and staff, and the University felt the need to expand its services. Since 2002, the University of Macao had been engaged on the lookout for a portion of land to realize the dream of building a new campus. Several proposals for land acquisition were submitted, but none was ever considered

¹⁶⁴ Tak-Wing Ngo, Professor of Political Science at the University of Macau, apud YU, Grace - **MSAR "too timid" over Hengqin**

project, academic says. [Online].

165 CHOI, Sum - Macau and Hengqin set for "seamless connection". [Online].

Government of the MSAR - **Linhas de acção governativa para o ano financeiro de 2012**, 2011. p.23.



- 20. Construction works at the University new campus
- 21. Construction works at the University new campus
- 22. The future University of Macao campus on the Hengqin island
- 23. Aerial view of the future University of Macao campus on the Hengqin island

viable. Due to the limited area of Macao, this quest for land had never reached a successful ending until 2007, when the prospect of a new campus on Hengqin island was first discussed at a joint meeting of the University Assembly and University Council.

The University Council then presented a formal proposal regarding the construction of a new campus on Hengqin island to the MSAR government in 2008, and consent was given to this pilot-project. A draft proposal of the "Preliminary Thoughts and Concepts on the University of Macao's Hengqin Campus" was subsequently submitted to the central government, and in June 2009, the MSAR was at last granted jurisdiction over a 1.0926km² site on Hengqin island for the new campus and a monthly rental fee was agreed between both parties. What's more, construction began in December 2009 with the honorable presence of President Hu Jintao, who attended the launching ceremony as a sign of support and high regard.

The central government's approval may have (temporarily) solved the problem of land scarcity that had been haunting the University's development for a long time. However, for the time being, the University's jurisdiction over the new site is likely to expire in 2049, unless the central government decides otherwise in the meantime.

The project was conducted by He Jingtang (1938-), a Chinese architect and Vice Chairman of the Architectural Society of the PRC, who in recent years has been responsible for most of the university projects in the mainland, but also for the PRC's pavilion at the 2010 World Exhibition in Shanghai.

The new campus (twenty times larger than the current one) is located on the eastern coast of Hengqin island to the south of the Lotus Bridge, across a narrow water channel from Macao. According to the University, the new campus will aggregate both the culture of southern PRC and southern Europe in a tranquil, comfortable and liberating environment. It shall be a green, efficient, and eco-friendly campus, receptive to new technologies and materials.¹⁶⁷

The building area of the new campus will be approximately 820,000m², and shall take in seven faculties, with a system of residential colleges and open research centres. The residential college buildings and faculty buildings will be ideally located and interconnected to facilitate cross-faculty interaction and the foundation of a culturally-rich environment. The overall layout of the campus will also integrate waterways, green spaces, artificial hills and courtyards, consisting of a multi-level landscaping scheme.

At the heart of the new campus, the main library will overlook the river and Macao on the opposite shore, surrounded by the educational islands. At the southern end will be the staff residential quarters, while at the northern end of the campus will be the sports stadium and gymnasium, the central administrative building and the parking area.¹⁶⁸

For the convenience of the University community, a tunnel is being built south of the Lotus Bridge guaranteeing four lanes accessible to vehicles and one for pedestrians, operational 24 hours per day. The original plan was to build a bridge, but the impact of typhoons could prevent it from being used. This way, students, staff, visitors and Macao residents will be able to access the campus straightforwardly, at any time and without going through immigration clearance.

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¹⁶⁷ University of Macau Hengqin Campus. [Online].

¹⁶⁸ O' Neill, Mark - **Building a new university – a once in a lifetime project**. [Online].



24. The Hengqin New Area model and promotional videos

Furthermore, the projected Hengqin campus will keep the university's conventions and regulations, despite being located under Chinese jurisdiction. To ensure its effective management on such specific circumstances, the new campus will be segregated from the rest of the Hengqin island by the use of watercourses as physical blockages.¹⁶⁹

Undoubtedly, having in mind the importance of a seamless mobility is crucial for the success of the whole Hengqin project. The Hengqin New Area will act as a new integrated transportation hub, speeding up its connections with a series of highways, inter-city rails and ports, while strengthening the existing network, thus guaranteeing the link with the mainland in all possible ways. ¹⁷⁰ In addition, the construction of the HKZMB is expected to foster regional mobility. The project will reduce the driving time between Hong Kong and Macao or Zhuhai to only 40 minutes, six times less than the current travel time. The conclusion of the inter-urban rail segment Gongbei-Hengqin and the Macao light rail connection to Hengqin will be accelerated, as Hengqin cannot afford being kept isolated from its neighbours.

Furthermore, once the new customs policy is implemented, over 10 million tourists are expected to travel between Macao and Hengqin, reinforcing each territory's advantages. Both governments are committed to lessening border bureaucracies in order to permit an easier flow of people:

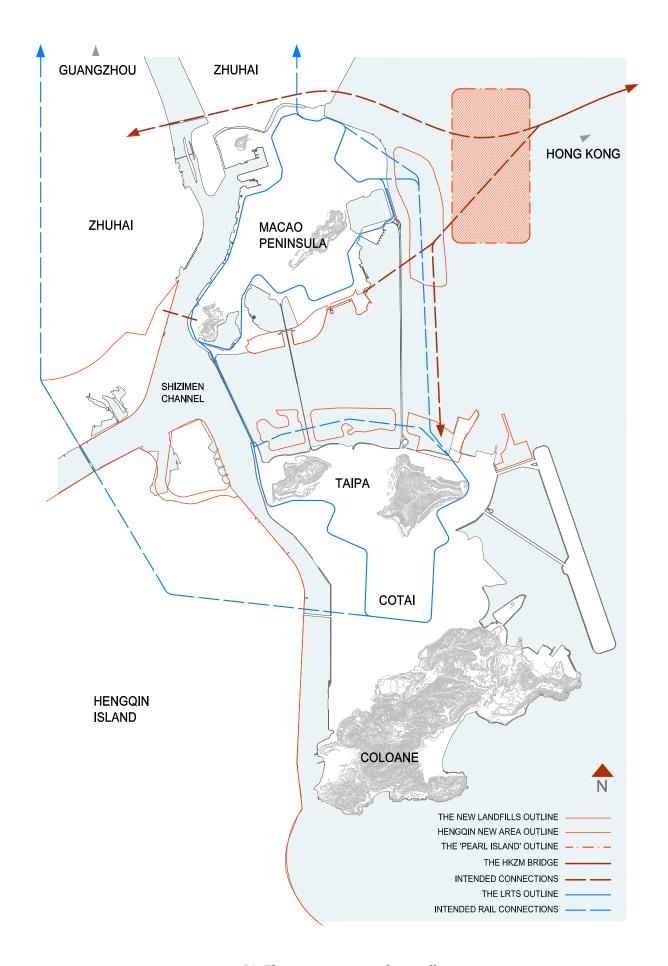
"With a view to setting up a land transport network that offers maximum convenience in the exchanges between different means of transport, both parties agreed to improve the articulation by establishing direct links between public transport systems and launching a new model of operation of border crossing whose intention is to gradually extend the opening hours looking for a 24h-border function." ¹⁷¹

Nonetheless, only when the Hengqin island is on a more mature stage, will the authorities decide on the border crossing solution. Macao is most likely to have a first-line control, while a second-line control is to be placed between Hengqin and the PRC's mainland.

¹⁷⁰ University of Macau Hengqin Campus. [Online].

¹⁶⁹ New UM Campus Project. [Online].

¹⁷¹ Quadro Geral da Política de Trânsito e Transportes Terrestres de Macau (2010-2020). [Online].



01. The new transportation outline

SECTION 3 TRANSPORTATION NETWORK

Project	Macao Light Rapid Transit System
Location	Macao Special Administrative Region of the People's Republic of China
Promoter	Government of the MSAR
Design	Transportation Infrastructure Office (Government of the MSAR)
Dates	(1 st phase) 2002 - 2015 / (2 nd phase) 2020
Status	Ongoing construction (1 st phase)

Project	Hong Kong - Zhuhai - Macao Bridge
Promoter	The governments of MSAR, HKSAR and Zhuhai Municipality
	under the supervision of the PRC's central government
Design	Design and construction consulting of the HZMB main work:
	Leader: Shanghai Municipal Engineering Design Institute Co., Ltd.
	Members :
	1. Y.LIN International Group Limited
	2. Holland Tunnel Engineering Consultant
	3. Guangzhou Metro Design & Research Institute Co., Ltd.
	Bridge Engineering Construction Drawing Design of HZMB main work (DB01 section):
	Organizer: CCCC Highway Consultants Co., Ltd
	Member: HONSHA Co., Ltd.
	Bridge Engineering Construction Drawing Design of HZMB main work (DB02 section):
	Organizer: China Railway Bridge Survey & Design Institute Co., Ltd.
	Member: Halcrow Group Limited
	General contractor of design and construction of artificial islands and tunnel work:
	Leader: China Communications Construction Co., Ltd.
	Members:
	1.CCCC Highway Consultants Co., Ltd.
	2.AECOM Asia Co., Ltd.
	3.COWI A/S
	4.Shanghai Urban Construction Group Corporation
	5.Shanghai Tunnel Engineering & Rail Transit Design and Research Institute
	6.CCCC Fourth Harbor Engineering Investigation and Design Institute Co., Ltd. 172
Dates	2002 - 2016

Ongoing construction

Status

 $^{^{172}}$ Hong Kong - Zhuhai - Macao Bridge. [Online].



02. Linking the Great Pearl River Delta

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"The Pearl River Delta will make great efforts to push forward the construction of transportation infrastructure, form a coordinated and integrated transportation system with a complete network, reasonable distribution and operational efficiency, closely linked with Hong Kong, Macao, and the peripheral areas." 173

The GPRD has evolved from "a largely rural landscape of farms and rice fields into a polycentric regional conurbation of immense scale," demanding urban integration in the establishment of this metropolitan sphere. The ability to achieve the urban planning objectives described in the previous section will depend to a considerable extent on the capacity of the three geographic areas to achieve a distribution system that allows the desired seamless interlocking.

As one of the distinctive features of such urban structure, the widespread scheme of flows, commonly referred to as the *constellation plan*, allows nearby cities to harmoniously develop to function collectively, vanishing borders and prompting greater convenience and a larger living space to the resident population, as well as a varied choice in professional and leisure routines.

Without a doubt, the economic development of cities relies to a great extent on its accessibility, namely in its connection with the major transportation networks. Inter-modality has become one of the key principles of urban planning and it is acknowledged as an extremely valuable asset.¹⁷⁵

Being one of the country's economic powerhouses, the GPRD must pursuit this goal of enhancing mobility within its limits as a fundamental part of the regional development strategy. Indeed, once completed, this dense network will connect all the PRD cities, but the planned scheme will not be successfully accomplished until the integration of Macao and Hong Kong. According to the plan of action proposed by *The Planning Study on the Coordinated Development of the Greater Pearl River Delta Townships*, to greatly improve the overall effectiveness of the transportation system in the region, there should be an increase on the external linkages to make up for its disadvantage of being located at the peripheral position of the national network, strengthening links between Hong Kong, Macao and the mainland. The study proposes a one-hour commuting circle within the Bay Area (Intercity Transportation Plan) and within the metropolitan areas (Cross-Boundary Transportation Plan) as main objectives to be put into practice. While covering all types of transportation, it emphasizes both the railway system and the highway network. It is on these grounds that one should appreciate the ongoing revitalization process all over the region.

¹⁷³ Promotion of Infrastructure Modernization (Chapter V) in **The Outline of the Plan for the Reform and Development of the Pearl River Delta (2008-2020).** [Online].

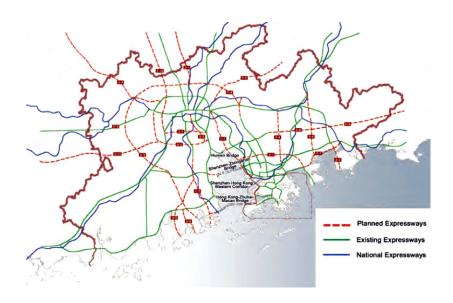
¹⁷⁴ CAMPANELLA, Thomas - **The Concrete Dragon: China's urban revolution and what it means for the World**, 2010. p.50.

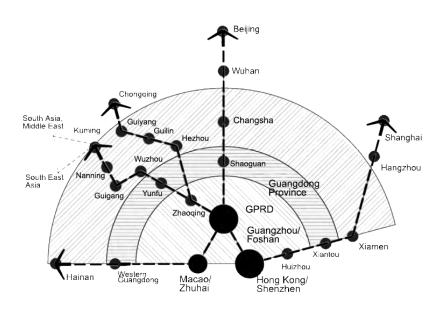
ASCHER, François - Novos Princípios do Urbanismo & Novos Compromissos Urbanos, 2010. p.139.

¹⁷⁶ Building a Coordinated and Sustainable World-Class City-Region. [Online]. p.82.

¹⁷⁷ Idem.

¹⁷⁸ Ibidem, p.94.





03. The layout of highways in the Great Pearl River Delta city-region04. The layout of the high-speed railways of the Great Pearl River Delta city-region

(Inter)Connecting the Great Pearl River Delta

Back in 2004, the Guangdong Provincial Transportation Department and the Guangdong Development and Reform Commission released the *Expressway Network Plan of Guangdong Province (2004-2030*), according to which the existing network should be integrated in a newly conceived layout in order to create an intercity highway system having Guangzhou as the centre hub, the Guangzhou-Shenzhen (Hong Kong) Line and the Guangzhou-Zhuhai (Macao) Line as main axis, plus a number of ring roads, radiating lines, vertical and horizontal links as subsequent framework. ¹⁷⁹ In fact, the PRD's total length of expressways grew from 1301km in 2000 to 3508km by the end of 2009, and t is expected to reach 6145km by 2020.

Later, in 2009, the National Development and Reform Commission approved the *Intercity Rail Transport Plan for Urban Integration of the GPRD*, confirming the construction of an intercity rail transport network featuring three circular and eight outbound routes until 2020. Circular Route One shall be the Guangzhou-Foshan route, which will enlarge the commuting radius from major passenger nodes like the Guangzhou Baiyun International Airport and New Guangzhou Station and connect with the rail network radiating from Guangzhou. Circular Route Two shall combine three intercity rail lines (Guangzhou- Dongguan-Shenzhen line, Zhongshan-Nansha-Humen line and Guangzhou-Foshan-Zhuhai line) into a circular route that travels along the Pearl River Estuary. Circular Route Three shall be the major circular route that encircles the Pearl River Estuary by combining the Guangzhou-Dongguan-Shenzhen line, the Shenzhen-Zhuhai line and the Guangzhou-Foshan-Zhuhai line. The eight outbound routes include the Guangzhou-Foshan-Zhaoqing, Guangzhou-Qingyuan, Guangzhou-Huizhou, Dongguan-Huizhou, Shenzhen-Huizhou, Zhuhai-Doushan, Jiangmen-Enping and Zhaoqing-Gaoming routes. 180

Summing up, the inter-city layout will cross the Shenzhen-Hong Kong boundary on the eastern side and the Zhuhai-Macau boundary on the western side to form a network covering the entire GPRD. By 2020, it will feature several circuits and strategic nodes, in particular Guangzhou in central GPRD, Hong Kong and Shenzhen on the eastern shore, and Macao and Zhuhai on the western side.

What's more, as part of the regional intercity railway network, the Guangzhou-Shenzhen-Hong Kong high-speed railway is on the way and the Guangzhou-Zhuhai segment has been partly operational since January 2011. Upon completion (due 2015), the Hong Kong section of the Guangzhou-Shenzhen-Hong Kong link will connect Hong Kong with the national high-speed rail network and provide direct access to the Shibi terminus in Guangzhou.

As for the Guangzhou–Zhuhai segment, once fully completed, it shall link the New Guangzhou Station to the Zhuhai Airport. It currently takes no less than 3 hours to travel between Zhuhai and Guangzhou, but the new line will reduce the travel time to less than a 1-hour journey. In addition, and under *The Framework Agreement on Cooperation Between Guangdong and Macao*, the regional transport planning also previews the possibility of extending the Guangzhou–Zhuhai line to the island of Hengqin, thereby assisting its linkage with Macao's LRTS.¹⁸¹

¹⁷⁹ Ibidem, p.85.

¹⁸⁰ Idem.

¹⁸¹ Quadro Geral da Política de Trânsito e Transportes Terrestres de Macau (2010-2020). [Online].





05. Future Macao LRTS stations
06. The layout of the future Macao LRTS

In the past, the GPRD lacked an efficient transport organization, generating segregation amongst the most distant cities. But that has also been the case of Macao and Zhuhai - despite the short distance between both territories -, where the only connecting point was until recently the Gongbei border. However, once the issue of accessibility was taken into account as a vital development element, improvements began to take place.

Mention must be made to the pedestrian walkway currently under study between Zhuhai (Wanchai area) and Macao (Barra area). The MSAR government, along with the Guangdong province government are committed to speeding up the study on the feasibility of the mentioned underwater crossing channel in order to ease the overall connection between the neighbouring cities, ¹⁸² as the territory's borders have already reached their maximum capacity.

In addition, the LRTS will be of enormous importance, not only to guarantee a better mobility within the city, but also as a means to connect with the West Bank of the GPRD, whereas the HKZMB will link Macao to the eastern bank, thereby closing the golden triangle (Guangzhou-Macao - Hong Kong).

Macao Light Rapid Transit System

As the railway transport gradually becomes the core of the GPRD's transit system, Macao's transport planning, particularly the railway layout, is now facing higher challenges. Basically, from "simply considering the transport needs inside the city" to "establishing a seamless transport network among the region", the MSAR government understood that the Macao LRTS was bound to follow the regional strategy.

Macao's LRTS was first announced in early 2002 by the first Chief Executive, Edmond Ho. By that time, the Mass Transit Railway Corporation Limited went into play to prepare a preliminary study on the city's urban railway transport scheme. Until 2005, the MSAR government undertook the first phase of the feasibility study, in which it was suggested that "it would be more suitable for Macao to have a light rail system," setting the system typology. Compared to the heavy rail transit system, the light rapid transit was said to be more suitable for the city's urban fabric, due to its minor turning radius, its low noise level and its reduced visual impact. Despite being a different technology than the one used in the Guangzhou line, the government still thinks that efficient interchange is possible by setting up large-scale crossing stations.

Following the first report conclusions and the opinions collected during the first public consultation, two more studies were carried out in 2005 and 2006. On the *Detailed Research Program* (2006) the elevated railway system was considered the most suitable for the specific urban characteristics of Macao, having as advantages a shorter construction time and a lower investment cost.¹⁸⁵ In addition, a series of technical details were discussed (the lines layout, the stations design, the platforms installation, the natural ventilation and the lighting system). However, the public

¹⁸² "Passagem subaquática pedonal entre o Porto Interior e a Ilha da Lapa (Wanchai) em Zhuhai" *in* Government of the MSAR - **Linhas de acção governativa para o ano financeiro de 2012**, 2011. p.378.

¹⁸³ Research Progress for the Macao LRT. [Online].

Building "Seamless Transport Interchange" Embracing the Pearl River Delta's "One-hour Living Sphere". [Online].

¹⁸⁵ Elevated and Underground Railway System. [Online].



07. The future Macao LRTS lines

consultation revealed some important concerns: the large number of stations, the disregard of the most dense residential zones and the fact that the proposed course would obstruct several heritage views and historical buildings.

One year later, the government released an *Optimization Program* in order to culminate eventual flaws in the new transport system. A new layout for the lines was presented, running from the Gongbei Border to the Cotai reclaimed area, reaching both residential areas and touristic attractions. The system was suggested to address issues as energy management, environmental protection, barrier-free accessibility and public transport interchange. In November 2007, the Transportation Infrastructure Office (Portuguese: Gabinete para as Infra-estruturas de Transportes) was established and was held responsible for the design and construction of Macao's LRTS.¹⁸⁶

Since the *Optimization Program* there has been a readjustment of the predetermined layout. As it was clarified by Lei Chan Tong, the Coordinator of the Transportation Infrastructure Office, by the time the rail scheme was conceived, the government was not aware of the outcome of The Outline of the Plan for the Reform and Development of the Pearl River Delta, which has positioned Macao as a world tourism and leisure hub. Therefore, there was an update to the LRTS plan in accordance with the new guidelines for the territory, causing a delay in the prearranged schedule.¹⁸⁷

The major changes affected the Barra station and the Nam Van and Sai Van Lakes segments, initially proposed to be elevated. The Barra station is now expected to function as an underground transport hub and the Nam Van Lake and Sai Van Lake sections will also be built as tunnels, as well as the Sai Van Lake station.

With a capacity of 8,000 people per hour per direction expected in 2014 (and increasing to 14,200 in 2020), Macao's LRTS project will comprise three lines:

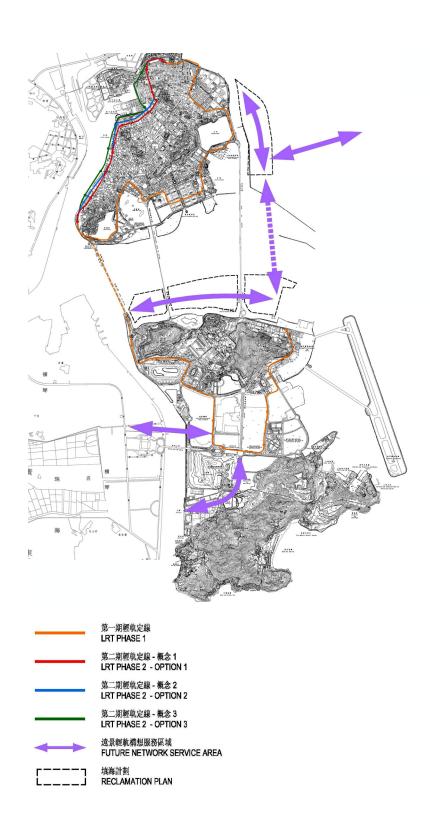
Line 1 will start at the Gongbei Border, pass the Areia Preta residential area, the Outer Harbour Ferry Terminal and the ZAPE/NAPE zone, before reaching the waterfront lakes and the A-Ma temple at the Barra Station. A 2.6km-long tunnel will be built under the Dr. Stanley Ho Avenue and the Sai Van fire station until the Barra station, comprising the Nam Van Lake and Sai Van Lake sections. The Barra station has been redesigned since the *Optimization Program* because it was too close to the A-ma Temple, endangering the World Heritage preservation. As the connecting point between Macao and Taipa lines, and the future western line, it will have two underground platforms. Otherwise, it would instigate a massive impact on its surroundings, located at a UNESCO buffer zone. Overall, line 1 will run through 10 stations along its 10km, on a 20-minute journey.

Line 2 will follow the route from Sai Van Bridge into Taipa's territory, connecting the Macao Jockey Club to the Cotai area, the Macao International Airport and Taipa's future ferry terminal (Pac On). Line 2 will also receive an interchange structure at the Governador Albano de Oliveira Avenue, which will manage the transfer operations between the public bus system and the LRT. It will also include parking lots, taxi stands and improved pedestrian walkways. Overall, line 2 will comprise 11 stations along its 5.5km, on a 9-minute journey.

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¹⁸⁶ Research Progress for the Macao LRT. [Online].

¹⁸⁷ Light rail cost soars to MOP 7.5 billion. [Online].



08. The future connections

Line 3 will run on the Patane waterfront (Inner Harbour), but its details are still undetermined. However, one thing is certain: it shall meet line 1 at the Gongbei Station and once again at the Barra Station, where shall also connect with line 2. Three preliminary alignments are currently out for evaluation, covering the 5km distance between the mentioned stations. 188

In October 2009, the construction's first phase was announced. Mitsubishi Heavy Industries was then selected from a group of bidders including the Siemens-China Civil Engineering Construction Corp. and the Bombardier Transportation-China Road & Bridge Corp. to supply the first phase construction works. According to the Transportation Infrastructure Office, the Mitsubishi Heavy Industries trains were the lightest, which could reduce the structural efforts, thus minimizing the system's impact on the city.

As for the train design, the Transportation Infrastructure Office has chosen the "Ocean Cruiser", whose concept aims at portraying Macao as "a city full of rich sense of seaside vacation". Indeed, the description given by the Transportation Infrastructure Office is particularly detailed: "The colours of pale blue and navy blue of the train exterior represent seafloors, while the orange wavy pattern of the both sides of the train symbolizes the reflection of sunlight. Looking outside through the wide octagonal windows ahead the train is as if enjoying the beautiful scenery from the resort hotel room. Sailing boat is the design inspiration of the intervals within the carriage and the handrail columns. The dynamic circular design of the handrails and vertical rails portrayed the corrugated movement on the surface of water." 189

The first phase of the construction process comprises lines 1 and 2 on a total of 21 stations, and it is expected to open to public in 2015.

Works have already begun (February 2012) on line 2. The project finally got off the ground with the 1.94km-long Taipa section, consisting of four stations (Ocean Gardens, Macao Jockey Club, Macau Stadium and Taipa Village), which was followed by the Cotai and the Taipa Terminal sections in June 2012. The 3.4km-long Cotai section will include four stations as well (Cotai West, Lotus Border, Macau East Asian Games Dome and Cotai East), whereas the 3.1km-long Taipa Terminal section will comprise three stations (Macau University of Science and Technology, Macau International Airport and Macau Maritime Ferry Terminal). 190

The second phase will include the Inner Harbour line (line 3), which is yet to be defined, as well as a few further phases that are expected to widen the network in the future to involve the new neighbourhoods at the new landfills.

In fact, the new landfills project has deeply increased the Transportation Infrastructure Office responsibilities. The conquest of additional land has demanded a series of studies on possible layouts for the future road network and rail lines. It is an opportunity to minimize the traffic pressure on the most affected areas, but it also requires the skill to plan a correct integration of the transportation network within these new areas. The future external road will act as an ally to the major existing arteries, but it will also rely on the rail scheme to ease circulation between the

¹⁸⁸ Estudo Prévio da Viabilidade da 2ª Fase do Sistema de Metro Ligeiro de Macau. [Online].

^{189 &}quot;Ocean Cruiser" is elected to be the model of Macao LRT. [Online].

¹⁹⁰ Macao's LRT sectional project starts officially. [Online].



09. The HKZMB connectivity within the GPRD region

old city and the new reclaimed areas.¹⁹¹ That said, the surge of more lines is undeniable. The intentional plan so far, is to link zones C, D and E with line 2 on Taipa's side; and to urge the connection between line 2 with zone A, adjacent to the HKZMB boundary facilities, on Macao's Peninsula side. These actions would strengthen Macao's LRTS efficiency because it would become an enclosed scheme, maximizing accessibility and expediency. It would also allow a better linkage with the Hengqin island and with the HKZMB, enhancing the cross-border routes, and consequently supporting Macao's aimed integration within the GPRD.

The Hong-Kong - Zhuhai - Macao Bridge

The cross-Pearl River Bridge is a key project for maintaining the soaring momentum of the GPRD, meeting the high demands of the most recent development. After the Asian financial crisis of 1997, the HKSAR government suggested a sea crossing linking Hong Kong, Macao and Zhuhai in order to revitalize the economy and seek new points for economic growth. A proposal to build the Hong Kong-Zhuhai-Macao Bridge (HZMB) was subsequently sent to the central government in 2002.

In July 2003, the National Development and Reform Commission of the China and the HKSAR government jointly sponsored an analysis entitled *Transport Links between Hong Kong and the West Bank of the Pearl River*, where the political and economic importance of the suggested bridge became obvious for both. Afterward, the PRC's central government approved the launch of the preliminary works and ordered the establishment of the Advanced Work Coordination Group of the HKZMB, including officials from the three parties involved: the Guangdong province and both SARs. Nonetheless, a Special Taskforce led by the National Development and Reform Commission was later implemented to accelerate the procedure and coordinate the most decisive issues as the landing points of the bridge, the bridge alignment across the Pearl River, the technical alternatives and the operation of the Boundary Cross Facilities (BCF), as well as questions related to the management and the project's financing. A feasibility study was conducted regarding the project layout and the subsequent studies were carried out on the cross-border solutions to be adopted.

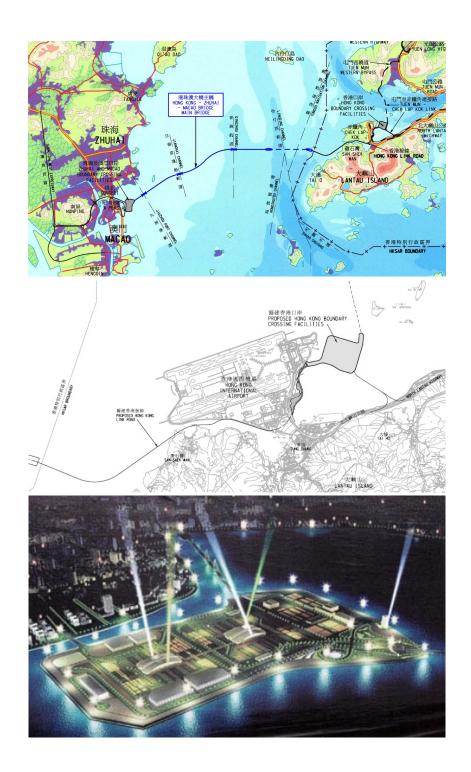
In October 2009, the *HZMB Project Feasibility Study Report* was formally approved by the Prime Minister Wen Jiabao, stating the official implementation of the HZMB project. Only two months later, the Vice Premier Li Keqiang announced the commencement of the construction works.¹⁹² Currently, the construction of the tunnel, artificial islands and bridges has already started, as the target completion date of the HZMB project is 2016.¹⁹³

The proposed bridge is a long river crossing linking the HKSAR, the Zhuhai city of Guangdong province and the MSAR. Upon the conclusion of this mega project, authorities expect to lower the time and economic expenses of border clearance, making cities closer to each other.

¹⁹³ Hong Kong - Zhuhai - Macao Bridge (HZMB) Main Bridge . [Online].

¹⁹¹ Quadro Geral da Política de Trânsito e Transportes Terrestres de Macau (2010-2020). [Online]. p.13.

¹⁹² Ponte Hong-Kong-Zhuhai-Macau - Progresso de obras. [Online].



10. The HKZMB master plan
11. Hong Kong Boundary Crossing Facilities
12. Macau & Zhuhai Boundary Crossing Facilities

The HKZMB project includes a 22.9km-long bridge with a dual 3-lane carriageway starting from the Zhuhai/Macao boundary crossing structure set at an artificial island east of Macao. It runs over the Pearl River Delta (under the PRC's jurisdiction) until it reaches an immersed 6.7km tunnel in-between two artificial supporting islands. The reason the tunnel was planned had to do with the Pearl River Estuary stipulated routes. Elevating the bridge would be the first solution in order to avoid implications within the navigation routes, but the close distance to the Hong Kong International Airport had to be taken into account, thereby leaving no other option rather than a

From this point, one more bridge segment (already within the HKSAR jurisdiction) continues heading east towards the Hong Kong territory, where it shall land at the San Shek Wan area, on the Lantau island. It then follows the link road until the boundary-crossing facility, adjacent to Hong Kong's International Airport.

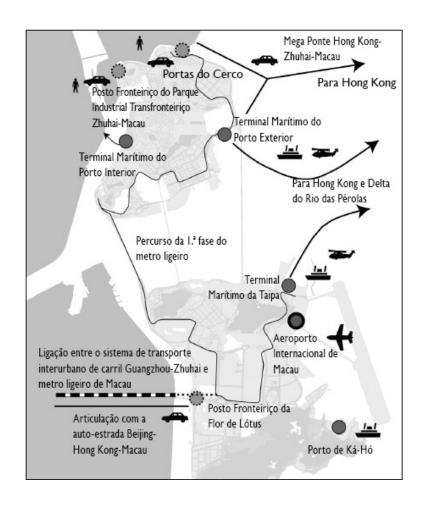
The project does not contemplate the inclusion of rail line, thus leading to some public discussion. This option was left out due to engineering restraints and management-related issues. The railway structure would require a complex engineering blueprint in order to comply with the bridge slope when entering and leaving the submersed tunnel. In addition, it has been claimed that it wouldn't be a cost-effective solution, due to the extremely high expenditure of such structure. But in fact, the inclusion of a railway would promote the use of public transportation, avoiding further traffic overloads in cities already highly jammed as Hong Kong or Macao, and working towards a more eco-friendly environment.

Such a large-scale infrastructure requires a high degree of coordination between all parties. Therefore, it has been mutually agreed that the main bridge and tunnel will be jointly built by the three regional governments, while the remaining section in Hong Kong territory (from San Shek Wan to the boundary crossing structure) will be built by the Hong Kong Government. Likewise, each boundary crossing structure and auxiliary roads will be built and administered independently according to the respective jurisdiction, applying the Three regions, Three Custom Inspections rule.

The works of the HZMB related projects within Hong Kong include the Hong Kong Link Road and the Hong Kong Boundary Crossing Facilities (HKBCF). The HKBCF, accommodating customs, immigration and quarantine facilities, will be located on a reclamation site (130 hectares), acting as a strategic multi-modal transportation hub for international and domestic traffic due to its proximity and accessibility to the Hong Kong International Airport and nearby important highways. The HKSAR Highways Department has organized an International Design Competition for the HKBCF, which reflects the importance given to this new structure as an eventual landmark, as the winning concepts will be used for reference in the detailed design of the HKBCF. 194

On the other hand, Macao's Pearl island - a reclaimed area of 216.4 hectares - will be divided into four main uses: the administration facilities of the HZMB; the connecting facilities to Zhuhai and the respective Zhuhai and Macao BCF's administrative areas. The construction works of such landfill started in late 2009 by the hand of the Zhuhai municipal government, and a part of the dike is already visible. The link road to Zhuhai will run through the north side of Zhuhai Free

¹⁹⁴ HZMB-HKBCF International Design Ideas Competition. [Online].



13. Macao's future connectivity within the GPRD region

Trade Zone until the Hong Wan area, adjacent to the Hengqin island. Here it shall connect to a proposed 13.9km highway to successfully outline the Pearl River Delta regional loop circulation. As for the Macao's BCF, it is expected to occupy an area of 72 hectares on the southern side of the island and from here link to the reclaimed zone A.

However, no conceptual competition was held and little information has been given about its future design, except for the government intentions of saving a lot for an industrial storage area, to take full advantage of an eventual reformulation of exports/imports routes once the bridge is concluded. 195

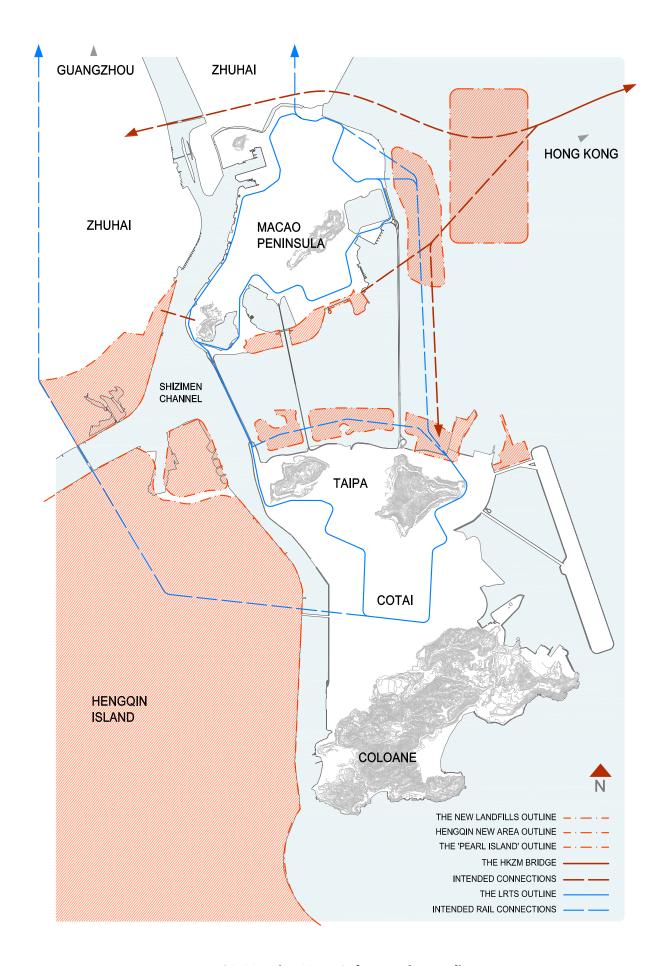
According to Wong Wan, the Director of Macao's Transport Affairs Bureau, the Government has invited six international companies to elaborate a study (to be issued by the end of 2012) on the use of the new island taking into consideration the territory's characteristics and the relevant new projects for Macao. 196 Once again, the future of an important structure for the city may come from outer sources, instead of being planned by Macao itself. Either way, one thing is for sure: this area should respond to the traffic surcharge, predicting the inclusion of parking lots and transport exchange infrastructures.

Following the completion of the announced inter-city infrastructural projects, the GPRD conurbation will definitely become more than just a concept or a vision. This integration will further avoid any kind of marginalization. The direct linkage between the western and eastern banks will not only influence the economic disparity between both edges, but it will also improve the region's competitiveness, which truly rely on the amalgamation of its cities. The new multi-destination possible itineraries will also take a special part on the tourist experience of the region, which will probably boost the tourism industry and its revenues. Indeed, the increasing mobility of people gives an augmented importance to another concept - [local] attractiveness. 197

For Macao, this represents the ultimate opportunity to be fully incorporated in the regional network as the railway system and the mega HKZMB will launch Macao into a whole new relationship with its neighbours, and consequently, with the PRC.

¹⁹⁵ CARVALHO, Raquel - Carga aérea com preços mais competitivos. [Online].

¹⁹⁷ ASCHER, François - **Novos Princípios do Urbanismo & Novos Compromissos Urbanos**, 2010. p.115.



01. Mapping Macao's future urban outline

CONCLUSION

When, in 1999, Macao returned to Chinese sovereignty, few could predict the immense change that the territory was about to undergo. If by then "it was unclear how Macao could compete with other cities" or stand out in the region, the new local authority, together with the PRC's central government immediately joined efforts to launch the territory into a new era.

Over the last decade, both the gambling liberalization and the gained World Heritage status were decisive to promote Macao's touristic image. The MSAR government has been peremptorily taking advantage of such circumstances, and for that is has been counting with the high support of the PRC's central government, whose latest policies were of great assistance for Macao's future development. Not only did it implement the IVS, but it has also included the MSAR in the overall national strategy, which can be traced down to the development of the GPRD region.

Furthermore, besides the mentioned special characteristics, Macao has something that no other city in the GPRD has, let alone in the remaining mainland: its long trading history, and in particular its intimate relationship with various Portuguese-speaking countries. Once again, the PRC has clearly taken into account the particular position that Macao may represent, having enhanced its role in its business connections through the formulation of the Forum for Economic and Commercial Cooperation.

In addition, Macao is now on the run for becoming a world leisure centre, but for that to be possible it is imperative for the city to develop in concordance with its neighbours, according to the PRC's guidelines. Wisely, the PRC has understood the major importance of a strong cooperation within the GPRD. Indeed, once joining efforts, the region has a far higher chance of success than it would have if the various municipalities were to develop on their own. If currently the city of Macao is *divorced* from the GPRD, in the close future Macao, Hong Kong and Guangzhou are bound to generate one of most effervescent conurbations in the world, for what coordinated differentiation has been deemed fundamental.

The MSAR government has been taking that into consideration as well, especially since the territory has to deal with its natural lack of exploitable land and reduced variety of leisure attractions, despite the in-progress redevelopment of the Cotai reclaimed area. Moreover, the MSAR government has embraced the need for a renovated city image, capable of alluring the international markets. Indeed, managing a touristic city requires more than promoting tourism. Macao has understood the role of other factors such as the industry diversification, the city's offered quality of life and its attractiveness within the foreign investors.

But "what should architects know about how economists think?" ¹⁹⁹ In the specific case of Macao, a responsible urban planning must allow for a sustainable financial system and make efforts for the maintenance of its high-level current finances. ²⁰⁰ The economic stability of Macao

¹⁹⁸ TIEBEN, Hendrik - Urban Image Construction in Macau in the First Decade after the "Handover" 1999-2008, 2009. p.67.

¹⁹⁹ DAWSON, Layla - **Boom town Macau mimics Vegas.** [Online].

²⁰⁰ According to the Statistics and Census Service's **Monthly Bulletin of Statistics**, Macao has been able to generate a MOP\$292.100.000.000 Gross Domestic Product (GDP) in 2011, and it is expected to increase its profits this current year.



02. A new urban era for Macao in the 21st century

continues to heavily rely on the gambling industry, which is greatly influenced by the Chinese visitors, and thus, an eventual slowdown in the PRC's economy could severely harm the city's funds. What is more, the positioning of Macao as a gambling capital requires constant upgrading of its resources in order to face competition offered by other nearby rising contenders such as Singapore or possibly South Korea. Thereby, there is an urgent demand for the diversification of Macao's economic anchors and its visitors origins.

To deal with these adversities, urban management must be conducted on an entrepreneurial basis. Inexorably, the MSAR's political discourse behind its expansion choices demonstrates the importance of introducing marketing strategies into all levels of planning, but mainly into urban and tourism planning. Therefore, the city is expanding beyond its limits. As demonstrated in Chapter II, in the upcoming years a vast redesign of the city will take place, affecting both its morphology and its image. The new landfills plan, the joint venture on Hengqin island and the improvement of the transportation network are to be acknowledged as a means to accommodate the increasing incoming population, to multiply the economic display of industries and to allow a seamless flow of residents, tourists and entrepreneurs between the territory of Macao and its surroundings. In sum, these projects may cement Macao's competitive advantages within the GPRD.

However, such comprehensive management implies the necessity of an integral custom-made long term planning in urban and tourism development, which should be rapidly implemented to prevent land misuses, environmental degradation or any prejudicial kind of commoditization effect such as the *disneyfication* of Macao's historic centre or even of its renovated waterfronts. As ironically noted in *Learning from Las Vegas*, there is no opposition to ornamenting the building, but one should never follow the reverse order.²⁰¹

The emerging landscape of the *new* Macao is becoming worldwide known through images of large scale redevelopment sites, iconic architecture and pretentious design. But the most influent marketing actor - the MSAR government - is *behind schedule*, still insisting mainly on the marketing of the nostalgic aura provided by the historic centre, regardless of the MGTO's influence on the territory's urban planning. So far, the new projects seem to have been left out of the marketing campaigns, despite the ever present reference to Macao's new image in the official communications.

In fact, Macao is not allowed to miss out its historical and distinguishing background. Unlike Las Vegas, this Asian territory has a secular culture manifested on its urban fabric that makes the city so unique within its surroundings. But once again, only by means of a very well laid out master plan, will the authorities be capable of coordinating all the future projects and still manage to integrate them with the historical sites and views. The cycle is vicious: under orders from UNESCO, safeguard heritage legislation has to be developed and implemented quickly and effectively so that the city can sustain the industry that in turn has been sustaining Macao: tourism.

²⁰¹ PUGIN apud VENTURI, Robert; IZENOUR, Steven; SCOTT BROWN, Denise - **Aprendiendo de Las Vegas**, 2000. p.212.



03. Macao's Nam Van & Sai Van Lakes

Macao represents a very peculiar situation where the World Heritage is imposing restrictions that are influencing the city's development. It is not only about isolated buildings, circumscribed centres and their buffer zones but, more importantly, it involves urban layouts and visual alignments that might be *disturbing* the achievement of the desired image, but whose unique characteristics are the true essence of Macao's singular urban fabric and thereby, cannot be neglected.

Indeed, some of Macao's advantages are also its own restrictions and it is important to learn how to *play* them prudently. One of the main challenges for Macao is to respond to these constraints while giving place to a real milestone in terms of urban expansion. The MSAR government has become aware of such urgency and adequate legislation is being prepared, but still to come are a proper urban and tourism master plans. Will those be ready on time to prevent a patchwork outlined city?

On the other hand, given the large array of regional plans mentioned in Chapter I, a thriving long-term planning for the GPRD appears to have been successfully set up. The less certain aspect is whether these intentions leave any opportunity for the MSAR's self ambitions to flourish. Without regulatory plans and despite all the public controversies, debates and consultations, Macao seems to remain partially dependent on decisions made beyond its borders.

If it wasn't quite awkward already that the territory has no jurisdiction over its coastal waters, thus having to ask for permission to the PRC to set the new landfills, Macao is also relying on external institutions to design them and has been passively left out of the Hengqin island planning. Despite having been given a lot for the construction of the new university campus, local enterprises have had little or none influence in this joint project. Indeed, if the *art* of planning has become an instrument of analysis and negotiation reflecting the potential and the limitations of a determined society, ²⁰² in the case of Macao it has also revealed a fair amount of powerless initiative and autonomy.

In the past, an ancient Chinese saying was often cited in reference to this vast area known today as the GPRD. The mountains are tall and the emperor is far away²⁰³ seemed to fit perfectly the political context of those days, but it really does not apply to it anymore, given the wide variety of plans promulgated by the PRC in this region. In fact, if the inclusion of Macao in The Outline of the Plan for the Reform and Development of the Pearl River Delta (2008-2020) wasn't already a powerful statement, under the People's Republic of China 12th Five-Year Plan (2011-2016) the MSAR (as well as the HKSAR) has been explicitly integrated in the national policy for the first time, which has been taken as a sign of a new political attitude from the PRC towards Macao.

Indeed, Macao does not fit into the tabula rasa concept and its future now depends on an intelligent strategic planning, fully conscious of the city's advantages, limitations and affordable aspirations. So does the PRC central government, whose influence over Macao's planning is overwhelming. The success of its GPRD vision is only possible if all the regional plans are compatible within the various authorities. Perhaps the implementation of a specific commission,

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²⁰² ASCHER, François - **Novos Princípios do Urbanismo & Novos Compromissos Urbanos**, 2010. p.81.

²⁰³ CAMPANELLA, Thomas - **The Concrete Dragon: China's urban revolution and what it means for the World**, 2010. p.29.



04. View of the crowded St. Paul's Ruins area

including representative elements of the local governments, could efficiently overrule the region's development strategy. This way, instead of a wide variety of plans and agreements released by all sorts of commissions and research groups, the GPRD could actually have a main task force responsible for the coordination and implementation of the desired objectives for the region. Moreover, maybe Macao could have a superior and more influential say on its future.

Nonetheless, can we still learn with Macao?

"Despite the evident changes [...] one continues to acknowledge the city as historic centre and the countryside as typical village. Everything else is unknown, to be avoided or named after vaque concepts." 204

Is Macao challenging these paradigms? It may require a great deal of imagination to picture all the mentioned projects simultaneously being implemented, but with construction works now well underway, in a few years a new urbanity will be born and Macao may experience an equally striking transformation as the one occurred in the first years of the new governance. Several other cities have undergone extraordinary changes as well, but Macao's impending revolution is not only huge in size, but it is also out of the models presented in most urban planning-related books.

By the facts provided along this journey, it is easily apprehended that this city-making approach intends to be more than a urban makeover or beautification. It is not a case of a *Guggenheim effect*, neither it is an example of some kind of gentrification or revitalization of a single area. One can take, for instance, the universal exhibitions as main examples (Sevilla, Lisbon or Shanghai) and still conclude that Macao is on the verge of a wider transfiguration, not only urban, but also social and economic.

Whether it prompts new planning concepts is quite controversial, but the projects presented in *How to sell Macau* surely bring to light a couple of important matters that represent a fresh attitude towards the territorial planning. **Mobility** is understood as a key force allowing the creation of an **intertwined metropolitan region**, vanishing borders, broadening both the residents living area and the tourists travelling options, while enhancing the influence of the **cityscape** on the city's realm.

Macao's nostalgic colonial impression has swiftly disappeared; Macao has lived years of astonishing urban growth, and will certainly live days of euphoria when all the new projects are complete. As shown in Chapter I, the city is already used to such permanent urban transformation, which only reflects the city as a powerful symbol of its dominant society, revealing the political and social changes undergone by the territory. Indeed, two different visions have been in play. Firstly by the Portuguese administration, and now by the MSAR government in agreement with the PRC's central government. One may wonder if the latest planning will resume Macao to yet another generic city. Despite the efforts to preserve its uniqueness, real-estate pressure is a real menace, thereby only a reasonable management can efficiently take control of the circumstances.

²⁰⁴ DOMINGUES, Álvaro - **Geografia Urbana Contemporânea.** [Online]. [translated by the author]



05. Learning with Macao

"Macao não é Veneza interpretada por Las Vegas ou alumínio interpretado por croupiers.

Macao também é Macao.

Sobrecarregada de gaiolas e parafernália mas de escala comum e amável.

Amigável à noite; de pequena luz aberta. Restaurantes e bares. Pequenas mesas; conversa animada.

Sucessão de ruas entrelaçadas em topografia suavemente acidentada.

Casas com um pequeno comércio que cruza linguagens.

Reconhecemos a Água do Luso, que vem de longe. Mas bebemos sempre Tsingtao.

"Petiscos apetitosos" anunciam-se em português de néon antigo, junto à Fundação Oriente.

Ao lado dos caracteres chineses, belos e indecifráveis, os ocidentais parecem prosa.

Percebe-se porque é que muita gente foi ficando, e continua a voltar.

Macao não é Las Vegas.

Em Macao também se respira o ar da noite."²⁰⁵

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²⁰⁵ FIGUEIRA, Jorge - **2011 Macau,** 2011. p.28.

Appendix I

ZONE A ¹	PRELIMINARY PLAN I	PRELIMINARY PLAN II	
Planned	60 thousand	57 thousand	
population			
capacity		2	
Population density	43 thousand/Km ²	41 thousand/Km ²	
Number of	About 20 thousand	About 19 thousand	
household units *			
Land use	The land is primarily intended for residential purposes, public infrastructures, tourism and cultural facilities and green spaces.		
Main public	Cultural facilities: library, exhibition infrastructures and cultural equipments		
facilities	Tourism, conventions and exhibitions: tourism facilities, exhibition and convention centres.		
	Medical care: Health Centre.		
	Educational facilities: educational establishments and youth activities facilities.		
	Social facilities: establishment of social services.		
	Sports facilities: Sports Hall/Stadium.		
	Public service: administrative structures.		
	Municipal facilities.		
	Infrastructure: wastewater treatment plant and fuel intermediate warehouse.		
	Transit facilities: complete road transit scheme.		
	Security installations.		
Urban texture	Extension of the old city's diverse layout	Regular layout	
Road system	Outer ring on the east side.	Outer ring on the central axis.	
Light rapid transit	Three stops and a control station located	Four stops and a control station	
system	in the northwestern area.	located in the northern zone.	
Landscape system	Leisure Bay area comprising the west shore and the Outer Harbour.	Main landscape along the central longitudinal axis.	
Key	Wastewater treatment plant, electricity	Electricity substation.	
infrastructures	substation and fuel intermediate warehouse.		
Green areas	Green corridor on the western side.	Green corridor along the central	
scheme		longitudinal axis.	
Outer Harbour	Relocation of the Outer Harbour Ferry	Relocation of the Outer Harbour Ferry	
Ferry Terminal	Terminal	Terminal's Heliport .	
	*Note: based on the area of a T2 unit		

01. Zone A: table of uses

¹ Land, Public Works and Transport Bureau of the Macao SAR - **Anteprojecto do plano director das novas zonas urbanas**, 2011. p.34.



02. Zone A: preliminary plan 1



03. Zone A: preliminary plan 2



04. Zone A: Transportation schemes preliminary plan 1 [left side]; preliminary plan 2 [right side]

Appendix II

ZONE B ²	PRELIMINARY PLAN I	PRELIMINARY PLAN II
Planned	The plan does not include residential areas.	6 thousand people
population		
capacity		
Population densit	у	13 thousand people/Km ²
Number of building units *		about 2 thousand
Land use	Only cultural and tourism facilities and	Cultural and tourism facilities, public
	public services.	services and residential areas.
Main public	Cultural facilities: library, cultural venues.	
facilities		
	Educational facilities: educational establishmen	nts and youth activities facilities.
	Public services: administrative and judicial serv	rices.
Road system	The outer ring is set to be underground in bot	h plans.
Skyline	Buildings on both sides of the Governor	Buildings on both sides of the
	Nobre de Carvalho bridge are lower than the	Governor Nobre de Carvalho bridge
	surrounding ones, forming an uneven	are relatively high, forming a flat
	skyline.	skyline.
Landscape	Due to the moderate intensity of	The intensity of development is
	development, it preserves the visual axis	slightly higher, balancing
	from Penha Hill to the shoreline.	development and heritage
		conservation.
	Note: based on the area of a T2 unit	

01. Zone B: table of uses

² Land, Public Works and Transport Bureau of the Macao SAR - **Anteprojecto do plano director das novas zonas urbanas**, 2011. p.50.







02. Zone B: Preliminary plan 103. Zone B: Preliminary plan 204. Zone B: view over the waterfront line

Appendix III

Zone C, D, E ³	PRELIMINARY PLAN I	PRELIMINARY PLAN II	
Planned	40 thousand people	67 thousand persons	
population			
capacity			
Population	24 thousand people/Km ²	41 thousand people/Km ²	
density			
Number of	13 thousand	22 thousand	
building units *			
Land use	The zone C is intended primarily for housing. The zone D serves mainly for trade and housing.	The land of zone C and D are intended mainly for housing and trade.	
	Zone E is mainly occupied by service structures		
Main public	Educational facilities: educational establishments and youth activities facilities.		
facilities	Social facilities: establishment of social services		
	Sports facilities: Sports Hall/Stadium.		
	Medical care: health centre.		
	Municipal facilities. Infrastructure: wastewater treatment plant.		
	Public services: administrative services.		
Road system	Slow mobility system on the northern coast.	Slow mobility system centred on the inner side of the proposed bay.	
Light rapid transit system	Crosses zones D and E1 and has three stops.	Crosses areas C, D, E1, and has five stops.	
Key	The zone offers recycled water stations and	The zone offers recycled water	
infrastructures	fuel intermediary warehouse.	plant and wastewater treatment plant.	
Urban texture	Traditional blocks layout with eco-friendly characteristics.	Regular arrangement, promoting an urban image of high intensity development.	
Green areas scheme	Coastal green corridor on the northern coast.	Public green spaces on the southern coast.	
Landscape system	Addressing the height restrictions, it maintains the visual connection between the Taipa hills and the seashore.	Reserves a large visual corridor between the Taipa hills and the seashore.	
Skyline	It maintains a regular skyline, enhancing the natural background.	Uneven skyline.	
	Note: based on the area of a T2 unit		

01. Zone C, D and E: table of uses

³ Land, Public Works and Transport Bureau of the Macao SAR - **Anteprojecto do plano director das novas zonas urbanas**, 2011. p.67.





06. Zones C, D, E: aerial view of the preliminary plan 1 07. Zones C, D, E: aerial view of the preliminary plan 2



02. Zones C, D, E: visual alignments in the preliminary plan 1
03. Zones C, D, E: visual alignments in the preliminary plan 2
04. Zones C, D, E: transportation scheme in the preliminary plan 1
05. Zones C, D, E: transportation scheme in the preliminary plan 2

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Chapter II

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Section 3_TRANSPORTATION NETWORK

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Conclusion

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Appendix A

- 01. Land, Public Works and Transport Bureau of the MSAR Anteprojecto do plano director das novas zonas urbanas texto para consulta: 2ª fase de auscultação pública do plano director das novas zonas urbanas (2011.10.22-12.23). Macao: Land, Public Works and Transport Bureau of the MSAR, 2011. p.34.
- 02.Ibidem, p.24.
- 03. Ibidem, p.25.
- 04. Ibidem, p.30.

Appendix B

- 01. Land, Public Works and Transport Bureau of the MSAR Anteprojecto do plano director das novas zonas urbanas texto para consulta: 2ª fase de auscultação pública do plano director das novas zonas urbanas (2011.10.22-12.23).
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- 02. Ibidem, p.40.
- 03. Ibidem, p.41.
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Appendix C

- 01. Land, Public Works and Transport Bureau of the MSAR Anteprojecto do plano director das novas zonas urbanas texto para consulta: 2ª fase de auscultação pública do plano director das novas zonas urbanas (2011.10.22-12.23). Macao: Land, Public Works and Transport Bureau of the MSAR, 2011. p.67.
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- 04. Ibidem, p.63.
- 05. Idem.
- 06. Ibidem, p.67.
- 07. Idem.