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ANALYSIS GRID FOR THE INTEGRATION OF HERITAGE IN A MOVING CONTEXT

*Case study of Chennai Central Station and
its surroundings, India*



DAUDU Solenn

2012-2013

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Directrice de recherche: VERDELLI Laura

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Le travail de recherche, dont l'objectif de base est d'acquérir une compétence méthodologique en matière de recherche, doit répondre à l'un des deux grands objectifs :

Développer toute ou partie d'une méthode ou d'un outil nouveau permettant le traitement innovant d'un problème d'aménagement,

Approfondir les connaissances de base pour mieux affronter une question complexe en matière d'aménagement.

Afin de valoriser ce travail de recherche nous avons décidé de mettre en ligne les mémoires à partir de la mention bien.

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<<

- But why do you like India?

- I don't know. Maybe because it feels like home.

>>

PART I	25
Presentation of the research framework	25
1 GETTING INTO THE PROBLEM OF THE RESEARCH SUBJECT	27
1.1 GLOBAL REFLEXION ABOUT CULTURAL HERITAGE.....	27
1.1.1 <i>Heritage</i>	27
1.1.2 <i>'Inheritance'</i>	29
1.1.3 <i>Conservation</i>	32
1.1.4 <i>Development</i>	40
1.2 INTRODUCTION INCLUDING STATEMENT OF PROBLEM	44
1.2.1 <i>About Indo-Saracenic Architecture in Chennai</i>	44
1.2.2 <i>The choice of the Case Study</i>	44
1.2.3 <i>Problematic</i>	47
1.2.4 <i>Research hypothesis</i>	47
2 METHODOLOGICAL APPROACH	47
2.1 NEED FOR THE STUDY	47
2.2 AIM AND OBJECTIVES	48
2.3 SCOPE AND LIMITATIONS	48
2.4 DATA IDENTIFIED AND COLLECTED	48
PART II	51
Presentation and context of the case study	51
1 GENERAL INFORMATIONS ABOUT THE CONTEXT	53
1.1 ABOUT CHENNAI CITY	53
1.1.1 <i>Geographical context</i>	53
1.1.2 <i>History in a wink</i> "	54
1.1.3 <i>Demographics</i>	57
1.1.4 <i>Economy</i>	58
1.1.5 <i>Environment</i>	58
1.1.6 <i>Administration</i>	59
1.1.7 <i>Structure of the city and Planning</i> ⁷³	59
1.1.8 <i>Transport</i> ⁷³	60
1.1.9 <i>Culture</i> ⁷³	61
1.1.10 <i>The Indo-Saracenic architecture in Chennai</i>	62
1.2 CHENNAI CENTRAL STATION AND ITS SURROUNDINGS	64
1.2.1 <i>Geographical context</i>	64
1.2.2 <i>Historical context</i> "	67
1.2.3 <i>Structure of the study area</i>	68
2 STATE OF THE ART OF THE HERITAGE POLICIES IN CHENNAI	73
2.1 A GLOBAL VIEW OF HERITAGE CONSIDERATION IN THE CITY	73
2.2 CONCERNING THE STUDY AREA	75
3 PRINCIPLES OF HERITAGE CONSERVATION APPLIED TO THE CASE STUDY	75
4 BROAD BASED FINDINGS	76

5	PROBLEMS	77
6	ISSUES	78
6.1	GLOBAL CONTEXT	78
6.2	THE STUDY AREA CONTEXT	79
6.2.1	<i>Central Station</i>	79
6.2.2	<i>The heritage buildings</i>	79
6.2.3	<i>Other issues</i>	79
PART III		83
An analysis grid for the integration of Chennai Central Station and its surroundings		83
1	INTRODUCTION	85
2	LITERATURE REVIEW ABOUT CONSERVATION	85
3	IDEAS FROM OFFICIAL DOCUMENTS AND CHARTS ABOUT CONSERVATION	88
3.1	ICOMOS (International Council on Monuments and Sites)	88
3.1.1	<i>Charter for the Conservation of Historic Towns and Urban Areas (Washington Charter 1987)</i>	89
3.1.2	<i>Nara Document on Authenticity (1994)</i>	89
3.1.3	<i>International Cultural Tourism Charter: Managing Tourism at Places of Heritage Significance (1999)</i>	90
3.1.4	<i>ICOMOS Charter- Principles for the Analysis, Conservation and Structural Restoration of Architectural Heritage (2003)</i>	91
3.1.1	<i>The Valletta Principles for the Safeguarding and Management of Historic Cities, Towns and Urban Areas (2011, update of 1987)</i>	92
3.2	UNESCO (United Nations Educational, Scientific and Cultural Organization)	93
3.2.1	<i>Operational Guidelines for the Implementation of the World Heritage Convention (2008)</i>	93
3.3	INTACH (Indian National Trust for Art and Cultural Heritage)	95
3.3.1	<i>Charter for the Conservation of Unprotected Architectural Heritage and Sites in India</i>	95
4	ANALYSIS OF THE DATA FOUND	98
4.1	HERITAGE: VALUES AND OPPORTUNITIES	98
4.2	PUBLIC PARTICIPATION AND PROFESSIONALS INVOLVEMENT: KEYS TO CONSERVATION	99
4.3	FOCUS ON URBAN PLANNING	99
5	CONSTRUCTION OF THE GRIDS	101
6	QUICK DESCRIPTION OF THE GRIDS	102
6.1	HISTORICAL AND ARCHITECTURAL CONTEXTS	103
6.2	POLICIES, LAWS AND STAKEHOLDERS	103
6.3	PLANNING DOCUMENTS	103
6.4	PUBLIC AWARENESS AND INVOLVEMENT	103
6.5	CULTURE, TOURISM AND ECONOMY	103
6.6	ENVIRONMENT, LANDSCAPE AND DESIGN	104
6.7	ACCESSIBILITY FOR EVERYONE	104
7	THE PROPOSED ANALYSIS GRID	105

8	WHAT FUTURE(S) FOR THE CHENNAITE IMPERIAL HERITAGE?	118
8.1	5 POINTS TO BE CONSIDERED FOR A BETTER CONSIDERATION OF HERITAGE	118
8.2	A CONSERVATION MANAGEMENT PLAN	119
	8.2.1 <i>What is a Conservation Management Plan?</i>	119
	8.2.2 <i>In what case is it used?</i>	119
	8.2.3 <i>What does it contain?</i>	120
	8.2.4 <i>How can it be applied to the case study?</i>	122
8.3	A CONCEPT: THE CAR-FREE AREA	122
	8.3.1 <i>Getting into the accessibility problem</i>	122
	8.3.2 <i>Presentation of the concept</i>	123

LIST OF FIGURES

Figure 1: Panorama of the Chennai Central Railway Station.....	45
Figure 2: Localisation of the case study in Chennai	46
Figure 3: Localisation of Chennai in India.....	46
Figures 4: Map view and aerial view of Chennai, Tamil Nadu, India	53
Figure 5: Division Maps of Chennai.....	60
Figures 6: Some pictures of the area (<i>Source: personal</i>)	65
Figures 7: Chennai Central Railway Station	69
Figures 8: The Victoria's Public Hall	70
Figure 9: The Ripon Building, seat of Chennai Corporation.....	71
Figures 10: The Southern Railway Headquarters.....	72
Figure 11: The Chennai Metro Rail station next to Central - Intermodal links.....	80
Figure 12: Modelisation of the future skywalk near Central Station	81
Figure 13: Shanghai, China	124
Figure 14: Fazilka, India	124
Figure 15: Chongqing, China.....	124
Figure 16: Shun Chi Sun City, China.....	124

LIST OF SYMBOLS

CMDA Chennai Metropolitan Development Authority

ICCROM International Centre for the Study of the Preservation and Restoration of Cultural Property

ICOMOS International COuncil on MONuments and Sites

INTACH Indian National Trust for Art and Cultural Heritage

UNESCO United Nations Educational, Scientific and Cultural Organization

INTRODUCTION

In all this project will be considered only the tangible heritage. The intangible heritage is not relevant for the research study conducted.

<<

A nation that has no cultural heritage is like an orphan who has nothing to feed upon.

An individual human being, a race or a nation must necessarily have certain roots somewhere. India is deep rooted in the culture of her past - the glorious past. India is a vast country, and centuries old. It is difficult to sum up her heritage in a few words.

[...]

The most prominent feature of India's culture is that it combines many cultures. India is a land of great variety and many influences have worked to produce modern India.

India has shown great capacity for absorbing what came to her from outside.

>>¹

Based on this observation, we become aware that heritage is not just a question of taking care of something material. It is way more than that. It is about the history, the traditions, the image, the landmarks and the identity of a place. In a World where globalization tends to spread everywhere, it is very important to keep what makes a place different from another one. And even more in developing countries, where the development can sometimes be very fast and not always controlled.

The tangible heritage of Chennai is often unsuspected, and cities like Mysore, Madurai or Thanjavur for example are more cited when coming to significant cultural heritage in Tamil Nadu. Chennai city is more known for its intangible heritage, mostly composed by music, dance and film industry. Yet the cultural built heritage of Chennai is not insignificant. The fact that an architectural style, especially hybrid, is born in the city should be enlighten. It should be something that the city can be proud of. But for this, appropriate conservation and management have to be implemented.

Chennai Central Station is the heart of this project and the heart of the study area. But it is more than that, it is the heart of Chennai, as it is a landmark and the major station of the city. Like a heartbeat, it vibrates with the activities spread on the area; and the people and vehicles practising the site everyday, going from one place to another, are like its veins.

¹ <http://www.preservearticles.com/201103244672/cultural-heritage-of-india.html>

How can heritage be preserved and enhanced if effective policies and frameworks do not exist? How can the identity of the place can be enlighten if people are not aware of it? How can heritage be part of the planning strategies if it is considered only in an architectural view? How can heritage stay the landmark of a city when everything around is changing? Then, how to integrate built heritage in a moving context?

These are some questions that were raised all along the research project, when talking to professionals, when knowing more about the city and the study area.

The aim was then to produce something that could be useful to the decision-makers, planners, politics and other conservation architects, in order to make them aware something really needs to be done in order to protect their identity. Everyone knows heritage has to be protected, but no significant action seems to go in this direction. It is true that there are more urgent questions to be solved in the city. Yet, what is believed in this project, is that consideration upon heritage can result in its wake other more global considerations.

What is meant is that if people become aware of the importance of preserving heritage itself and its surroundings, by keeping it clean, less polluted, and respected, this view would be adopted even in places where there is no heritage. Because the first aim to any planning strategy and policy is to improve the quality of life of people.

In this report, have then been studied questions concerning the evolution of heritage, Chennai as a whole and the city's considerations of heritage, guidelines given by official documents and the data found were analyzed. The methodology followed is also described. The final part of the report presents the analysis grid which humble aim is to integrate built heritage, here Chennai Central Station and other heritage buildings, in a moving context, here the surroundings and the city itself.

PART I

Presentation of the research framework





1 GETTING INTO THE PROBLEM OF THE RESEARCH SUBJECT

1.1 GLOBAL REFLEXION ABOUT CULTURAL HERITAGE

1.1.1 *Heritage*

When it comes to giving a definition of what is heritage, we get various answers. That because each author has his own culture, his own story, his own science and so each author can have his own definition of what is heritage.

Anyway, it seems that the notion "*world heritage*" was born in the seventies. It probably corresponds to a transfer of the "*heritage*" notion, which was initially very European, to other countries all over the World.²

Cultural heritage can be defined in many ways, depending on the sources. Here are some of them, chosen because they all complete each other and give a general view, even if not exhaustive, of what heritage is.

*"Heritage: Property that is or may be inherited. Valued things such as historic buildings that have been passed down from previous generations - ORIGIN Old French."*³

This definition confirms that probably the origins of the notion of heritage come from Europe, because the roots of the '*heritage*' word are french. Also, it is not clear about the nature of heritage, because '*property*' can be material or immaterial. It claims that there is a link with the history and suggests that heritage come from the past to be brought in the future.

*« Le vocable « patrimoine » désigne d'abord étymologiquement l'ensemble des biens hérités d'un père, puis, par extension, tout ce qui vient de nos prédécesseurs. Il peut alors être purement matériel, mais également culturel et immatériel. Il contribue à donner un caractère particulier à un individu, une famille, une communauté, un pays. »*⁴

This definition completes the preceeding. It affirms that when we talk about heritage, we talk about something coming from the past, and it is something that we inherited, so there is an attachment relationship. Here it adds that heritage has various natures and suggests that heritage can give an identity to a given entity.

² LAZZAROTTI, VIOLIER, 2007

³ OXFORD UNIVERSITY PRESS, 2005.

⁴ ATEA-CRIDEL, 1997

« Le patrimoine désigne tout objet ou ensemble, naturel, culturel ou immatériel, qu'une collectivité reconnaît pour ses valeurs de témoignage et de mémoire historique en faisant ressortir la nécessité de le protéger, de le conserver, de se l'approprier, de le mettre en valeur et de le transmettre. »⁵

Here the definition also suggests that heritage has different natures, and adds that it is the choice of a community to recognize it as something we should not forget. So the society has a leading role. What is also important here is the fact that the definition deals with the future of heritage, which we should keep and protect.

« Ensemble des monuments, objets, sites et traditions ayant une valeur locale, nationale ou mondiale du point de vue de l'histoire, de l'art, de la science ou des techniques et qui constituent l'héritage d'un territoire, d'une civilisation ou d'un groupe humain. Le patrimoine culturel comprend le patrimoine architectural et artistique composé notamment des monuments historiques, des sites archéologiques, des collections de musée et bibliothèques, des archives, ainsi que le patrimoine ethnologique incluant notamment les techniques et savoir-faire traditionnels, les modes de vie et d'organisation sociale d'un territoire. Le patrimoine culturel transmet l'histoire d'un pays ou d'une civilisation, permet le lien matériel avec le passé et est constitutif de l'identité d'un territoire. »⁶

This text is more complete than the others as it regroups number of ideas we have already seen: nature, scales, past, society, identity... It is also more precise with some examples for the reader to know better what we are talking about.

"Although 'heritage' includes and derives from a highly individualized notion of personal inheritance or bequest (e.g. through family wills and legacies), HUMAN GEOGRAPHY is concerned with collective notions of heritage that link a group to a shared inheritance. In this context, heritage usually denotes two related sets of meanings. On the one hand, it refers to iconic CULTURAL LANDSCAPES or, usually and more specifically, to TOURISM sites with an historical theme that have often been protected or preserved in some way for the nation-state and become part of the 'heritage industry'; for example, a museum or an archeological site (Urry, 2002 [1990]). On the other hand, heritage refers to a suite of shared cultural VALUES and MEMORIES inherited over time and expressed through a variety of cultural PERFORMANCES [...]. The basis of this group identification varies across time and space and can hinge on allegiance derived from, for instance, a communal religious tradition, a class formation, geographical propinquity, and a national or imperial IDENTITY (Moore and Whelan, 2007)."⁷

This definition suggests that initially heritage was a very personal notion that became step by step a more general one, and even finally a global one, to larger scales. From a family property, the notion is now understood as a collective, a shared property. Then the author links heritage to tourism, because if heritage is collective, it has to be known by others, so it is there where tourism arises, and consequently the need for preservation and protection. Finally appears again the term of 'identity', because even if heritage should be accessible to any person, it represents the values, the traditions, the specificities only of the territory where it is located. Even if heritage seems to be a common notion (even if not understood exactly the same way

⁵ Montreal City, *Politique du patrimoine*, Montreal, 2005, p31, 103p

⁶ ATEA-CRIDEL, 1997

⁷ GREGORY, JOHNSTON, PRATT, WATTS, WHATMORE, 2009

by everybody), the manner of dealing with it is very personal, depends on time and space and belongs to each community who has something considered as heritage.

« Du latin patrimonium, "bien d'héritage qui descend, suivant la loi, des pères et des mères à leurs enfants" (Littré). [...]

Aujourd'hui, sous la double poussée de l'historicisme croissant et surtout de la prise de conscience des dangers et menaces engendrés par l'industrialisation, l'urbanisation et les nuisances qui en sont solidaires, ce terme en est venu à désigner la totalité des biens hérités du passé (du plus lointain au plus proche). »⁸

This text begins with a very basic and old definition of heritage (*Emile Littré, French lexicographer and philosopher, 1801-1881*). Then it continues by explaining what are the issues and threats today: the need for history sometimes fighting with the need for modernism, the quick development of cities, and everything linked to it (growing population, activities, residential areas, transports, for example)... have as a consequence an "over-inheritance".

Finally, according to all the authors, there are multiple dimensions in which heritage can be understood in. Some of these dimensions are more social questions (identity, legacy, community...), historical questions (where do we come from, memory...), economical questions (tourism, wealth...) for example. And it seems that if in some territories heritage is completely accepted, in others it is fighting to survive because of the growing demand in space due to the development of urban cities.

Anyway, another question we could ask is: is all the heritage need to be protected? Is it not a way to hang on our past, refusing to move forward?

In this research project, we will assume that the heritage studied there has a great value, in various terms like social (identity and community), history (rare architecture and memory) and economy (outdoor and domestic tourism mainly).

1.1.2 'Inheritance'

The first consideration of heritage is, as said before, surely occidental, and with the help of tourism democratisation in the 60s, the notion of '*monument*' becomes progressively the notion of '*heritage*', which goes beyond the first one. '*Heritage*' becomes an official term when employed in 1972 for the signature of the '*World Heritage Convention*' of UNESCO.⁹

Questions are why are we valuing some objects when others are not valued? What are the reasons that make an object become heritage?

⁸ MERLIN, CHOAY, 2010

⁹ LAZZAROTTI, *Patrimoine et tourisme: Histoires, lieux, acteurs, enjeux* (2011)

Inheritance is defined as a selective process which positively qualifies an object.¹⁰ It can be interpreted as a social process by which social actors give a set of properties or recognized values to objects, spaces or practices. Inheritance is being acted on what is 'dead', on vestiges, on what is extinguished. Very few living objects (apart from nature) benefit from it.^{11,12}

Inheritance can also be defined as the designation of an object as heritage. It is a selection among others possible and a qualification which will decide the type of use that will be done on the objects. The postulate here is that originally heritage does not exist, it is socially constructed.¹³ Inheritance is at the same time recognizing the value of some elements of the past as well as recognizing these elements are disappearing.

It can sometimes be considered as a practice, or sometimes as an analysis category. It is mostly seen as dynamic and functioning step by step, which could be the following:

- *"discovery of the object,*
- *certifying origin,*
- *establishing the existence of the original world,*
- *representation of the original world by the object,*
- *celebration of the discovery of the object by its exposure,*
- *obligation to transmit to future generations."*¹⁴

The term inheritance is also dynamic since the appropriation of heritage depends on the time and the trends, and evolves with the years. If inheritance is practised, it is also the reflection of the current political, socio-economical and cultural context.

For most of the researchers, the inheritance process is just a succession of practical or technical operations, like renovation, rehabilitation, conservation, listing, etc, which result in the reinstatement of objects considered as heritage.¹⁵

During the inheritance process, a value judgement is made, since it recognizes elements to be important historically, culturally, esthetically, etc, and not some others. This is how tangible or intangible objects become heritage, by words and criteria scientifically and juridically distinguished and symbolically remarkable. Tourists, by their simple actions of being curious and visiting a significant place, become producers of heritage. Little by little, the territory becomes a place of memory.

¹⁰ BAILLEUL, MARTOUZET, *Patrimoine et affects ou le rapport entre le « nous » et le « je »*

¹¹ LAZZAROTTI, VIOLIER, *Tourisme et Patrimoine, Un moment du Monde* (2007)

¹² VERDELLI Laura, PINI Daniele, *Planification et gestion du patrimoine urbain et paysager - Planning and management of urban and landscape heritage*, Bononia University Press, (2012) 248p.

¹³ LAZZAROTTI, VIOLIER, *Tourisme et Patrimoine, Un moment du Monde* (2007)

¹⁴ AMOUGOU, *Sciences sociales* (2011)

¹⁵ AMOUGOU, *Sciences sociales* (2011)

One of the argument used to justify the inheritance, is that actions linked to heritage have the capacity to produce wealth (economical as well as cultural and educational) and to enhance a territory. Basically, the heritage is not relocating.¹⁶

This vision is then imposed to people concerned by the historical elements. It means some may agree, or not, and even some may not be prepared for this. We go from "*this is important*" to "*you have to find it important because the global opinion says it is important, and you are part of this global opinion*". In addition, the inheritance process is lived differently, particularly when it is a place used daily, depending on each one's personal situation, culture, and history.¹⁷ Has the notion of heritage the same meaning in every part of the World? Surely not. Despite globalization, countries have still their own cultures and visions.

Nevertheless, the creation of the Heritage Listing of UNESCO permits the Heritage Monuments and Sites to become recognized as significant values that have to be shared by everyone.

But what about the 'small' urban built heritage, like the one studied in this project, that can be quite young compared to the Monuments? Should it be forgotten because it is smaller, less known? It should not, as said in the definitions of heritage, because it also represents the culture and identity of a territory. Talking about urban built heritage, the imperial one is particular, as two visions can interfere: the one which rejects the heritage because it is seen as something downgrading the indigenous culture, and the one which shows respect to the cultural belonging and a symbolic value.

Nowadays what happens often is that some countries do not see the point in listing their heritage buildings. Usually it is due to the good physical state of their buildings, which may be maintained well enough because it is widely used. Then the need for recognition is less. Other reason can be rightly that restoration and maintenance are problematic, they can not or do not want to afford the cost.

The question of the use of inherit is raised, and even sometimes it is said that our time is 'inheriting too much', and the values are decreasing. Some fear that anything can become heritage. Thus do such places should live, at the risk of practising "*inheritance stubbornness*" or should we accept their extinction which is first the one of an activity that already does not exist anymore?¹⁸

Another growing trend is the need to link the heritage object to its context, even if the idea itself is not new. For example we can cite the french laws of 1906 and 1930 aiming at protecting heritage sets; or the creation in France in 1943 of the round protection perimeter of 500 meters, having the protected building in its centre.

¹⁶ LAZZAROTTI, VIOLIER, *Tourisme et Patrimoine, Un moment du Monde* (2007)

¹⁷ BAILLEUL, MARTOUZET, *Patrimoine et affects ou le rapport entre le « nous » et le « je »*

¹⁸ LAZZAROTTI, VIOLIER, *Tourisme et Patrimoine, Un moment du Monde* (2007)

Inside this round, all the elements have to be conserved and preserved.¹⁹ One inconvenient of inheritance could be the transformation of the place which it belongs to. It can be seen negatively, as something which will stop the evolution of this place and close it to further development. Urbanism rules are stricter and more seriously applied.²⁰

This is why appropriate management has to be done, in order to conciliate conservation, protection and development of the past, but the fact that the World is not static implies that future needs to be considered in any project linked to heritage. Especially because these are two modalities on which inheritance can act:

- *"Ideological : Provide a common and apparently sufficient reference to a set of agents acting on the same territory for the emergence of a minimal coherence in projects and actions implemented,*
- *Spatial : Promote tourism, propose a new distribution of the landmarks, an intensification of flows between these places, and a relative deconcentration of stations and landmarks previously recognized."*²¹

In a World constantly moving, conservation can be considered as a reaction. And reaction is a movement. Inheritance acts for past but the transformation of places is done today and order to be remembered later. It is then a real and relevant planning project for a territory which presents cultural significant elements.²²

Finally, the existing object is the foundation of forward thinking. 'Inherit' is no more 'forbid', but 'plan and project', with long-term relationships with society, territory and nature as a basis.

1.1.3 Conservation

To begin, here are some definitions:

"Preservation means maintaining the fabric of a place in its existing state and retarding deterioration.

Restoration means returning the existing fabric of a place to a known earlier state by removing accretions or by reassembling existing components without the introduction of new material.

Conservation means all the processes of looking after a place so as to retain its cultural significance."²³

¹⁹ DENIZEAU, *Le patrimoine mondial* (2008)

²⁰ LAZZAROTTI, *Patrimoine et tourisme: Histoires, lieux, acteurs, enjeux* (2011)

²¹ LAZZAROTTI, VIOLIER, *Tourisme et Patrimoine, Un moment du Monde* (2007)

²² LAZZAROTTI, VIOLIER, *Tourisme et Patrimoine, Un moment du Monde* (2007)

²³ RODWELL, *Conservation and Sustainability in Historic Cities* (2007)

Global Vision

According to some authors, to conserve heritage is equivalent to draw limits on a map. It is to "*insularise*" parts of the space, in order to protect these parts from harm and destruction which is likely to happen. At the same time, it is to free the territory where heritage is, because it will not have anymore to restrain gently as a perimeter around heritage will be defined to safeguard it.²⁴

To some other authors, it is the action to maintain intact or in the same state. Concerning heritage, it can be used in two ways:

- *"it designates administrative bodies responsible for the conservation and protection of heritage in a global sense;*
- *the term "conservation" means the use of technical equipment and processes used to maintain buildings in their integrity. The progress of modern science have been extensively used for this purpose [...]."*²⁵

Le Corbusier underlined the importance of conserving heritage:

"Architectural values must be conserved (individual buildings and urban ensembles).

- *They will be saved if they are the expression of an earlier culture and if they meet the general interest ...*
- *If conservation does not involve the sacrifice of people kept in unhealthy conditions ...*
- *If it is possible to overcome their harmful presence by drastic measures: for example, the deviation of vital elements of movement, even the movement of centers regarded until now as immutable.*
- *The destruction of slums surrounding historical monuments can provide an opportunity to create green areas.*
- *The use of past styles, under the pretext of aesthetics, in new buildings built in the historic areas, has adverse consequences. Maintaining such uses or introduction of such initiatives will not be tolerated in any form."*²⁶

In a theoretical or doctrinal perspective, the notion of '*conservation*' underlies the patrimonial practices in general. But it is not used without difficulty: a building, a built area, a city are constantly changing due to development, their structures and materials can be damaged by time, modifications are imposed to them (additions or removals) and finally their use can be modified in order to answer to new needs.

The responsibility for the preservation of cultural heritage is growing and spreading. In some countries, cultural heritage remains the responsibility of the central state government. In others, it is a shared responsibility. Heritage may also be part of various domains, like landscape and spatial planning, economic development, social cohesion or environmental management for example, depending on the culture and on the vision of the territory.²⁷

²⁴ AMOUGOU Emmanuel, *Sciences sociales et patrimoines* (2011)

²⁵ MERLIN, CHOAY, *Dictionnaire de l'urbanisme et de l'aménagement* (2010)

²⁶ LE CORBUSIER, *La Charte d'Athènes*, Points, Essais (1971)

²⁷ THE LONDON GROUP, *Forward Planning: The Functions of Cultural Heritage in a Changing Europe* (2000)

Professional expertise concerning conservation of heritage is also step by step changing. What can happen is that actors concerned by heritage like architects, archaeologists, landscape architects, planners and ecologists work in separate departments or on separate projects using separate legislation in some countries. That is why more and more the concept of "*integrated conservation*" is taken into account. It means professionals work together on joint projects in order to share their knowledge and implement better projects. New skills are then needed such as social and economics to be able to work with the local communities for example.²⁸

Slowly but surely, a closer co-operation and working between heritage and other indispensable bodies can be seen in some countries. Data on the significant value of heritage is collected and acknowledged. Businesses are beginning to see heritage as a responsibility rather than a barrier to progress. These are the first steps to be taken before hoping an effective conservation process.

Communities are also beginning to realize the values of heritage and of their common identity, and then take responsibility for heritage issues. Some examples in Asia (Jordanian, Vietnam...) have already well shown how local communities can be the necessary mediators between the heritage proposed to tourists and the tourists, under the condition that the touristic object is first of all an element of identity and of pride for the host community. Local people are not only the first concerned by their heritage, but they are also those who can be the project leaders for conservation and development of historic buildings.²⁹

To manage urban growth appropriately, heritage conservation, development, social and economic factors, and physical factors (like forms and functions) must be appreciated and understood by both planners and developers.³⁰

Indeed, heritage planning and other aspects of heritage conservation cannot be treated in isolation. The conservation process should not be excluded of municipal development plans, it should be an integral part of the land use policy and planning. Also, "*maintaining and managing heritage assets are part of a political and economic process. Effective conservation policy takes into account public involvement, public and private initiatives, the planning process, cultural and economic needs and the maintenance of public openness during the decision-making process.*"³¹

General planning strategies cannot be made without considering the importance of the urban context. Then a coherence between the elements of a built environment, may they be old or new needs to be made, and these aspects have to be analyzed and understood before effective planning can be established.

²⁸ THE LONDON GROUP, *Forward Planning: The Functions of Cultural Heritage in a Changing Europe* (2000)

²⁹ BRETON, *Patrimoine, tourisme, environnement et développement durable (Europe – Afrique – Caraïbe – Amériques – Asie – Océanie)* (2010)

³⁰ WANG H. J., LEE H. Y., *How government-funded projects have revitalized historic streetscapes - Two cases in Taiwan*, *Cities*, 25(4), 197-206 (2008)

³¹ COHEN, *Urban conservation* (1999)

What can be said is that what is actually lived is not an era of conservation, but of exposition. The dramatization of heritage is not only recognizing its past value, but it is also a way to actualize it, to make it exist.³²

However, through four major issues, that can be faced in the entire World, tourism can be a problem for the preservation of heritage and of its authenticity:

- *"The problem of the preservation of identity in all its aspects, cultural, spiritual and material posed by the development of tourism;*
- *The specific questions asked to local communities through heritage tourism management;*
- *The clash of cultures that international labels can maybe not protect and sometimes destroy;*
- *The value of heritage as a basis for territorial development."*³³

Also, the need for conservation can be diverted in order to satisfy individual needs, and no more community needs, or decisions are taken without enough consideration and analyze of the context:

- *"recent conflicts have deliberately targeted cultural heritage sites;*
- *there is concern about plural approaches to the heritage because heritage can be manipulated for political aims;*
- *heritage may be seen purely as a state asset which must generate revenue, rather than part of a wider cultural resource;*
- *there are concerns that the cultural heritage will be diluted by becoming part of wider economic or environmental concerns;*
- *lack of resources for implementation in many countries means that heritage remains a marginal activity;*
- *lack of public awareness of significance and fragility of cultural heritage compared to natural heritage;*
- *lack of integration of management of natural and cultural heritage; [...]."*³⁴

What is needed nowadays is not only a policy of conservation for heritage. With the concerns of our modern World, the protection and development of heritage must be done in an sustainable manner. And rightly, sustainable development incorporates a set of basic principles which can be applied to heritage:

- *"understanding the resources as a basis for decisions;*
- *bottom up as well as top down approaches to conservation;*
- *monitoring loss as a basis for informing decisions;*
- *reconciling development and conservation, rather than seeing them as opposing forces;*
- *considering economic, social and conservation aims together rather than separately."*³⁵

³² AMOUGOU Emmanuel, *Sciences sociales et patrimoines* (2011)

³³ BRETON, *Patrimoine, tourisme, environnement et développement durable (Europe – Afrique – Caraïbe – Amériques – Asie – Océanie)* (2010)

³⁴ THE LONDON GROUP, *Forward Planning: The Functions of Cultural Heritage in a Changing Europe* (2000)

³⁵ THE LONDON GROUP, *Forward Planning: The Functions of Cultural Heritage in a Changing Europe* (2000)

Attention should be then drawn to the importance of the local history, traditions and the unique cultures of cities in attracting tourists and promoting economy as a way of managing sustainable urban development. In addition, heritage conservation is a useful tool for historic cities, and even modern cities with just a little part of heritage, because this cultural legacy can serve to solve urban problems and achieve development as well as bridge the gap between preservation, development and urban planning. It provides a long-term strategy for achieving community improvement and development goals and seeks to resolve differences created by past decisions while moving forward into the future.

Indian Vision³⁶

A document concerning the Monument Conservation and Policy in India has been found, but as it was published in 1978, some ideas contained can be obsolete. The text presented here, as it is written in the document to be as faithful as possible to the ideas, is the one that seems to be still topical.

<<

An awareness of India's monuments as a cultural heritage seems to have sprung up during the latter part of the eighteenth century, among British officers serving in different parts of the East India Company's territories.

In 1904 the Ancient Monuments Preservation Act was enacted, defining a monument as "any structure, erection or monument... which is of historical, archaeological or artistic interest". The definition included also the site of the monument, and such portion of adjoining land as might be required for fencing or otherwise to preserve it.

It must be admitted that the interest in the conservation of India's monumental heritage arose not so much from any indigenous concern or traditional system of maintenance, as from the interest of British officers and thereafter from the concern of the Government. By contrast in Britain it was a result of public concern [...].

[...] in India once a satisfactory Act had been passed in 1904 its very success proved inhibitory to further change.

[...] while the Indian legislation, since as long ago as 1873, has tended to vacillate between placing responsibility for monuments upon Central and 'Local' Governments, the latter term, in India refers not to what we would in Britain regard as genuinely Local Government, but to what are in India now referred to as the State Governments.

By a Resolution of 1919 the monuments, both protected and unprotected, were to be classified and listed systematically, according to two criteria, their general state of repair and their ownership. A regular system of inspection was established and a code of practice laid down for repairs to protected monuments.

³⁶ ALLCHIN, HARLE, *Monument Conservation and Policy in India* (1978)

In his Conservation Manual (Calcutta, 1923), Sir John Marshall (1876-1958, archaeologist Director-General of the Archaeological Survey of India from 1902 to 1928) discussed the underlying philosophy of conservation. He stressed the need for preservation of worthwhile monuments, and therefore for intelligent selection and for provision for continuing maintenance once a monument had been preserved. The principles of conservation involved a different approach from that to new work or repairs to a modern building, and at all costs the 'authenticity' was not to be destroyed [...].

When the conservation of monuments in their environment is considered, it seems that the scale of India's economic development and the many changes which it is producing confront the monuments, both protected and unprotected, with a variety of threats and pressures: the rapid growth of the population of cities, with consequent expansion of settled areas, the increasing value of urban land and hence pressure of density of settlement in and around cities, the rapid growth of road transport systems, with road making and widening, [...] etc.

There are requisites for Indian architectural heritage:

- a new and comprehensive listing of monuments, taking as criterion, not state of repair or category of ownership, nor even 'national importance'. Basically a monument should be listed because it is of architectural, historical or cultural importance as a part of India's architectural heritage. [...]*
- there must be adequate provision for the protection of the environment of monuments. Hitherto a monument has been all too often regarded and treated as an isolated unit, at best surrounded by a parcel of acquired land. [...]*
- there must be a consequent listing of monument zones and conservation area. It is only when the new listing of monuments and conservation areas is complete that it will be possible for Government to begin to work out a realistic programme of conservation.*
- provide a suitable scheme for grading listed monuments and conservation areas in terms of their importance for the cultural heritage.*
- the protection of monuments and conservation areas should be linked to these grades. Once a monument has been given a grade it should enjoy a legally defined level of protection, irrespective of its category of ownership, use or function, or any other special features. [...]*
- the new legislation should provide for the necessary procedures to ensure its satisfactory working. [...]*

One possible solution would be to establish Conservation Planning Units (monuments) as branches of town and country planning departments, to be charged with the listing and grading of monuments and conservation areas, the operation of machinery to deal with planning permits affecting monuments or their environments, and the drawing up of long-term conservation plans for historical cities and for urban and rural conservation areas.

To sum up [...] there should be an active programme of education and publicity to make people aware of their national heritage and the responsibilities it involves; there should be new legislation to provide the legal basis for a dynamic programme of conservation; and there should be a new structure perhaps including some of the things mentioned above. Given these three, India can within a short time achieve a comprehensive conservation policy, matching up to current pressures and challenges, and commensurate with the excellence her monuments deserve.

Primarily this is the responsibility of the Indian people, who have to look after their own cultural heritage. This must be a national responsibility, although it may well leave room for international cooperation.

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Thereby, many ideas and solutions have been found years ago concerning the conservation and management of cultural heritage. Still, they may be difficult to implement due to some issues, and maybe a feeling that even if nothing is done, heritage will still be here. Anyway, this proves that documents concerning India's heritage exist and can be a strong basis for future effective conservation processes.

In the article of MURALI Kanta, *Chennai's architectural heritage* (2003)³⁷, more actual ideas are presented and are still fitting to the context of Chennai today. The text is presented here as it is written in the document, in order to be as faithful as possible to the ideas.

<<

Since Independence, many of India's cities have been transformed significantly as a result of economic and population pressures. Over time cities have changed from concentrated and identifiable towns to sprawling urban areas. This growth has usually resulted in a poor quality of life for the average citizen. The pressure on land in urban area has drastically increased its value and often a city's heritage buildings have been sacrificed for more financially lucrative enterprises. On the pretext of urban development, new constructions, which often have scant regard for local conditions and contexts, have damaged the very quality of life they were intended to improve.

Modernisation and conservation are not competing aims and growth needs not be sacrificed at the altar of conservation. Economic growth is vital to any country's future but growth without consideration for the quality of life of the average citizen is meaningless. The lack of a well-rounded approach to town planning has compounded urban problems severely and conservation can be a starting point for planning purposes.

³⁷ MURALI Kanta, *Chennai's architectural heritage*, Frontline Review Article, vol 20 - Issue 10, May 10-23 (2003)

There is a strong cultural and historical rationale behind building conservation:

- architecture is a symbol of the past and a touchstone for future generations*
- heritage has often been dubbed "the cultural capital" of a country.*

A claim often made by politicians is that many heritage buildings in India are symbols of colonial power and do not deserve to be saved. History, however, has to be preserved in its entirety, not merely the more acceptable portions.

S. Muthiah (1930- , Indian journalist and historian known in Chennai for his various works, articles and books on the political and cultural history of the city) accepts that heritage preservation is a luxury and there are more pressing problems. However, he stresses that this does not justify mismanagement or destruction of historical and cultural wealth.

Besides cultural, historic or social reasons, there is a more pragmatic economic rationale for conservation. Preservation efforts world-wide have proved that heritage preservation can be economically rewarding. Through "adaptive reuse", old structures can be upgraded and brought into mainstream activity. The use of heritage buildings and areas for tourist purposes has been perfected in the West but several States in India are beginning to recognize the fact that value can be added to old buildings through creative uses. Heritage buildings can be viewed as a resource and can become self-sustaining projects. In Chennai, there are many areas that are ripe for such reuse. Already some old buildings are used as films sets. Not all reuses need to be tourism based. P.T. Krishnan, well-known architect of Chennai, points out that Moore Market, a Chennai landmark which was demolished in the late 1980s, could have been saved and used as a passenger concourse for the Central Railway station's suburban terminal. He argues that the congestion around Central Station could have been avoided if planners had the foresight to recognise the larger implications of the demolition of Moore Market.

Many believe that it is always more economically viable to destroy old buildings and put up modern constructions. This is not necessarily true. Many heritage buildings are located in older parts of the city where the streets are typically narrow. Development rules prevent the construction of multi-storey structures on such streets. Building rules in Chennai permit greater floor space index (FSI) for any additions or improvements made to existing structures. New structures are permitted a smaller FSI. As such owners of heritage buildings may not be optimising land use when they choose to pull down old structures and build modern constructions. In many places, heritage buildings have acquired the 'antique' tag and appreciated in value when restored to their original condition.

There is false perception that all heritage buildings are decrepit. The fact that most living heritage buildings are being actively used despite little or no maintenance indicates that they are in somewhat fair condition. Living heritage buildings are testimony to the skill and quality of construction in the past. Muthiah estimates that 70

per cent of heritage buildings in Chennai are owned by the government and almost all the others are owned by institutions and entities having the resources to carry out basic maintenance. Some heritage buildings require greater care, but conservationists believe that such buildings can pay for their own maintenance if put to the right use.

Chennai is a veritable reservoir of historic buildings but the State government has been indifferent to the cause of heritage preservation for too long. In the process many buildings, including landmarks such as Spencers, Bentinck's Building and Moore Market, each a little piece of history, have disappeared from the cityscape. Heritage regulations for the city are long overdue.

Chennai is bursting at its seams and there is an urgent need for a holistic approach to town planning that recognises that the old and new can exist together. In 1900, the city was described as a "very charming old lady, gowned in old silks and laces". If the Tamil Nadu government continues to be apathetic towards the city's heritage, the charming old lady will be devoid of most of her old silks and laces.

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1.1.4 Development

Although the values associated with heritage were once only cultural and scientific, planners must now consider social and economic realities, and sustainability.³⁸

At the international level and since the Charter of Venice in 1964, the heritage policies have evolved in space and in time. They have slowly spread to various domains like urbanism, Environment, history and memory. The number of partners has increased; governments, regions and local communities are mobilizing and investing in the development of their rich heritage.³⁹ Still cultural heritage remains often a neglected area in town and country planning. This may be due to the inability of the authors of territorial development schemes to organize a bottom up approach for planning.⁴⁰

In the past, heritage management has mostly been a 'top down' process, with decisions made mainly by experts, regulated by charters and legislation, international, national or local. Then the decision-making process has not always been opened or transparent. What is raising today is the need of involving people.

³⁸ JOKILEHTO J., *A history of architectural conservation*, Oxford: Butterworth Heinemann (2006)

³⁹ LAZZAROTTI, VIOLIER, *Tourisme et Patrimoine, Un moment du Monde* (2007)

⁴⁰ BRETON, *Patrimoine, tourisme, environnement et développement durable (Europe – Afrique – Caraïbe – Amériques – Asie – Océanie)* (2010)

Increasingly decisions are becoming a legitimate matter of public concern: 'bottom up' approach is the one heritage management should tend to reach.⁴¹

The principal development around heritage is undoubtedly tourism. There is no better guarantee to heritage than the attentive caring and consideration duty of each individual. In the last century, the development of tourism has contributed to it, as the possibility of traveling has evolved in a great manner and for lots of people. However, in the last decades, the weakness of the visited sites and the dignity of the host community have been raised as problematics that should not be neglected. This is how the concept of '*sustainable tourism*' was born recently, which requires commitment and direct involvement of visitors and travelers, coming often from the most prosperous countries.⁴²

In most of the cases, tourism is seen as a way to renew, to modernize. What is now existing only in a past form finds new arguments for dynamism. Any heritage policy aims to promote particular facts or elements of a place by making them visible and remarkable, if not directly highlighting them as landmarks for the territory to be spread around.⁴³ The development of heritage with the help of tourism creates a new expression "*patrimonial tourism*". On the one hand, tourism is there to highlight heritage, on the other hand it also creates threats: damage, destruction, theft, overcrowding...⁴⁴

Also, globalization does not touch only economy, but also the circulation of values, lifestyles and standardized cultures. As heritage reflects the wealth and cultural diversity of a place, it should be protected. Since a few years, it is a powerful tool of economic development, since it has a direct link with tourism. However, it hardly resists political pressures, financial, housing and lifestyle changes. Even protected, it has to struggle to resist to the homogenization.⁴⁵

There are some other threats and opportunities that heritage has to face for its preservation and highlighting:

- *"Destruction of heritage: traditional causes of decay, the evolution of social and economic life with more severe effects of impairment;*
- *Degradation of heritage: negative impoverishment of the heritage of all peoples;*
- *Often incomplete protection: insufficient economic, scientific and technical resources;*

⁴¹ THE LONDON GROUP, *Forward Planning: The Functions of Cultural Heritage in a Changing Europe*, (2000)

⁴² DENIZEAU, *Le patrimoine mondial : un héritage à préserver* (2008)

⁴³ LAZZAROTTI, *Patrimoine et tourisme : Histoires, lieux, acteurs, enjeux* (2011)

⁴⁴ LAZZAROTTI, *Patrimoine et tourisme : Histoires, lieux, acteurs, enjeux* (2011)

⁴⁵ 12^e Rencontres de la coopération internationale en Région Centre, Quand les cultures dialoguent, Vinci de Tours, 17 novembre 2012.

- *Conventions, recommendations and international resolutions are in favor of cultural and natural properties;*
- *Necessary to preserve certain properties: exceptional interest;*
- *Complete, without replacing, by the granting of collective assistance, the action of the State concerned;*
- ...⁴⁶

Various dangers threaten heritage: wars, wild urbanism, pollution, anarchic development of transportation, natural disasters... and all are things to consider and deal with when trying to develop heritage and tourism.

The spreading of different ways of living (housing development) and the leaving of traditional ways, to move towards more sustainable living models, come with the development of a country and populations looking for a more comfortable life.⁴⁷

There is no heritage "in itself", which means without reference to history, space and people. Because if the tourist recognition is necessary for heritage to be recognized, it can not be done without a minimum commitment of local society.⁴⁸ Heritage and tourism are then used in favor of a wide local policy. They are the main argument when processing to transform a place which could result in considerable social and human implications. When touristic and patrimonial development are the priority, there can be side effects on the territory. In some cases, the fundamental project is local and territorial. Tourism and heritage are then only tools.

Some operations include a strong cultural dimension. They are accompanied by communication strategies, sometimes understood as "*territorial marketing*". Heritage defines and values, according to the nowadays criteria, the image of the place.

Raising the issue of the use is to go back to the question of utility. The legacy of the nineteenth century has for a long time influenced our perception of heritage. From the dissociation between the building and its use, is born the concept of '*historical monument*', art of the past, witness emptied of its function, not used anymore. This has placed heritage into a new and essential emotional, symbolic, cultural, aesthetic and identity utility. Its uselessness makes the monument supporter of a message and facilitates the sense of ownership.⁴⁹

⁴⁶ DENIZEAU, *Le patrimoine mondial : un héritage à préserver* (2008)

⁴⁷ 12^e Rencontres de la coopération internationale en Région Centre, Quand les cultures dialoguent, Vinci de Tours, 17 novembre 2012.

⁴⁸ LAZZAROTTI, VIOLIER, *Tourisme et Patrimoine, Un moment du Monde* (2007)

⁴⁹ EBLE, WALKER, GOVEN, RAMBAUD, *Reconvertir le patrimoine, Actes des rencontres départementales du patrimoine de Seine-et-Marne : Nouvel usage, nouvelle image, la reconversion du patrimoine bâti* (2010)

The integration of heritage structures with new development can be attractive and economically viable if proper guidelines are set in place. As such, urban policymakers must recognize heritage conservation as a form-function phenomenon that is affected by a series of intervention decisions.⁵⁰ The presence of an urban system which develops in a sustainable way is then important. It has to balance the preservation of the existing heritage, and the sufficient planning of the modern urban fabric needs to be acknowledged.^{51,52} Heritage areas must be places that people want to use and invest in. This is achieved by means of both the revitalization and development of such areas.

Public actors, whose approach should be part of the fabrication of sustainable cities and of a controlled urban densification, play a central role. Reuse to reconnect with the history of the city or to "recycle" buildings as an act of Sustainable Development, convert the heritage while fighting the idea that this approach is more expensive than building... are some goals to be reached.⁵³

In a context of severe economic and financial competition of Southeast Asian cities, the heritage image participates in enhancing the quality of the place. This has to be an asset for the city, something that is there and nowhere else.⁵⁴

⁵⁰ ASHWORTH G., *Heritage planning: Conservation as the management of urban change*, Netherlands: Geo Pers (1991)

⁵¹ AL-KHEDER S., HADDAD N., FAKHOURY L. & BAQAEN S., *A GIS analysis of the impact of modern practices and policies on the urban heritage of Irbid, Jordan*, *Cities*, 26(2), 81-92 (2009)

⁵² AL-HAGLA K. S., *Sustainable urban development in historical areas using the tourist trail approach: A case study of the Cultural Heritage and Urban Development (CHUD) project in Saida, Lebanon*, *Cities*, 27(4), 234-248 (2010)

⁵³ EBLE, WALKER, GOVEN, RAMBAUD, *Reconvertir le patrimoine, Actes des rencontres départementales du patrimoine de Seine-et-Marne : Nouvel usage, nouvelle image, la reconversion du patrimoine bâti* (2010)

⁵⁴ LAZZAROTTI, *Patrimoine et tourisme : Histoires, lieux, acteurs, enjeux* (2011)

1.2 INTRODUCTION INCLUDING STATEMENT OF PROBLEM

1.2.1 About Indo-Saracenic Architecture in Chennai

Indo-saracenic architecture, pioneered in Chennai⁵⁵, was born around the 19th and 20th centuries. A few architects of Great Britain came to Southern India with the objectives of constructing public buildings of all sorts⁵⁶. Indian craftsmen constructed the buildings, with their indian knowledge, and the British architects added byzantine and mughol styles to the constructions. The beautiful results of their common work were a singular mix of cultures, interesting to study.

Then, slowly, the roles of these buildings changed, and some of them became in a bad physical state. To not let die these beautiful and original buildings, some Indian cities decided to launch conservation projects, with the help of various institutions and conservation architects.

1.2.2 The choice of the Case Study

*"Every first-time visitor is amazed at the chaos and the commotion. Disembarking in the dim light of dawn, you are immediately confronted with people, luggage, trolleys, vendors carrying trays of seemingly unappetising food, urchins and black-coated railway officials. While music blares from the television set, there are also the never-ending announcements in different languages. But even in the faint light you are aware there is a method in the madness. This is the Chennai Central Station, and the excitement and the anticipation of what the city holds for you is apparent on the platform."*⁵⁷

Chennai Central Railway Station is the 140-year-old building of the Railway Station, main terminus in the city of Chennai. It was designed by the architect George Harding and is one of the most prominent landmarks of the city.

It was originally built in the Gothic Revival style by Harding in 1873, and later modified by Robert Fellowes Chisholm. The building was then a combination of Gothic and Romanesque styles, finished in 1900.

In 2006, the main building has been declared as a heritage building, to "pay tribute to the historic railway station that is the 'gateway to the south' "⁵⁸. It is said that around 350,000 passengers use the station every day.

⁵⁵ Architecture of Chennai, wikipedia

⁵⁶ MURALI, 2003

⁵⁷ <http://www.hindu.com/yw/2006/08/18/stories/2006081803360100.htm>

⁵⁸ <http://www.hindu.com/yw/2006/08/18/stories/2006081803360100.htm>



Figure 1: Panorama of the Chennai Central Railway Station

Source:

<http://upload.wikimedia.org/>

As "walkability"⁵⁹ is a major concept related to sustainable urban design, which orientations are useful in this project, this concept will be used to determine the perimeter studied around our core point, Chennai Central. As it is a main station, a radius of 500 meters has been chosen. This perimeter includes the main points described above.

The following map allows the localisation of the study area.

⁵⁹ www.walkscore.com/

Figure 3: Localisation of Chennai in India
(Source: kids.britannica.com)



CHENNAI



Figure 2: Localisation of the case study in Chennai
(Source: <http://maps.newkerala.com/Chennai-City-Map.jpg>)

1.2.3 *Problematic*

Using an analysis grid which could be used in a future Conservation Management Plan, how to integrate Chennai Central Station, heritage building, in a rapidly developing zone with various issues? (Chennai, India).

1.2.4 *Research hypothesis*

During a conservation process, there are various themes that need to be managed. They are not independent, but interact with each other: for example, the caring about architecture can have positive effects on tourism, but the neglect of garbage has a bad impact on the Environment.

The quality of the integration of historic buildings depends on the chosen criterias, on what is done for each criteria, and on the link between them.

The integration can not be complete and effective without the interaction of actors working together and without public involvement. The actors should try to understand the past context and the present one, for the monument to stay the most faithful to the ancient one, but with a role that answers to the nowadays needs of the city where it is implanted.

Such imperial buildings may also be integrated when there are plenty of documents about the architecture that must be restored, when the building is destined to be used by the public, when there is communication to make people aware that heritage should be protected.

A well made integration may take care of the past (the historic buildings in themselves), manage the present (the actual environment and context at various scales) and turn to the future (projects and prospective).

2 METHODOLOGICAL APPROACH

2.1 NEED FOR THE STUDY

Heritage buildings are part of any culture. That is why planning for any area should be preceded by an identification and a conservation of heritage elements for the next generation to learn about heritage.

The present study aims at creating an analysis grid in order to make it a part of a Management Plan which is elaborated to integrate Chennai Central Railway Station, an Indo-Saracenic building, in a new development area. This analysis grid

will contain fields of action, objectives and strategies for an integrated approach. An integrated approach, because the fields interact with each other, each field cannot be considered independantly.

The relevant fields of actions will be identified, and for each field, will be defined the issues that need to be dealt with.

This work will be mainly destined to decision-makers. The fields, issues and strategies will give wide orientations that should be followed during the conservation process. The goal is to conserve the heritage buildings without slowing down the development of the area.

This work will be based on previous works (scientific articles and reports on how to make Integrated Management Plans) which have attempted to determine an analysis grid made for particular heritage buildings all over the World (India, Taiwan, Turkey, Europe...), and analysis grids on another topics but that can be useful to this topic.

2.2 AIM AND OBJECTIVES

The aim is to integrate Central Station, imperial building, in the territory where it is located. For this we will describe some of the conditions for this building to be integrated.

The objectives are:

- making a minimum state of the art about heritage in general and heritage in Chennai,
- making the Indo-Saracenic Architecture better known,
- establishing some criterias to make an imperial building integrated,
- imagining what could be the future of imperial heritage in Chennai.

2.3 SCOPE AND LIMITATIONS

The scope of the above work is limited to the Chennai Central Railway Station and its direct environment.

2.4 DATA IDENTIFIED AND COLLECTED

To collect data relevant for this project, various informations have been taken from theory and research projects, and have been crossed with the points of view of heritage conservationists and professionals.

From the review of literature, the basic criteria used to identify and analyse heritage buildings with reference to Indo-Saracenic buildings have been listed.

A conference has been attended in order to meet actors and complete the informations found, because literature on the subject is finally very thin.

Literature review and conference were useful to know more about Indo-Saracenic architecture, its design, its developers, its materials, its relevant examples all around India. Some conservation cases were shown, and some other projects may be attempted (Chepauk Palace in Chennai for example).

Literature has also been used to study analysis that have already been made, with various case studies all over the World, and to study methods for Management Plans and Conservation Strategies for heritage buildings.

Finally, visits on site have been made, to better understand the context of the building, the organisation of the area, the distances between each building, to see how is the construction for Metro Rail going on...

This abled to compare the theoretical practices and speeches to what is actually done in reality.

A proposal on heritage conservation and integration with the local environment for the case study of Chennai Central Railway Station will finally be attempted in this project.

The analysis grid proposed here follows a grid proposed by the Planning Department of Polytech Tours (France) to Master students coming from the Planning Department of SAP, Anna University. This grid was originally elaborated during the process for the research project "*R+0!, Sustainable Development and enhancement of the heritage legacy in the design of public spaces*"⁶⁰.

⁶⁰ Carabelli R., Larribe S. and Bailleul H., Texts from Oueslati I., Ben Hammed S. and Rigoni S., *R+0 ! Développement durable et valorisation de l'héritage patrimonial dans la conception des espaces publics*, Bononia University Press (2011)

PART II

Presentation and context of the case study





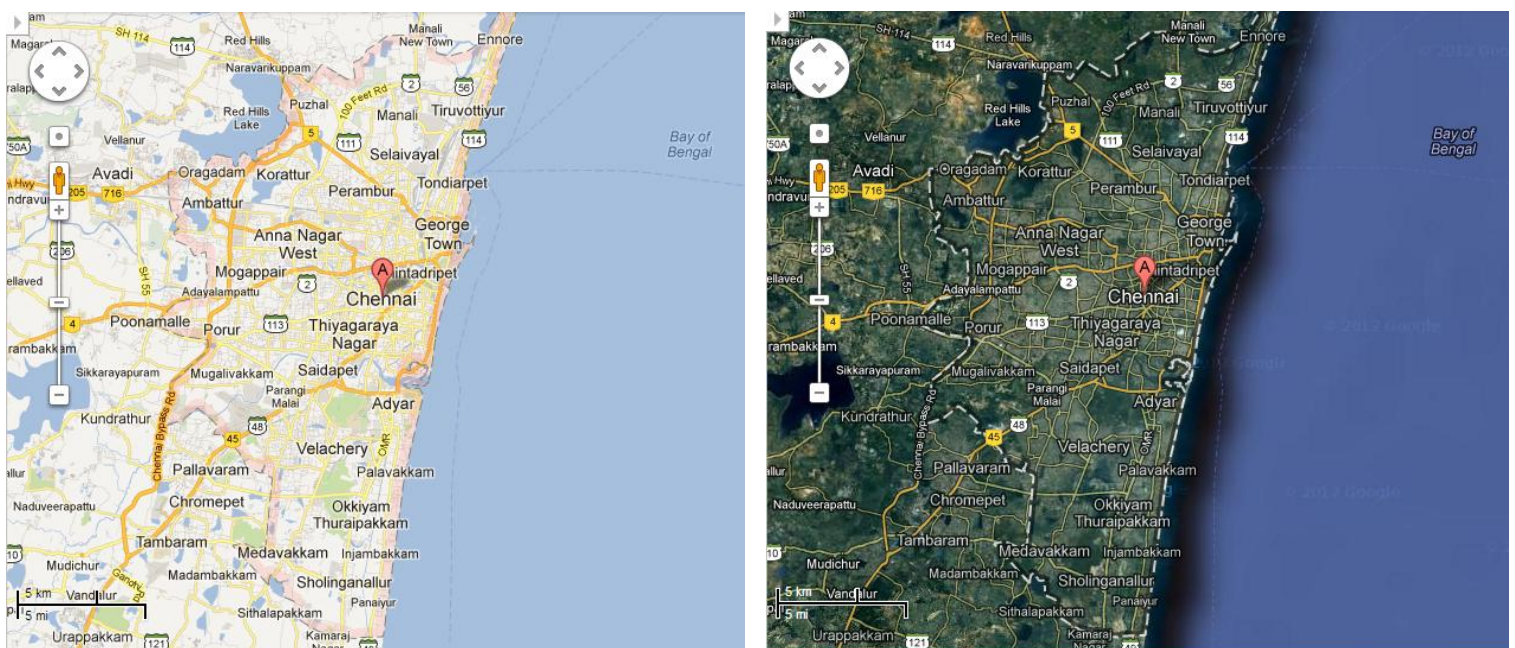
1 GENERAL INFORMATIONS ABOUT THE CONTEXT

1.1 ABOUT CHENNAI CITY

1.1.1 Geographical context

Formerly known as Madras, Chennai (its name changed in 1996), is the fourth largest metropolitan area of India and the capital city of the south Indian State of Tamil Nadu. In the 2001 census, Chennai's population was estimated to be 4.34 million within its municipal corporation. The urban agglomeration of Chennai has an estimated population over 8 million, making it one of the largest urban agglomerations in India.⁶¹

Chennai is situated on the coast of the Bay of Bengal. Spread on a surface of more than 200 sq. km, and still growing, it is located at an altitude of 8 meters approximately from the sea level, with a highest point of 60 meters. Marina Beach, the second longest beach in the World (13 km), is situated along the city's shoreline.⁶²



Figures 4: Map view and aerial view of Chennai, Tamil Nadu, India
(Source: Google Earth)

⁶¹ <http://chennairealties.com/about-chennai/chennai-history.php>

⁶² <http://www.mapsofindia.com/chennai/chennai.html>

1.1.2 History in a wink^{63,64,65,66,67,68}

Here are presented the major historical facts concerning the city of Chennai.

52-70:	Christian apostle St. Thomas preaches in the region of Mylapore.
Before 16th century:	Ruled by various South Indian dynasties, notably the Pallava, the Chera Dynasty, the Chola, the Pandya, and Vijaynagar.
1522:	Portuguese arrive and build a port named São Tomé, near Mylapore.
1523:	Portuguese establish Santhome Church in honour of St. Thomas.
1612:	Dutch arrive and capture the region and establish near Pulicat, just north of the city.
1626:	The British East India Company decide to build a factory on the east coast
1637:	Francis Day, one of the officers of the East India Company, makes a voyage of exploration in 1637 down the coast as far as Pondicherry in order to choose a site for a new settlement.
1639-40:	The city of Madras is founded (22 August). This name is said to be derived from Madraspatnam, a village that existed here prior to the settlement of the English. Fort St. George is built by the British, which became the nucleus of the growing colonial city. The population of the Portuguese and Dutch settlers in the region reaches 10,000, although substantially outnumbered by the local population. Francis Day granted the British permission to build a factory and warehouse for trading enterprises.
1646:	Population of the city recorded as 19,000.
1652:	The factory of Fort St. George is recognized as a presidency (an administrative unit governed by a president).
1664:	First British hospital in the country is started in Fort St. George; later becomes the Government General Hospital.
1669:	Population of the city increased to 40,000.
1688:	Madras City Municipal Corporation is inaugurated.
1746:	The French Admiral La Bourdonnais, the Governor of Mauritius, plunders the town and its outlying villages and captures Fort St George.
1749:	The French return Madras to the English through the Treaty of Aix-la-Chapelle (1748).

⁶³ <http://www.mapsofindia.com/chennai/chennai.html>

⁶⁴ <http://chennairealties.com/about-chennai/chennai-history.php>

⁶⁵ http://en.wikipedia.org/wiki/Timeline_of_Chennai_history

⁶⁶ <http://www.madras.com/v/history/>

⁶⁷ <http://www.cmdachennai.gov.in/>

⁶⁸ <http://www.britannica.com/EBchecked/topic/356057/Chennai>

1758:	French Commander Lawly sieges Madras.
1759:	French siege ends.
1767:	Hyder Ali, the Sultan of Mysore, invades the city for the first time.
1768:	Chepauk Palace is built by Nawab of Arcot.
1769:	Hyder Ali, the Sultan of Mysore, invades the city for the second time.
1772:	General Hospital at Fort St. George moves to its present location. Seven Wells Scheme, the city's first organised water supply, is started.
1784:	The first newspaper, Madras Courier, is founded.
1785:	First post office starts functioning.
1794:	The Government Survey School, the oldest engineering school outside Europe and now part of the Anna University, commences at Fort St. George.
1798:	The area of the city was demarcated as the 69 sq km area surrounding the Fort and contained 16 hamlets within it.
1817:	Madras Literary Society is founded.
1826:	Board of Public Instructions is founded.
1831:	First Commercial Bank, Madras Bank, is founded. First census in the city is taken (population: 39,785).
1832:	Madras Club is founded.
1834:	First survey school is inaugurated; later develops as an engineering college.
1835:	First medical college is founded; later becomes Madras Christian College.
1842:	General Hospital, originally meant only for the English, opens its doors to Indians.
1851:	Museum is formed.
1853:	Zoo is formed.
1855:	University Board is formed.
1856:	First Railway line from Royapuram to Arcot is built.
1857:	University of Madras is founded.
1868:	Attempt begins to protected water supply. Further developments at the harbour begin.
1873:	Birth registration begins.

1874:	University Senate House is built.
1876–78:	Great Famine wipes the city. Buckingham Canal is dug.
1878:	The Hindu newspaper is founded.
1882:	First telephone is installed.
1885:	Marina Beach road is formed.
1894:	First car is sold.
1895:	First tram car service is inaugurated.
1901:	The city, covering an area of about 70 sq km, has a population of 540,000.
1914:	Water mains and drainage are formed. Street lights are introduced. Kilpauk water works is inaugurated. German Emden bombardment to the sea shore during the First World War.
1917:	First aeroplane flies
1923:	The city is expanded to occupy an area of about 80 sq km.
1925:	First bus transport begins.
1931:	Suburban electric train services start (from Chennai Beach to Tambaram).
1934:	Raja Sir Muthiah Chettiyar is appointed first mayor of the city.
1942:	Second World War results in evacuation of Madras.
1943:	Japanese fighter plane drops bombs on city. Population of the city crosses the million mark.
1947:	Indian Independence: the national flag is hoisted over Fort. St. George. Madras city becomes the Capital of Madras state.
1950:	Boundary of the city covers 129 sq km.
1952:	Nehru Stadium is built.
1965:	Violent agitations of 1965 against the imposition of Hindi as the national language. The political dynamics of the city and the whole state are marked by a major shift.
1969:	First World Tamil Congress is held.
1969:	Madras State was renamed Tamil Nadu, meaning Tamil country.
1972:	Madras Metropolitan Development Authority is formed.

1977:	Madras Metropolitan Water Supply and Sewage Board is formed.
1988:	Decentralisation of administration occurs.
Late 1990s:	Software development and electronics manufacturing make up the bulk of Chennai's economy.
1996:	City of Madras is renamed as Chennai.
1998:	Maximum permissible height of tall buildings is raised from 40 m to 60 m.
2004:	Indian Ocean tsunami lashes the shores of Chennai, killing many and permanently alters the coastline.
2010:	First seawater desalination plant starts functioning at Minjur.
2011:	9 municipalities, 8 town panchayats, and 25 village panchayats are annexed to the city. The city reaches the present stage of 426 km ² from 174 km ² .
2013:	Second seawater desalination plant starts functioning at Nemmeli (February).

All along the development of the city, neighbouring villages were annexed, contributing to Chennai's expansion.

1.1.3 Demographics⁶⁹

Chennai's inhabitants are called Chennaiite or Chennaivai. In 2001, its population was estimated to 4.34 million, the total metropolitan population to 6.4 million. In 2006 the population was estimated to 4.5 million, the total metropolitan population to 6.96 million. In 2001 the population density was 24,682 per sq. km for a metropolitan density of 5,922 per km². This makes Chennai one of the most densely populated cities in the World. The increasing of the population remains a big problem in Chennai and has generated many other problems like water scarcity and traffic congestion.

The average literacy rate is 80.14%, much higher than the national average of 64.5%. Schools in Chennai are either run publicly by the Tamil Nadu government or privately, some with financial aid from the government. The medium of education is either English or Tamil.

The city has the fourth highest population of slum dwellers among major Indian cities, with about 8,20,000 people (18.6% of its population) living in slum conditions. This number represents about 5% of the total slum population of India.

⁶⁹ <http://chennairealties.com/about-chennai/chennai-demographics.php>

In 2005, the crime rate in the city was 313.3 per 1,00,000 people, accounting for 6.2% of all crimes reported in major cities in India. The number of crimes in the city showed a significant increase of 61.8% from 2004.

The majority of the Chennaiite population is Tamilian. Tamil is the primary language spoken in Chennai, but English is widely spoken especially in business and education. Chennai also counts a large migrant population, coming from other parts of Tamil Nadu and the rest of the country. As of 2001, out of the 937,000 migrants (21.57% of its population) in the city, 74.5% were from other parts of the state, 23.8% were from rest of India and 1.7% were from outside the country.

The variety of religions is also rich: according to the 2001 census, Hindus constitute about 82.27% of the city's population, and Muslims (8.37%), Christians (7.63%) and Jains (1.05%) are other major religious groups.

1.1.4 *Economy*

The economy is mostly based on industry, with a broad industrial base in the automobile, technology, software services, hardware manufacturing, healthcare and financial services industries. Chennai contributes for 39% of the Tamil Nadu State GDP. Accounting for 60% in the automotive exports, it is sometimes referred as "the Detroit of India".

In 2001, the total workforce in Chennai was about 1.5 million, which was 31.79% of its population. According to the 1991 census (which is quite old and may have significantly changed according to the rapidly growing city and globalization), most of the city's workforce was involved in trade (25.65%), manufacturing (23.52%), transportation (10.72%), construction (6.3%) and other services (31.8%). Chennai metropolitan area accounts for over 75% of the sales tax revenue in the state.⁷⁰

Chennai houses the Apollo Hospitals Group, the largest private healthcare provider in Asia and one of the largest in the World. Because of this, the city is developing healthcare tourism and so its status of India's Health Capital as it nets in 45% of health tourists from abroad and 30-40% of domestic health tourists.

1.1.5 *Environment*

Two rivers are crossing the city, Cooum River and Adyar River, which is protected because several animal species are living there.⁷¹ The Buckingham Canal, which is 4 km long, runs parallel to the coast, and links the two rivers. Lakes of

⁷⁰ <http://chennairealties.com/>

⁷¹ <http://www.mapsofworld.com/cities/india/chennai/geography.html>

diverse sizes are located on the western borders of the city and some of them supply Chennai with potable water.⁷² The city includes in its border the Guindy National Park.

As it is situated on the coast, the temperatures have variations depending on the season: during summer (May to June) the temperatures can be extremely hot and can go up to 42°C in day time. In winter (December to January), the average temperature is around 24°C. Most of the year the climate is hot and very humid. The monsoon is from mid-September to mid-December. The city can also face cyclones in the Bay of Bengal.⁷³

1.1.6 Administration⁷⁴

Chennai is governed by the Corporation of Chennai, established in 1688. This Corporation, the oldest of India, is composed of 155 councillors directly elected by the residents. The councillors then elect a mayor and a deputy mayor who will preside more than six standing committees. As the capital of the Tamil Nadu State, Chennai houses the state executive and legislative headquarters in many buildings spread around the city. The highest judicial authority in the state and also in the city is the Madras High Court, whose jurisdiction extends across Tamil Nadu and Puducherry.

The Corporation of Chennai and municipalities of the suburbs have to provide civic services to the population. Garbage in most of the city is handled by a private company, and by the Chennai Corporation in the other zones. Water supply and sewage treatment are handled by the Chennai Metropolitan Water Supply and Sewage Board. Electricity is supplied by the Tamil Nadu Electricity Board.

1.1.7 Structure of the city and Planning⁷³

Chennai is sub-divided into 4 parts, which globally have different functions:

- the **North** is an industrial area,
- the **Centre** is the commercial heart of the city, with a business district,
- the **South** and the **West** were previously mostly residential, but this is changing quickly with the addition of malls, which gives a commercial use to these areas, and the increasing number of Information Technology firms (Chennai is India's second largest exporter of software), financial companies and call centres.

The city is expanding quickly, because of the growing population, to the South-West, reaching the heritage town Mahaballipuram.

⁷² <http://chennairealties.com/about-chennai/chennai-geography.php>

⁷³ <http://www.madras.com/v/geography/>

⁷⁴ <http://chennairealties.com/>

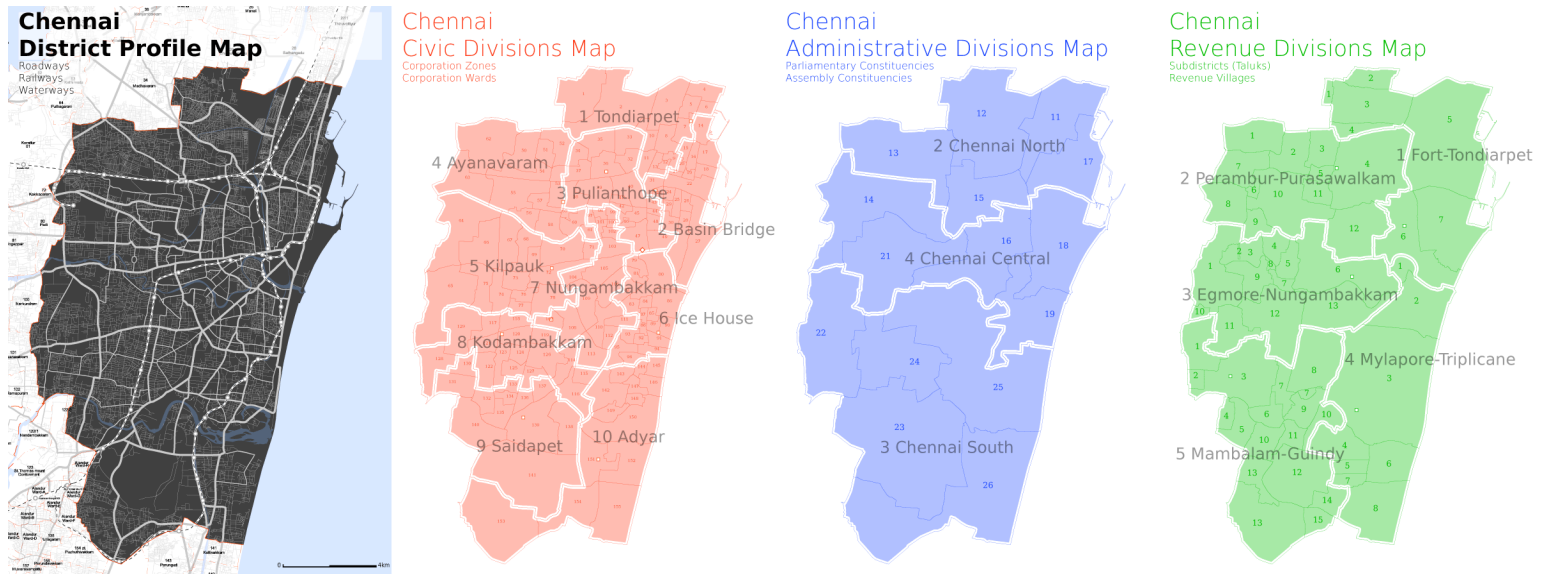


Figure 5: Division Maps of Chennai

Source: <http://bitterscotch.wordpress.com/>

The metropolitan region of Chennai, of 1,189 sq. km out of the 174 sq. km of the city, covers many suburbs. The larger suburbs are governed by town municipalities, and the smaller ones are governed by town councils called panchayats. The Chennai Metropolitan Development Authority (CMDA), organizing authority for town and country planning in Chennai, has drafted a Second Master Plan that aims to develop satellite townships around the city, with a proposed land use for 2026.

1.1.8 Transport⁷³

By air, Chennai is well connected to all major cities in India and major international destinations, also domestic carriers connect Chennai with major Indian cities. The city is connected to major hubs in South Asia, South East Asia, East Asia, the Middle East, Europe and North America through more than 30 national and international carriers. The existing airport is undergoing further modernisation and expansion, and a new greenfield airport is to be constructed.

The Chennai suburban railway network is one of the oldest in the country and consists of four broad gauge rail sectors terminating at two locations in the city, namely Chennai Central and Chennai Beach. The two major railway stations are Chennai Central, the city's largest, and Egmore. It is well connected by rail with all the major cities in India. The fourth sector is an elevated north-south Mass Rapid Transit System (MRTS) which provides quick connectivity within the city and is interlinked with the remaining rail network.

An extensive network of roads connects Chennai with major cities and towns in Tamil Nadu and other parts of the country. Buses are available for travel within the city. The Chennai Mofussil Bus Terminus (CMBT), the terminus for all intercity buses from Chennai, is the largest bus station in Asia. Seven government-owned transport corporations operate inter-city and inter-state bus services. The other most common form of public transport within the city are vehicles like shared-autos and auto rickshaws, also available for hire from private tour and cab operators. Pre-paid taxis and airport coaches are available for hire at the airports and railway stations.

The Chennai port is the largest in Bay of Bengal and India's second busiest container hub, handling automobiles, motorcycles and general industrial cargo. Ships from there ply regularly between Chennai and Port Blair in the Andaman and Nicobar Islands.

The underground Metro Rail is actually under construction and may be finished by the end of 2013 or in 2014. It aims at *"providing the people of Chennai with a fast, reliable, convenient, efficient, modern and economical mode of public transport, which is properly integrated with other forms of public and private transport including buses, sub-urban trains and MRTS"*.⁷⁵

Chennai's transportation infrastructure provides coverage and connectivity, but growing use has caused traffic congestion and pollution. The government has tried to address these problems by constructing grade separators and flyovers at major intersections, but still they seem not sufficient.

1.1.9 Culture⁷³

Chennai is famous for its sandy beaches, parks and historic landmarks. Nevertheless the city has retained its traditional Tamil roots while acquiring a modern and cosmopolitan character. It is a city which has embraced both the new and the old with ease, and it is considered as the Musical and Cultural Capital of India, as it presents lots of different kinds of Art: Bharatanatyam (a classical dance form), classical music, Kollywood based in Chennai (the Tamil film industry, second largest film industry in India), beautiful Hindu temples, etc.

⁷⁵ <http://chennaiemtrorail.gov.in/>

1.1.10 *The Indo-Saracenic architecture in Chennai*

Originally, and like many other Indian cities, Chennai was a British creation.⁷⁶ The victory of the British in the last Carnatic war in 1751 AD paved the foundation for the empire in 1858. The centuries they reigned over India, produced a range of colonial architecture.⁷⁷ But if the British imposed their identity on the city, traditional structures could coexist with colonial creations.

Thus many architectural styles can be seen in Chennai city, like Colonial, Classical, Gothic, Romanesque and others, but the Indo-Saracenic one was born in Chennai itself.⁷⁸

Indo-Saracenic architecture represents a synthesis of Islamic designs and Indian materials developed by British architects in India during the late nineteenth and early twentieth centuries.⁷⁹ If it is a hybrid architecture which mixes elements of various other architectures like Hindu and Mughol, the sitting, spatial organization and composition follow the traditional British architecture. British builders made no attempt to be faithful to the style of any particular period of India's past. One of the greatest attractions of the Indo-Saracenic style for the British was the freedom it offered to "mix and match" elements of design.⁸⁰

It evolved with time and the complexity in the homogeneity of the design increased as they were more and more borrowed from the Indian prototypes. The architectural expression of the Indo-Saracenic style remains different from other hybrid styles, as it was a conscious attempt by the British to show a sense of belonging to the country.⁸¹ This style of architecture was so unique that the British were successful in exporting it to their other colonised nations.⁸²

The principal characteristics of Indo-Saracenic architecture are:

- *"Onion (Bulbous) Domes*
- *Overhanging Eaves*
- *Pointed Arches, Cusped Arches, or Scalloped Arches*
- *Vaulted Roofs*
- *Domed Kiosks*
- *Many Miniature Domes, or Domed Chatris*

⁷⁶ MURALI Kanta, *Chennai's architectural heritage*, Frontline Review Article, vol 20 - Issue 10, May 10-23 (2003)

⁷⁷ National Conference on Indo-Saracenic Heritage of Chennai, MARG, MIDAS, Chennai, India (16.02.13)

⁷⁸ MURALI Kanta, *Chennai's architectural heritage*, Frontline Review Article, vol 20 - Issue 10, May 10-23 (2003)

⁷⁹ J.JEYARAJ George, *Indo-Saracenic Architecture in Chennai*, Hindustan University, Chennai, Chennai Metropolitan Development Authority (CMDA) Report (-)

⁸⁰ R. METCALF Thomas, *An Imperial Vision - Indian Architecture and Britain's Raj*, University of California Press, Berkeley-Los Angeles (1989)

⁸¹ <http://www.archinomy.com/case-studies/2019/indo-sarsinic-architecture-in-madras>

⁸² National Conference on Indo-Saracenic Heritage of Chennai, MARG, MIDAS, Chennai, India (16.02.13)

- Towers or Minarets
- Harem Windows
- Open Pavillions
- Pierced Open Arcading"⁸³

The leading architects of this style were Robert Fellowes Chisholm (1840-1915), Henry Irwin (1841-1922), Gilbert Scott (1811-1878), Charles Mant (?), William Emerson (1843-1924), George Wittet (1878-1926) and Frederick W. Stevens (1847-1900).

Chisholm in particular was one of the most gifted and supported actively and with strength the Indian craftsmen, "*the men who will actually leave the impress of their hands on the material*".⁸⁴

Also, according to R.METCALF, the merit of Major Mant's (first British architect to build Indo-Saracenic architecture) architectural design needs to be distinguished, because whereas "*some of his architectural and artistic predecessors transplanted European styles bodily into India... he tried instead to hit on some style which would unite the usefulness of the scientific European designs together with the beauty, taste, grandeur and sublimity of the native style; and this style he called the Hindu-Saracenic*". Central to its conception was always a combination of "*European science*" and "*native art*", of "*traditional*" forms and "*modern*" functions.⁸⁵

This particular style was used for public buildings of different kinds, like railway stations, banks and insurance buildings, educational institutions, clubs, museums, art galleries, clock towers, government colleges and high school buildings, palaces, courts and other civic buildings. Chepauk Palace in Chennai, constructed in 1768 and designed by Paul Benfield, is said to be the first Indo-Saracenic building in India. Other outstanding examples are spread across the country: Allahabad, Mumbai, Baroda, Mysore, Bangalore, and Chennai mostly.⁸⁶

Even today, the historical and architectural importance of Chennai is not known clearly and recognized. The fascinating past of the city lies everywhere, in its many buildings, public, institutional and private but it is often hidden by the lively activities, the giant advertisements and the overflowing streets.

To try to remedy to it, the book *Madras - The Architectural Heritage* written by the architects K. Kalpana and Frank Schiffer and published by the Indian National Trust for Art and Cultural Heritage (INTACH), presents 254 structures, well

⁸³ J.JEYARAJ George, Indo-Saracenic Architecture in Chennai, Hindustan University, Chennai, Chennai Metropolitan Development Authority (CMDA) Report (-)

⁸⁴ J.JEYARAJ George, Indo-Saracenic Architecture in Chennai, Hindustan University, Chennai, Chennai Metropolitan Development Authority (CMDA) Report (-)

⁸⁵ R. METCALF Thomas, An Imperial Vision - Indian Architecture and Britain's Raj, University of California Press, Berkeley-Los Angeles (1989)

⁸⁶ J.JEYARAJ George, Indo-Saracenic Architecture in Chennai, Hindustan University, Chennai, Chennai Metropolitan Development Authority (CMDA) Report (-)

documented and aiming to bring to the forefront this living heritage of structures still in use.⁸⁷

However, some beautiful buildings like the demolished Moore Market, cannot be rebuilt. To not continue losing the rich heritage of the city, the INTACH, governmental and other non-governmental bodies have acted to renovate the Senate House for example, and the renovation for Ripon Building is in progress. Still there are many other buildings like the Royapuram Railway Station, National Art Gallery, Bharat Insurance building, Chepauk Palace Presidency College, Government Fine Arts College etc, that should be treated the same way. *"It is up to the Government to restore these buildings to its former glory and it is the duty of the Citizen to see that no damage is done to these buildings."*⁸⁸

1.2 CHENNAI CENTRAL STATION AND ITS SURROUNDINGS

1.2.1 Geographical context

The study area is situated in the central part of Chennai, next to the old part of the city (George Town) at its North-East. The Fort St George is at its East, the Cooum River at its South, the Buckingham Canal crosses the area and at the North are Lily Pond, My Lady Garden and the Nehru Stadium. All around are mostly residential and mixed (residential/commercial) land uses. The highest buildings on the area might be less than 50 meters (12 to 13 floors for Moore Market for example, with a height of 3.7m per floor)⁸⁹.

Five heritage buildings presenting Indo-Saracenic architecture are situated on the area: Ripon Building, Victoria Public Hall, Central Station, Southern Railway and Memorial Hall. The General Hospital and the new Madras Medical College can be seen in the South of the study area, separated by a highway.

At the South, along the Buckingham Canal can be seen slums, next to buildings.

The area is on the way of various buses lines; the MRTS and Park Station are situated less than 500 meters to Central Station; and one of the future Metro Rail stations will serve the area, less than 100 meters from Central. Central is about 2 km from Chennai Port Trust.

The following photos and map present the area.

⁸⁷ MURALI Kanta, *Chennai's architectural heritage*, Frontline Review Article, vol 20 - Issue 10, May 10-23 (2003)

⁸⁸ VENKATARAMAN G., SHANTHI A. Anne, *History of Historical Building and Monuments in and around Chennai*, Dept. of Indian History, School of Historical Studies, University of Madras (-)

⁸⁹ <http://www.spiritofchennai.com/cre/breg.htm>



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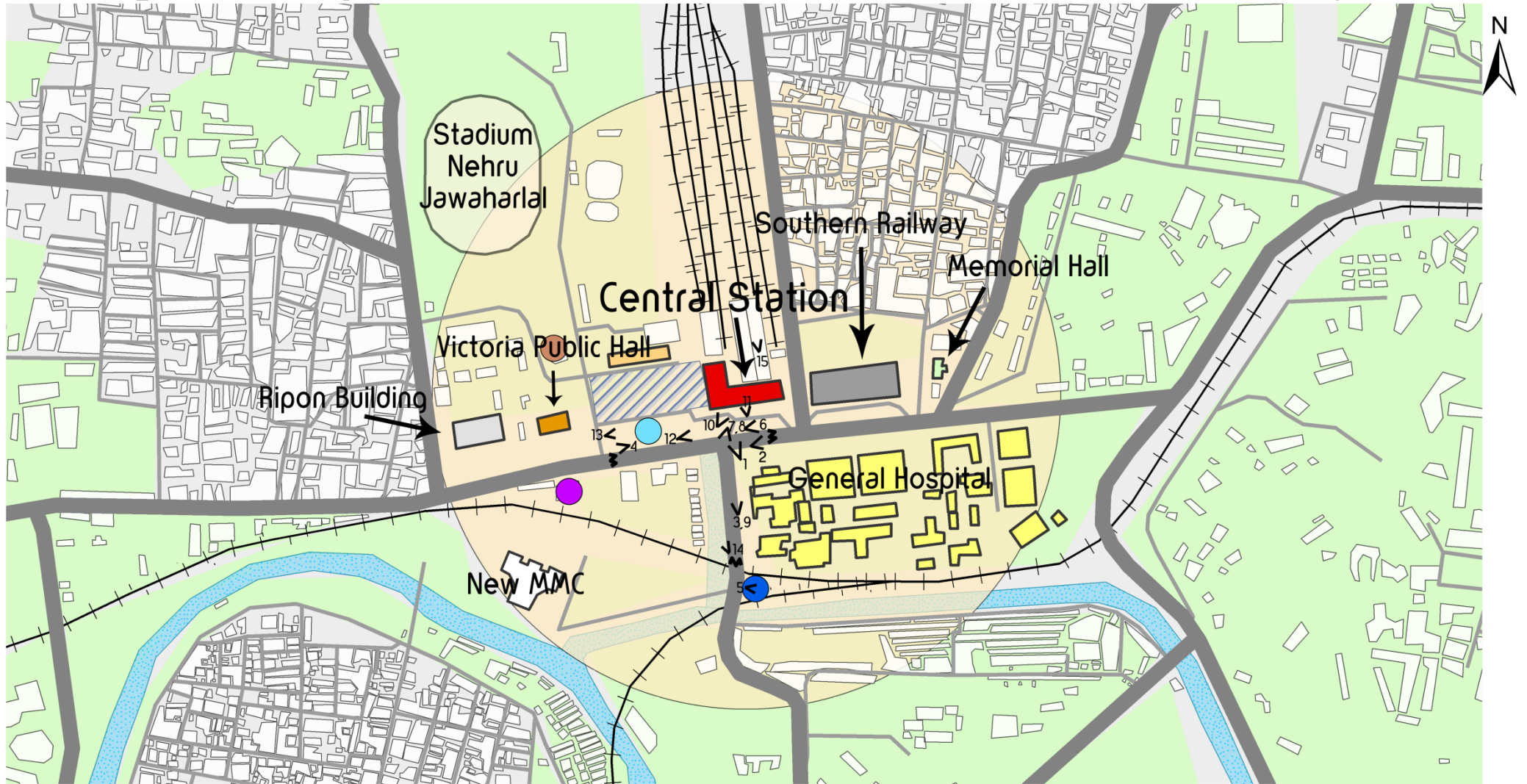
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

















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Figures 6: Some pictures of the area
(Source: personal)

Base map localising the area studied around Chennai Central Railway Station



- | | | |
|--|--|--|
|  Central Station |  New Madras Medical College |  Major Roads |
|  Victoria Public Hall |  Stadium |  Streets |
|  Ripon Building |  Moore Market |  Rail |
|  Southern Booking Station |  Future Metro Rail Station |  Central parking |
|  Southern Railway |  Chennai Park Station |  Built Areas |
|  Memorial Hall |  Park Town Station |  Impact of Central Station (buffer 500m) |
|  General Hospital |  Underpass |  Water Body |
| | |  Green Areas |

0 200 m

1.2.2 Historical context^{90,91,92,93}

Here are presented the major historical facts concerning the Railways and Central Station.

1845:	The Madras Railway Company is formed, four years before the Great India Peninsula Company which built the Bombay line.
1853:	Foundation of the Great Southern Indian Railway Co., to run railway lines in the southern parts of the Madras Presidency.
1856:	Madras Railway Company begins to network South India by railway. At that time the first and main station of the city is inaugurated in Royapuram.
1861:	Opening of the first Great Southern Indian Railway Co.'s lines.
1873:	Central Station, with just four platforms, is opened. The building has been designed by George Harding.
1874:	The Great Southern Indian Railway Co. and the Carnatic Railway Company merge.
1878:	End of the work on Central Station.
1890:	The merge becomes the London-registered South Indian Railway Company.
1900:	Completion of improvements and embellishments by Robert Chisholm on Central Station: the Travancore `caps' on the towers. Completion of the Moore Market building.
1905:	Beginning of the work for Madras' third major station of this period, Egmore. The architect is Henry Irwin.
1907:	Central becomes Madras's main station, Royapuram being made subsidiary to it.
1908:	The Madras Railway Company and the Southern Mahratta Railway Company merge as the Madras and South Mahratta Company (M & SM) to operate services from Madras into the Deccan and up to Bombay. The M & SM takes over occupancy of the Madras Railways headquarters in Royapuram and remains there until it a new building was built next to Central Station. Egmore Station, the new company's northern terminus, is inaugurated.
1912:	The granite-look building is inaugurated, housing M & SM, located on Poonamallee Road. Today, it is the focal point of many of the city's major public amenities.
1931:	Inauguration of a suburban electric train service linking Tambaram and Madras Beach.

⁹⁰ <http://www.hindu.com/thehindu/mp/2003/03/05/stories/2003030500200300.htm>

⁹¹ <http://www.thehindu.com/arts/history-and-culture/article3390781.ece>

⁹² <http://www.hindu.com/thehindu/mp/2003/02/26/stories/2003022600240300.htm>

⁹³ <http://indiatoday.intoday.in/story/In+the+city/1/17270.html>

1951:	The South Indian Railway, the Madras & South Mahratta Railway and the Mysore State Railway are merged as the Southern Railway, the first nationalised unit of the Indian Railways. Its headquarters are that landmark starting off the road to Poonamallee, the M&SM headquarters building.
1959:	Further work on Central Station.
1980:	Southern Railways needs land for extension.
1985:	Moore Market mysteriously caughts fire. The Government hands over the stucture to the Railways, who demolished it to built their reservation office. The area in front becomes a car park and in the middle stands the scaled down Moore Market.
1998:	A duplication of the main building is added. The station has now 12 platforms.

1.2.3 Structure of the study area

Presentation of the heritage buildings

The following informations on the buildings situated on the case study area (in the 500 meters perimeter) were mostly found in *Madras: the Architectural Heritage* (K. Kalpana, F. Schiffer, a Indian National Trust for Art and Cultural Heritage (INTACH) Publication (2003)).

Madras Central Railway Station, Poonamallee High Road, G. Harding and R.F. Chisholm, 1873.

Made of a Gothic Revival style, the Station connects the metropolis by train to all parts of the country. The original terminal which was designed by Harding, was opened to the public in 1873. Some modifications and additions, like the clock tower which is one of the oldest of the city, have then been done by Chisholm in Indo-Saracenic style, until 1893. Again the Station has been remodelled in 1959: an exact copy of the building was added to the west. The Madras Mail wrote in 1891: *"Fresh coats of paint at regular intervals, casual maintenance and full occupancy have fortunately served to prolong the life of the building"*. Already at this time, the importance of maintenance, caring, and use of the building to make it alive and conserved was raised.



Figures 7: Chennai Central Railway Station
(Source: personal)



Victoria Public Hall, Poonamallee High Road, R.F. Chisholm, 1887.

Also called Town Hall, it was one of the two buildings built to honour Queen Victoria on her Golden Jubilee. Built for public use, it was used for stage performances, lectures and as a ballroom. The South Indian Athletic Association currently uses a part of the ground floor, while the first floor has been completely abandoned. *"It is however unfortunate, that a building of such nature is completely lost behind a hideous row of shops all along its periphery".*

Most of the building is not used nowadays.



Figures 8: The Victoria's Public Hall
Sources: <http://upload.wikimedia.org/> and personal



Rippon Building, Poonamallee High Road, G.S.T. Harris, 1913.

Named after Lord Ripon, the Viceroy of India from 1880-1884, who was instrumental in constituting local government reforms and said to have taken more than four years to complete, this building houses now the Corporation of Madras. The first of its kind outside Europe, the Madras Corporation is now headed by the Mayor with a group of elected Councillors. It is one of the most interesting Indo-Saracenic style of architecture, with a combination of neo-Gothic, neo-Ionic and neo-Corinthian styles. It is the oldest municipal body of the Commonwealth of Nations in India^{94,95}, so it has great heritage value, but answer also to a nowadays need and it is widely used.



Figure 9: The Rippon Building, seat of Chennai Corporation
Sources: <http://upload.wikimedia.org/> and personal



⁹⁴ <http://www.hindu.com/2008/09/23/stories/2008092357680100.htm>

⁹⁵ http://en.wikipedia.org/wiki/Chennai_Corporation#cite_note-320yrs-1

Southern Railway Headquarters, Poonamalle High Road, N. Grayson, 1922.

One of the first modern office buildings, and one of the only of its kind, it is a mix between Classical and Dravidian styles. The building was victim of mindless additions for the need of expansion. *"A new temporary floor with an asbestos roof was erected on the western wing terrace in the late 1970s [...] while toilet blocks have rendered the courtyards useless. A further addition on the eastern side is the new auditorium block, which when completed will effectively ruin the character of the building. The stone cladding too, is withering under the constant onslaught of the salty sea breeze and atmospheric pollution."*



Figures 10: The Southern Railway Headquarters
Source: personal

Memorial Hall, Evening Bazaar Road, G. Winscom, 1860.

Designed by Winscom and modified by Col. Horsley, it was built by the British to celebrate the escape of South India from the horrors of the great Sepoy Rebellion of 1857. It is currently used as a market hall for bargain sales, and *"the upkeep of the building is at its barest minimum with signs of deterioration visible at the rear."*

Madras Medical College, General Hospital Road, 1835.

The College was founded in 1835 as the Madras Medical School. It is still a part of the General Hospital campus, (but a new MMC was built next to the Kuvam River, on the left side of Pallavan Salai). *"The elevation is typically Indo-Saracenic, with a red brick exterior filled with arcaded verandahs and segmental arches [...]".* The building has been mostly unaltered and conserves its original form. *"As it is in constant use, it is generally well maintained and suffers only from a few leaks in the roof."*

2 STATE OF THE ART OF THE HERITAGE POLICIES IN CHENNAI

2.1 A GLOBAL VIEW OF HERITAGE CONSIDERATION IN THE CITY

A beginning of heritage activism has been seen in the city after the burning of Moore Market in 1985, a landmark of Chennai city.⁹⁶ In 1997 the Tamil Nadu Government launched some actions to conserve heritage buildings, supported by special rules for conservation given in the second Master Plan of the City, approved by the government in 2008.⁹⁷

In 2010, with the recommendations of the CMDA, the government constituted the Heritage Conservation Committee (HCC), composed of 16 members. In the same year, the CMDA presented an assessment of heritage buildings, which identified 467 heritage buildings in the Chennai Metropolitan Area (CMA) in need of protection. In spite of this fact, no government action has been taken to create a legal framework that would safeguard the Indo-Saracenic architecture of the city. Even some of the listed buildings have been demolished by their owners after that. Others were threatened by a same ending, but heritage activists intervened and went to Courts to prevent it. Anyway, their owners have acted against the lower court's order stopping demolition.⁹⁸

In May 2012 a law was enacted to protect this heritage and to maintain the buildings.⁹⁹ A comprehensive listing of buildings with cultural and heritage values has then been launched by HCC, with the help of students from architecture and history departments who surveyed the heritage buildings and precincts in the city. The criteria considered were: period of construction, exhibited trend, events or persons associated with the structure, design, style, designer, physical condition, and design integrity for architecturally significant buildings.

⁹⁶ <http://indiatoday.intoday.in/story/In+the+city/1/17270.html>

⁹⁷ <http://www.thehindu.com/news/cities/chennai/42-government-buildings-among-70-vying-for-heritage-status/article4383165.ece?ref=sliderNews>

⁹⁸ http://articles.timesofindia.indiatimes.com/2012-07-10/chennai/32617423_1_heritage-buildings-building-plans-cmda

⁹⁹ http://articles.timesofindia.indiatimes.com/2012-07-10/chennai/32617423_1_heritage-buildings-building-plans-cmda

The only eventual tool for protection, which is not clearly followed, is written in the *Tamil Nadu Town and Country Planning Act 1971 and Rules*¹⁰⁰, which describes gradings for heritage buildings. All the buildings listed by the HCC will be given 3 gradings, "Grade I structures will be prime landmarks upon which no alterations will be permitted. Under Grade II, external changes on structures will be subject to scrutiny. Buildings under Grade III may be changed for 'adaptive reuse' with suitable internal and external changes. The list of heritage buildings has been readied by a team of architecture students engaged by the CMDA under the HCC's supervision."¹⁰¹

These gradings, as the Commission mandated it, will give incentives such as exemption from payment of taxes and offenders who deface or destroy them will face penal action. The HCC has also as a role the involvement of public in preserving and maintaining heritage.

In February 2013, CMDA has cleared the first list of 70 heritage buildings compiled by the HCC. 42 are government owned, and the rest belongs to private people. Property owners will then be invited to go to CMDA, where the significance of the buildings and their heritage values will be presented to them and in order to make them aware they should not destroy it, but protect it instead. Recommendations and objections will be added to the list, but the repair and maintenance will be the duty of the owners. A repair fund will be created and kept at the disposal of the member secretary of CMDA for partial funding of such repairs if the owner is unable to carry them out.¹⁰²

However, during the National Conference on Indo-Saracenic Heritage of Chennai in February 2013, S. Muthiah said that "*unless there is an Act and some kind of support many of these buildings will not survive. There are instances of governments providing support to conservation efforts of even private buildings*".

Deborah Thiagarajan, the founder of Dakshinchitra (Cross cultural living museum of art, architecture, lifestyles, crafts and performing arts of South India¹⁰³) has asked the State government to establish a separate conservation wing in the Public Works Department (PWD) under whose control most heritage and government buildings are. "*Apart from training, funds must also be provided,*" she said.¹⁰⁴

¹⁰⁰ S. Sambandhan, V.S. Rajaram, *Tamil Nadu Town and Country Planning Act 1971 and Rules (with 2nd Master Plan)*, 2nd edition, Deccan Publication, Chennai (2009)

¹⁰¹<http://www.thehindu.com/news/cities/chennai/42-government-buildings-among-70-vying-for-heritage-status/article4383165.ece?ref=sliderNews>

¹⁰²<http://www.thehindu.com/news/cities/chennai/42-government-buildings-among-70-vying-for-heritage-status/article4383165.ece?ref=sliderNews>

¹⁰³ dakshinchitra.net/

¹⁰⁴<http://www.thehindu.com/news/cities/chennai/activists-press-for-nod-on-heritage-act/article4422837.ece>

2.2 CONCERNING THE STUDY AREA

Currently, the heritage buildings of the study area (Rippon Building, Victoria Public Hall, Central Station, Southern Railway Headquarters and Memorial Hall) are not protected by any State Government Law, because there are not protection Laws at the National Level. However, they have a Grade-I (out of 3 grades), the most important, which implies:

- *Definition*

Heritage Grade-I comprise of buildings, and precincts of national or historical importance, embodying excellence in architectural style, design, technology and material usage. They may be associated with a great historical event, personality, movement or institution. They have been and are, the prime landmarks of the City Heritage.

- *Objective*

Heritage Grade-I richly deserves careful preservation.

- *Scope for changes*

No interventions would be permitted either on the exterior or interior unless it is necessary in the interest of strengthening, and prolonging the life of the buildings or precincts or any part or features thereof. For this purpose, absolutely essential and minimal changes would be allowed and they must be in accordance with the original.

- *Procedure*

Development permission for the changes would be given by the Planning Authority on the advice of the Heritage Conservation Committee to be appointed by State Government.

- *Vistas/Surrounding Development*

All development in area surrounding Heritage Grade-I shall be regulated and controlled, ensuring that it does not mar the grandeur of or views from, Heritage Grade-I."

3 PRINCIPLES OF HERITAGE CONSERVATION APPLIED TO THE CASE STUDY

The overall objective of this thesis is to conserve a part of the identity of Chennai without compromising its development.

As said before, a listing of the heritage buildings in Chennai is being made. After, the CMDA may produce a Management Plan to look after the development of the area all around Central Station. The analysis grid can be part of this Plan, and can also help for the production of it as it will be done before.

The method to achieve the analysis grid is an integrated approach, because none of the criteria will be independent, all interact with each other. Based on articles with case studies in Taiwan, Turkey, Malaysia, Singapore and India and some documents that describe general principles of conservation, the grid will give global orientations made for decision-makers. It will be produced only for this area due to learned informations, and can eventually be adapted and reused (as each heritage and area is unique) for case studies.

First of all, the criteria have been established, with some global objectives. Every criterion can not be satisfied and implemented due to some constraints (financial, political, cultural...). The actors have to decide what they are willing to lose or to privilege. This work will try to be as complete as possible, according to the persons met and the data found, in order to give a large palette of alternatives.

The criteria are the following ones:

- **Historical and Architectural contexts**
- **Policies, Laws and Stakeholders**
- **Planning Documents**
- **Public awareness and involvement**
- **Culture, Tourism and Economy**
- **Environment, Landscape and Design**
- **Accessibility for everyone.**

The analysis grid may be used as a collection of guidelines to implement new projects in the area. Filled with questions, the aim here is not to answer the questions but to help planning, heritage and involved professionals to make the best possible decisions.

4 BROAD BASED FINDINGS

The broad based findings are that various criterias can be implemented, depending on the studied cases, on the authors and on the chosen methods for analysis. Nevertheless, some are standards and can be found in most of the listed criterias, like historical, social, environmental and cultural values. Then, additional values can be added to be more precise when analysing the case study.

What seems to be effective when launching a conservation project, is the involvement of professionals and authorities, public participation and enhancement of all the site values.

A Management Plan with precise conservation strategies may be relevant to manage the integration of historical buildings in its developing surroundings.

5 PROBLEMS

There is no real legislation about heritage: just global guidelines are given in official texts, there are no obligations and no compensations if the buildings are harmed. Texts are official only for great architecture and ancient buildings and monuments.

There are no means implemented to protect heritage, as it is not a priority for the city. It is protected only while it is useful for some activity. Here as long as it will be used as the major station of the city, Central will be taken care of. But for example Victoria Public Hall, on the same area, is neglected because of a poor use.

The only consideration about heritage conservation is architectural (it is mostly about keeping the materials in a good physical state), but it should also be from the point of view of planning (what does the building bring to the area? how can an area develop in a modern way with historical parts? etc).

It is a crowded area, with 10 lakhs people using it daily: Central (3,5 lakhs passengers for this station only), MMC, Park and Park Town MRTS stations.

In the future, the area will become even more crowded, with the new coming Metro Rail station: there will not only be more people, but also more crossing to manage, more safety problems. And for the moment people, crossing and safety are already problems to manage. Pedestrians are not safe: they cross the road where it is the most convenient for them, without using the underpass, in the middle of a congested road.

It is said that Central is becoming too small for the needs and that is why there was a will to become a World Class station, to principally provide more facilities and enlarge the number of rail tracks. Still the project has not resulted.

The lack of facilities in Central is noted: there are no medical centre, not enough points with drinking water, not enough seats for all the passengers waiting, not enough places to eat...

The area is dirty, there is garbage almost everywhere, and the river and air are in a bad state (view and smell). No dustbins can be seen clearly.

6 ISSUES

6.1 GLOBAL CONTEXT

The problems and issues identified related to the notion of (non) protection of heritage reflect deeper issues and more general, linked to mentality change because of globalization, of rapidly growing population generating urbanization, needs in housing, in infrastructures, in facilities, etc. What is urgent here is not the protection of ancient buildings, but the answer to immediate needs of the population. What happens then is that urgency does not permit the construction of high-quality buildings for example, because everything needs to be done quickly, sometimes with bad working conditions for the craftsmen and/or bad quality materials which will not last as long as old buildings.

Question is how to make people aware they have a rich cultural heritage, when their major concern is to earn enough to live properly? What is the place of heritage in such a context, where the need for development is the strongest, at all costs? What is the place of old buildings when modern buildings, always bigger, higher, more energy consuming, more "westernized" are being constructed all around them?

What is happening is that people do not feel concerned anymore. These buildings do not belong to them so they do not see the point in taking care of them. Globalization is more about market- and money-oriented development than solidarity, identity and differences which yet represent the territories.

This is true for old buildings, but not only: the garbage and waste growing everywhere in the urban and rural spaces, along the streets, in the rivers, on university campuses give evidence of it. If education is the first factor that may help improve the quality of life, the awareness to take care of the environment, the assertion that any small act counts, then the country may have to wait a little bit more before noting the effects of the awareness.

Still, the communication, information, public participation and authority has to begin now to not regret later the loss of valuable buildings.

6.2 THE STUDY AREA CONTEXT

6.2.1 *Central Station*

The station proposes various facilities and shops, but still faces the lack of some of the most important facilities such as drinking water facility and a medical unit. It also seems that the terminus has already reached its capacity to welcome the passengers, and is always crowded.

These are some issues directly linked to the station building, but there are other projects next to it, outside, that will surely have diverse impacts on this heritage building. Also, the proximity of other heritage buildings with a fine architecture enhances its value.

6.2.2 *The heritage buildings*

On the study area, with a 500 meters perimeter, can be found as previously seen 4 other heritage buildings presenting Indo-Saracenic architecture. As they are very close one to another and on the same line (Poonamallee Road) the potential of this heritage zone should be promoted. Also, it means that any change on one of the buildings can have an impact on the others around, as their common architecture link them. The major goal here would be to take advantage of their proximity to consider tourism development.

6.2.3 *Other issues*

The accessibility is the major functional issue on the area. In 2006, approximately 2,00,000 people per day were traversing the platforms embarking on journeys or arriving at Chennai.¹⁰⁵ Today, there are around 3,5 lakhs passengers using the station every day.¹⁰⁶ Nearly 10 lakhs people use Chennai Central, MMC, Park and Park Town MRTS stations daily.¹⁰⁷ With the new coming Metro Rail, estimated 1,00,000 more people per day will walk from the underground metro station to the Railway Station or outside.¹⁰⁸ How to manage all these passengers? How to keep the buildings on good conditions? How to answer to all the passengers' needs for facilities (drinking water, toilets, seats...)?

¹⁰⁵ <http://www.hindu.com/yw/2006/08/18/stories/2006081803360100.htm>

¹⁰⁶ <http://archive.asianage.com/chennai/central-station-lacks-drinking-water-facility-737>

¹⁰⁷ <http://m3chennai.com/2012/06/chennai-metro-rail-intermodal-links.html>

¹⁰⁸ <http://content.magicbricks.com/chennai-central-to-be-biggest-metro-station/>

The following picture aims at presenting the Metro Rail project.

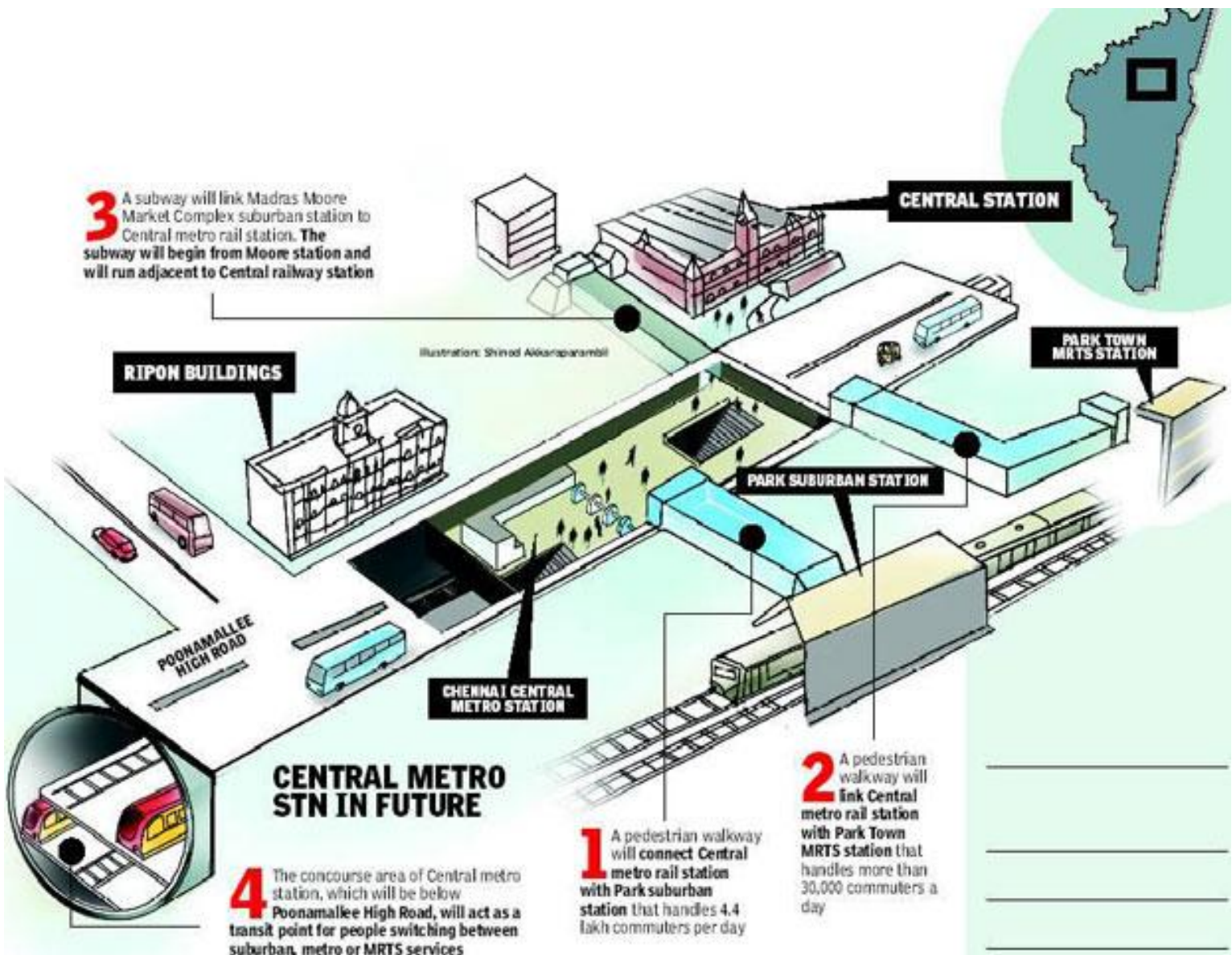


Figure 11: The Chennai Metro Rail station next to Central - Intermodal links

Source: <http://m3chennai.com/>

After that, there is a project of constructing a 1 km long skywalk "between the Park station subway and Muthusamy Road to expedite the progress of Metro Rail work on EVR Salai."¹⁰⁹

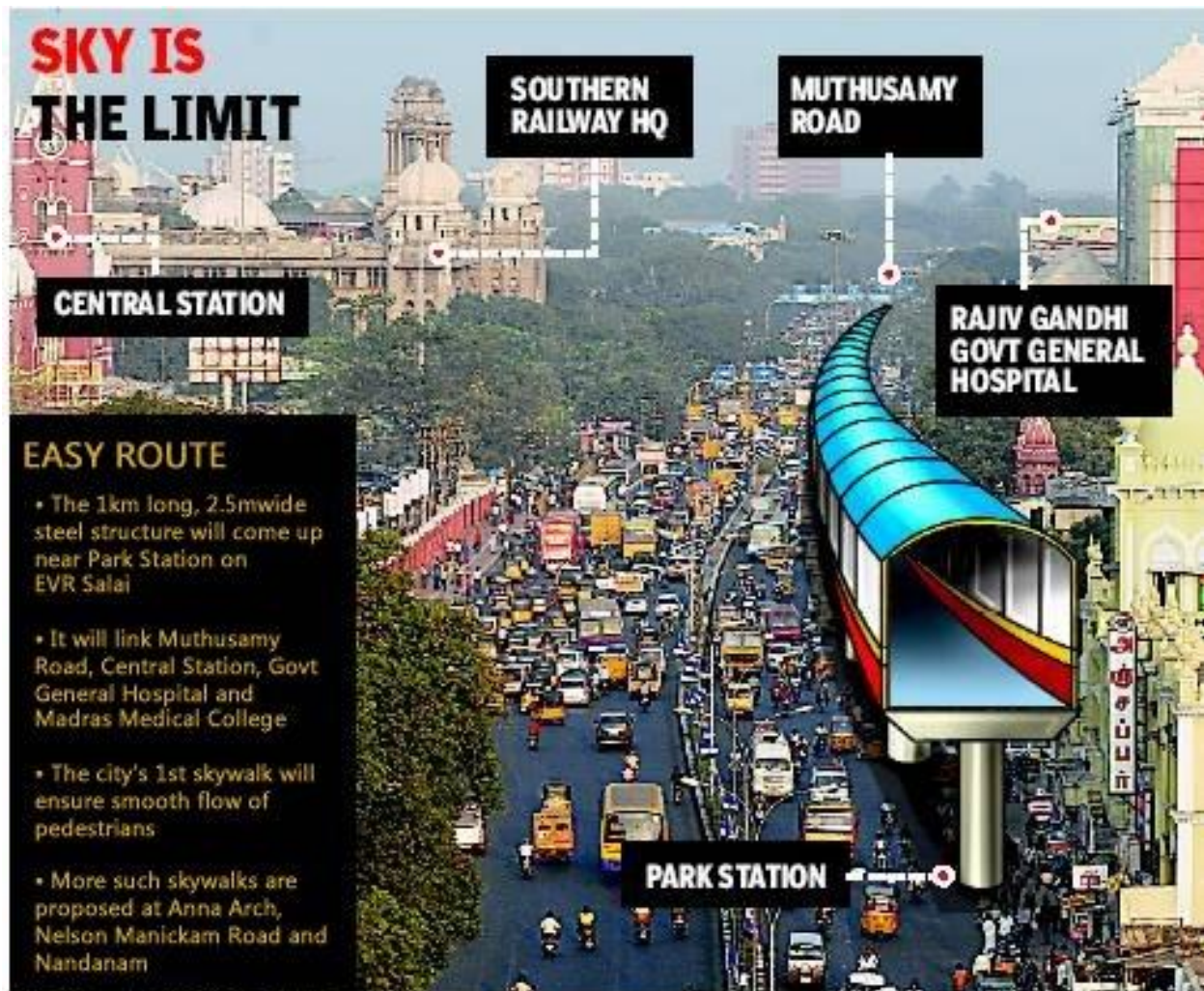


Figure 12: Modelisation of the future skywalk near Central Station

Source: <http://chennaiepages.com/>

Linked to all these uses and traffic problems, can be noted the lack of public spaces and/or gardens.

The final aim here would be making Chennai as a representative display and a good example of what is India today: a mix between traditions (the heritage buildings and their particular architecture) and modernity (the arrival of Metro Rail and future development projects).

¹⁰⁹ http://articles.timesofindia.indiatimes.com/2011-02-05/chennai/28374244_1_skywalk-metro-station-subway

PART III

*An analysis grid for the integration of
Chennai Central Station and its surroundings*





1 INTRODUCTION

The analysis grid described in this part gives global guidelines to begin with, when wanting to conserve the significant heritage of Indo-Saracenic architecture on the study area. All the strategies will not be followed due to some reasons (technical, financial, political...), so it is up to the decision-makers and planners to decide what should be done and in what order.

According to what has been learned about the area, the advice would be to begin with global policies concerning the area. Because without a structured and known legislative framework, it will more difficult to launch efficient actions to protect heritage. For that, the concerned actors have to be known, listed and involved. The production of planning documents can begin at this moment.

Then, only when the professional framework will be operational, public participation can be considered, with the help of surveys and interviews to identify clearly what are the recurrent problems on the area, what are people waiting for, and see what is their knowledge about the heritage on the area. Planning documents will then be completed with the data collected. Then step by step can be implemented projects concerning accessibility, Environment, culture, etc.

2 LITERATURE REVIEW ABOUT CONSERVATION

From the literature read, were found some ideas for criteria and conservation principles.

- [1] DUTTA Mousumi, HUSAIN Zakir, *An application of Multicriteria Decision Making to built heritage. The case of Calcutta*, Journal of Cultural Heritage 10, ELSEVIER, ScienceDirect, EMconsulte (2009)

This article deals with the Multi Criteria Decision Making (MCDM), which is used to determine the grading of heritage sites (4 different categories of grades). It is said that this method may be useful for the Management of built heritage in Urban Planning. With case studies in Calcutta, the authors take as major criterias: historical significance, architectural value and usability. Other criterias can be added, like: accessibility, integrity, response of owner(s) and local residents, sociocultural value...

[2] WANG Huey-Jiun, ZENG Zhi-Teng, *A multi-objective decision-making process for reuse selection of historic buildings*, ELSEVIER, ScienceDirect (2009)

The authors present different types of methods for analysis:

- Analytic Hierarchy Process (AHP), for a multi-criteria decision-making problem. Problem: there is an assumption that the criteria are independent, which is not relevant here. As we need an integration process, all criteria interact with each other.
- Analytic Network Process (ANP) tries to "*match the real world selection problem*". This method has been used more often these last years for decision-making problems.

The last method has been used by the authors on case studies in Taiwan, in order to "*introduce a comprehensive decision methodology for the selection of the best reuse of buildings that governments, developers, owners or architects may apply to their projects.*"

Their criterias are: historical value, cultural and artistic value, technological value, scenic/contextual value and environmental effect, and social value. They also add other criterias from various authors, as: integrity, authenticity, physical analysis of the building, public interest, economic aspect, continuity aspect...

[3] YILDIRIM Mücahit, *Assessment of the decision-making process for re-use of a historical asset: the example of Diyarbakir Hasan Pasha Khan, Turkey*, Journal of Cultural Heritage 13, ELSEVIER, ScienceDirect, EMconsulte (2012)

Here the article deals with an appropriate reuse of historic buildings in order to answer to the nowadays needs, linked to sustainability. The authors' goal is to propose adaptive re-use for these buildings, by enhancing their values (aesthetic, spiritual, social, historical, symbolic and authenticity values). Their methodology is based on 6 steps which will evaluate:

- *"the condition of the historical pattern,*
- *the condition of the environment,*
- *the integrity of the place,*
- *re-use alternatives and their advantages and disadvantages,*
- *owners' and users' requirements,*
- *assessment of results to determine the best re-use of the structure."*

This methodology is applied on a case study in Turkey.

[4] AZHARI Nik Farhanah Nik, MOHAMED Embong, *Public perception: Heritage Building Conservation in Kuala Lumpur*, ELSEVIER, ScienceDirect, Procedia, ASEAN Conference on Environment-Behaviour Studies, Bangkok, Thailand (2012)

The authors here, with an application in Kuala Lumpur, proceed that the success for conservation of heritage conservation depends mostly on the authority involvement and public participation. Knowledge about the buildings, understanding of the resources, involvement of the public, valuation of the community and the nation... are various elements that should be seriously considered to launch better conservation projects.

[5] Multiple authors, Presentation: Pierre Clément, Charles Goldblum, *Cités d'Asie*, Parenthèses Edition, Les Cahiers de la Recherche Architecturale 35/36 (1995) 258 p.

One of the text deals with the case study of Singapour, which has quite recently launched conservation projects, after great projects of constructing housing for the most poor of the city. The adopted point of view here is not necessarily to conserve the original use of the buildings, but more to give a positive image of the city by restoring the façades and implementing new activities. After the listing of their heritage buildings, the planners have rehabilitated some of them, and wanted to improve the environment by adding public places, pedestrian streets, green spaces. By acting a global urbanism project for the requalification of the fabric of the old city, it was more about boosting a political and symbolic act than an economical one.

Another case study is the one of China. Now, the saved historical areas are mentioned on the comprehensive plan of the cities. The cities with historical buildings are classified as areas to conserve in priority; any visual obstacle is forbidden. The activities around the buildings must be progressively adapted, and the polluting activities have to be moved. The role of the municipalities is to embellish the old cities, to restore the environment of the monuments and the historical sites, by enhancing landscaping values for example. Rules and measures have been adopted to preserve the particularities of these places from prospective damages.

[6] SCHEFFLER Nils, Lead Expert of the HerO Network, in cooperation with RIPP Matthias and BUHLER Barbara, HerO Lead Partner, *Cultural Heritage Integrated Management Plans - Thematic Report (4)*, HerO, URBACT II, European Union (2010).

With "*Safeguarding the Past - Facilitating the Future*" as a challenge, this document aims to give orientations when planning to produce an integrated Management Plan for preserving cultural heritage. It defines the contents of the document, which has to be adapted to each particular situation. It should be composed of:

- *"Introduction*
- *Identifying issues*
 - o *Understanding the historic urban area*
 - o *Stakeholders, Structures, Procedures*
- *Appraisal*
 - o *Overall vision and general objectives for the area*
 - o *Field of actions, objectives, strategies (integrated approach)*
 - o *Organisational and Operational structures and procedures (management structure, including continuous monitoring and review)*
- *Implementation and Monitoring*
 - o *Action Plan / Implementation Plan*
 - o *Continuous monitoring and review"*

The fields of action given as example are the following: Preservation of the cultural heritage, Environmental issues, Economic development, Tourism, Urban

planning and development, Demographic development, Education and awareness raising, Science and research.

The method proposed is to, based in the **demands**, list **fields of action** to answer to these demands, then **topics** for each field, then **goals/strategies** to realize the preceeding topics, then **actions/tools** that should be made, in order to get **satisfaction**. The authors particularly underline the importance for monitoring, even after the conservation projects are finished.

3 IDEAS FROM OFFICIAL DOCUMENTS AND CHARTS ABOUT CONSERVATION

In this part will be transcribed global orientations given in Official Documents of ICOMOS, UNESCO and INTACH. The aim is to glimpse few ideas, presented as keywords, judged relevant for this project, at the International Level, to see how they can be adapted to lower levels (National, State and local).

3.1 ICOMOS (International COuncil on MOnuments and Sites)

*«Responsibility for cultural heritage and the management of it belongs, in the first place, to the cultural community that has generated it, and subsequently to that which cares for it. However, in addition to these responsibilities, adherence to the international charters and conventions developed for conservation of cultural heritage also obliges consideration of the principles and responsibilities flowing from them.»*¹¹⁰

¹¹⁰ ICOMOS, The NARA Document on Authenticity, Nara - Japan Conference (1994)

3.1.1 *Charter for the Conservation of Historic Towns and Urban Areas (Washington Charter 1987)*

Places concerned	Historic urban areas, large and small, including cities, towns and historic centres or quarters.
Coherent Policies	The conservation of historic towns and other historic urban areas should be an integral part of economic and social development and of urban and regional planning at every level.
Qualities to be preserved	The historic character of the town or urban area and all those material and spiritual elements that express this character <ul style="list-style-type: none"> - Urban patterns as defined by lots and streets; - Relationships between buildings and green and open spaces; - The formal appearance, interior and exterior, of buildings as defined by scale, size, style, construction, materials, colour and decoration; - The relationship between the town or urban area and its surrounding setting, both natural and man-made; and - The various functions that the town or urban area has acquired over time.
Participation and the Involvement of the residents	Essential for the success of the conservation programme and should be encouraged. The conservation of historic towns and urban areas concerns their residents first of all.
Traffic	Must be controlled and parking areas must be planned so that they do not damage the historic fabric or its environment.

3.1.2 *Nara Document on Authenticity (1994)*

Responsibility and Management	Belong to the cultural community that has generated it, and subsequently to that which cares for it.
International Charters and Conventions	Adherence to them obliges consideration of the principles and responsibilities flowing from them.
Sources of Information	The knowledge and understanding of them, in relation to original and subsequent characteristics of the cultural heritage, and their meaning, is a requisite basis for assessing all aspects of authenticity.
Awareness	Increasing it within the public of this fundamental dimension of heritage is an absolute necessity in order to arrive at concrete measures for safeguarding the vestiges of the past.

3.1.3 *International Cultural Tourism Charter: Managing Tourism at Places of Heritage Significance (1999)*

Increasing Globalisation	The protection, conservation, interpretation and presentation of the heritage and cultural diversity of any particular place or region is an important challenge for people everywhere.
Primary objective	To manage heritage, communicate its significance and need for its conservation to its host community and to visitors.
Tourism	Should bring benefits to host communities and provide an important means and motivation for them to care for and maintain their heritage and cultural practices.
Involvement and co-operation	Local and/or indigenous community representatives, conservationists, tourism operators, property owners, policy makers, those preparing national development plans and site managers... to achieve a sustainable tourism industry.
Programmes for the protection and conservation	Of the physical attributes, intangible aspects, contemporary cultural expressions and broad context, should facilitate an understanding and appreciation of the heritage significance by the host community and the visitor, in an equitable and affordable manner.
Management plans	Should assess the natural and cultural values of the resource. They should then establish appropriate limits of acceptable change, particularly in relation to the impact of visitor numbers on the physical characteristics, integrity, ecology and biodiversity of the place, local access and transportation systems and the social, economic and cultural well being of the host community. If the likely level of change is unacceptable the development proposal should be modified.
Host communities and Indigenous peoples	Should be involved in establishing goals, strategies, policies and protocols for the identification, conservation, management, presentation and interpretation of their heritage resources, cultural practices and contemporary cultural expressions, in the tourism context.
Policy makers	Should promote measures for the equitable distribution of the benefits of tourism to be shared across countries or regions, improving the levels of socio-economic development and contributing where necessary to poverty alleviation.
Conservation management and tourism programmes	Should include education and training opportunities for policy makers, planners, researchers, designers, architects, interpreters, conservators and tourism operators.

3.1.4 ICOMOS Charter- Principles for the Analysis,
Conservation and Structural Restoration of
Architectural Heritage (2003)

Multidisciplinary Approach	For conservation, reinforcement and restoration of architectural heritage
Value and Authenticity	Cannot be based on fixed criteria because the respect due to all cultures also requires that its physical heritage be considered within the cultural context to which it belongs.
Multidisciplinary Team	To be determined in relation to the type and the scale of the problem, should work together from the first steps of a study - as in the initial survey of the site and the preparation of the investigation programme.
Data and information	Should first be processed approximately, to establish a more comprehensive plan of activities in proportion to the real problems of the structures.
“Traditional” and “Innovative”	The choice between the 2 techniques should be weighed up on a case-by-case basis and preference given to those that are least invasive and most compatible with heritage values, bearing in mind safety and durability requirements.
Measures adopted	Should be “reversible” so that they can be removed and replaced with more suitable measures when new knowledge is acquired. Where they are not completely reversible, interventions should not limit further interventions.
Checking and monitoring	Should be documented and kept as part of the history of the structure.

3.1.1 *The Valletta Principles for the Safeguarding and Management of Historic Cities, Towns and Urban Areas (2011, update of 1987)*

Political Governance	Changes in it require new structures and new conditions in towns and urban areas. These are also necessary to counteract segregation and social rootlessness as part of attempts to reinforce identity.
Heritage as an essential Resource	It is fundamental to consider it as part of the urban ecosystem. This concept must be strictly respected in order to ensure harmonious development of historic towns and their settings.
Sustainable Development	This notion of has gained such importance that many directives on architectural planning and interventions are now based on policies designed to limit urban expansion and to preserve urban heritage.
Buffer Zone	Well-defined zone outside the protected area whose role is to shield the cultural values of the protected zone from the impact of activities in its surroundings. This impact can be physical, visual or social.
Management Plan	Document specifying in detail all the strategies and tools to be used for heritage protection and which at the same time responds to the needs of contemporary life. It contains legislative, financial, administrative and conservation documents, as well as Conservation and Monitoring Plans.
Change	Must be used to: improve the environmental context in historic towns and urban areas; improve the quality of air, water and soil; foster the spread and accessibility of green spaces; and to avoid undue pressure on natural resources.
New activities	Must be carefully managed to avoid secondary negative effects such as transport conflicts or traffic congestion. Must not compromise the survival of traditional activities or anything that supports the daily life of the local inhabitants. Before introducing a new activity, it is necessary to consider the number of users involved, the length of utilization, compatibility with other existing activities and the impact on traditional local practices.
Planning	Requires up-to-date precise documentation and recording (context analysis, study at different scales, inventory of component parts and of impact, history of the town and its phases of evolution, etc.).
Good Governance	Makes provision for organizing broad orchestration amongst all stakeholders: elected authorities, municipal services, public administrations, experts, professional organizations, voluntary bodies, universities, residents, etc.
Construct new buildings or adapt existing ones	Contemporary architecture must be coherent with the existing spatial layout in historic towns as in the rest of the urban environment.
Pedestrians	Most historic towns and urban areas were designed for them and slow forms of transport. Gradually these places were invaded by the car, causing their degradation. At the same time, quality of life has reduced. It is important to encourage pedestrian circulation.

Roadways	Should be studied and planned to give priority to pedestrians. Parking facilities should preferably be located outside protected zones and, if possible, outside buffer zones. traffic should be drastically limited and parking facilities reduced. At the same time, sustainable, non-polluting public transport systems need to be introduced, and soft mobility promoted.
Underground infrastructure	Such as subways, must be planned so as not to damage historic or archaeological fabric or its environment.
Tourism	Can play a positive role in the development and revitalisation of historic towns and urban areas. The development of tourism in historic towns should be based on the enhancement of monuments and open spaces; on respect and support for local community identity and its culture and traditional activities; and on the safeguarding of regional and environmental character. Tourism activity must respect and not interfere with the daily life of residents.

3.2 UNESCO (United Nations Educational, Scientific and Cultural Organization)

«Governments, site managers and community members are all responsible for protecting the sites so that their values will continue to endure. [Asia] is the fastest-growing economic region in the world which, combined with the fact that it is also prone to frequent natural disasters, creates unique challenges for the management and conservation of heritage sites. These factors make effective day-to-day management all the more essential if these sites are to be safeguarded for the long term.»¹¹¹

3.2.1 Operational Guidelines for the Implementation of the World Heritage Convention (2008)

These are some of the responsibilities the States Parties presenting heritage have:

- ensure the identification, nomination, protection, conservation, presentation, and transmission to future generations of the cultural and natural heritage found within their territory;
- adopt general policies to give the heritage a function in the life of the community;
- integrate heritage protection into comprehensive planning programmes;

¹¹¹ UNITED NATIONS EDUCATIONAL, SCIENTIFIC AND CULTURAL ORGANIZATION, *Understanding World Heritage in Asia and the Pacific - The Second Cycle of Periodic Reporting 2010-2012*, World Heritage papers, n° 35 (2012)

- establish services for the protection, conservation and presentation of the heritage;
- develop scientific and technical studies to identify actions that would counteract the dangers that threaten the heritage;
- take appropriate legal, scientific, technical, administrative and financial measures to protect the heritage;
- foster the establishment or development of national or regional centres for training in the protection, conservation and presentation of the heritage and encourage scientific research in these fields;
- not take any deliberate measures that directly or indirectly damage their heritage or that of another State Party to the Convention;
- submit to the World Heritage Committee an inventory of properties suitable for inscription on the World Heritage List (referred to as a Tentative List);
- use educational and information programmes to strengthen appreciation and respect by their peoples of the cultural and natural heritage, and keep the public informed of the dangers threatening this heritage [...].

Integrity and/or Authenticity	The ability to understand the value attributed to the heritage depends on the degree to which information sources about this value may be understood as credible or truthful. Knowledge and understanding of these sources of information, in relation to original and subsequent characteristics of the cultural heritage, and their meaning, are the requisite bases for assessing all aspects of authenticity.
Protection and Management	Legislative and regulatory measures at national and local levels should assure the survival of the property and its protection against development and change that might negatively impact the outstanding universal value, or the integrity and/or authenticity of the property. States Parties should also assure the full and effective implementation of such measures.
Buffer Zones	Area surrounding the nominated property which has complementary legal and/or customary restrictions placed on its use and development to give an added layer of protection to the property. This should include the immediate setting of the nominated property, important views and other areas or attributes that are functionally important as a support to the property and its protection. The area constituting the buffer zone should be determined in each case through appropriate mechanisms. Details on the size, characteristics and authorized uses of a buffer zone, as well as a map indicating the precise boundaries of the property and its buffer zone, should be provided in the nomination.
Effective Management System	Depends on the type, characteristics and needs of the nominated property and its cultural and natural context. Management systems may vary according to different cultural perspectives, the resources available and other factors. They may incorporate traditional practices, existing urban or regional planning instruments, and other planning control mechanisms, both formal and informal.

3.3 INTACH (Indian National Trust for Art and Cultural Heritage)

«Conserving the unprotected architectural heritage and sites ensures the survival of the country’s sense of place and its very character in a globalising environment. It offers the opportunity not only to conserve the past, but also to define the future. It provides alternate avenues for employment and a parallel market for local building materials and technologies, which needs to be taken into account when resources for development are severely constrained.»¹¹²

3.3.1 Charter for the Conservation of Unprotected Architectural Heritage and Sites in India

India’s architectural Heritage and Sites	Majority of them are unprotected, and however constitute a unique civilization legacy.
Unprotected heritage sites	Are still in use, and the manner in which they continue to be kept in use represents the ‘living’ heritage of India. This heritage is manifest in both tangible and intangible forms, and its diversity defines the composite culture of the country. Beyond its role as a historic document, this unprotected heritage embodies values of enduring relevance to contemporary Indian society, thus making it worthy of conservation.
‘Living’ heritage	Is not legally protected. The buildings and sites, which constitute it, are subject to demolition or unsympathetic interventions. The knowledge of traditional building skills with which it is associated is also in danger of being lost in the absence of patronage and official recognition. Conserving the ‘living’ heritage, therefore, offers the potential to conserve both traditional buildings and traditional ways of building.
Unprotected architectural heritage and sites	Conserving them ensures the survival of the country’s sense of place and its very character in a globalising environment. It offers the opportunity not only to conserve the past, but also to define the future. It provides alternate avenues for employment and a parallel market for local building materials and technologies, which needs to be taken into account when resources for development are severely constrained.
Objective of conservation	Maintain the significance of the architectural heritage or site. Significance is constituted in both the tangible and intangible forms. The process of Listing must determine the characteristics of significance and prioritise them.
Conservation of architectural heritage and sites	Must retain meaning for the society in which it exists. This meaning may change over time, but taking it into consideration ensures that conservation will, at all times, have a contemporary logic underpinning its practice. This necessitates viewing conservation as a multi-disciplinary activity.

¹¹² <http://www.intach.org/about-charter-principles.asp?links=about3a>

Conservation in India	Heir not only to Western conservation theories and principles introduced through colonialism and, later, by the adoption of guidelines formulated by UNESCO, ICOMOS and international funding agencies, but also to pre-existing, indigenous knowledge systems and skills of building. These indigenous practices vary regionally and cannot be considered as a single system operating all over India. This necessitates viewing conservation practices as a multi-cultural activity.
Western ideology of conservation	Advocates minimal intervention, but India's indigenous traditions idealize the opposite. Western ideology underpins official and legal conservation practice in India and is appropriate for conserving protected monuments.
Conserving unprotected architectural heritage	Offers the opportunity to use indigenous practices. This does not imply a hierarchy of either practice or site, but provides a rationale for encouraging indigenous practices and thus keeping them alive. Before undertaking conservation, therefore, it is necessary to identify where one system should be applied and where the other. For this purpose, it is necessary at the outset to make a comprehensive inventory of extant heritage.
Hybrid strategies	Inventively combining indigenous and official practices, can also be employed to conserve this heritage.
Overarching objective	For undertaking conservation of unprotected architectural heritage and sites is to establish the efficacy of conservation as a development goal. What to conserve will, therefore, be determined by those strategies of conservation, which accommodate the imperatives of development and the welfare of the community while seeking economically to achieve maximum protection of the significant values of the architectural heritage and site.

These are some thematics to take into account:

- **Conservation Ethics**
 - Authenticity
 - Conjecture
 - Integrity
 - Patina
 - Rights of the indigenous community
 - Respect for the contribution of all periods
 - Inseparable bond with setting
 - Minimal intervention
 - Minimal loss of fabric
 - Reversibility
 - Legibility
 - Demolish/Rebuild
 - Relationship between the conservation architect and the community.
- **Conservation Objectives**
 - Retain visual identity
 - Adaptive re-use
 - Restoration/Replication/Rebuilding
 - Employment generation
 - Local material and traditional technology
 - Integrated conservation
 - Sustainability

- **Listing**
 - Inventory of properties/buildings
 - Mapping of vernacular architecture and historic settlements
 - Detailed format for all the structures
 - Gradings
- **Guidelines for conservation**
 - Heritage zone
 - Role of conservation architects
- **Management and Education**
 - Role of local communities
 - Role of INTACH
 - Fiscal measures
 - Tourism
 - Punitive measures
 - Public responsibilities
 - Public awareness
 - Education in primary and secondary schools
 - Undergraduate education
 - Post-Graduate education
 - Education and training of craftspeople

Here are presented the guidelines to follow when listing heritage buildings:

- **Economy**
 - Using our Building Stock
 - Stability and Continuity
 - Economic Regeneration
 - Value of Good Environment
 - Employment and Training
 - Education
 - Tourism
- **Culture**
 - History
 - Aesthetic
- **Environment**
 - Sense of Place
 - Landmarks
 - Human Scale
 - Townscape

The criteria for Listing Built Architectural Heritage are:

- **Historic Significance**
- **Historic Integrity**
- **Historic Context.**

4 ANALYSIS OF THE DATA FOUND

4.1 HERITAGE: VALUES AND OPPORTUNITIES

Heritage satisfies a variety of needs, represents often various identities, has a role for social cohesion, contributes to the quality of life and can be an answer for sustainable development. This can work only if the knowledge about heritage is not reserved to a certain social category but for most of the population. It also represents a major role in:

- *"earning profits through tourism,*
- *aesthetics,*
- *recreation,*
- *creating positive image of the area,*
- *improving the living environment"*¹¹³,
- *"shaping places, whether in cities, towns or countryside,*
- *cultural identity and memory,*
- *amenity values (creating pleasant places)"*¹¹⁴.

Protecting it means protecting the identity and heritage of a place, of a city, of a country. All around the World, at various speeds depending on the countries and their policies, the way heritage is perceived begins to change: *"Heritage has always been valued because it is old, or beautiful or created by a major artist; today we are adding new values and recognising that it can be painful, dramatic or unpleasant. It may reflect cultural diversity rather than national unity."*² This extends the values of heritage to make it become always more complex, and sometimes gives us more reasons to protect it.

Nowadays, one of the development which seems to be the most relevant for our planet and people is sustainable development. It is said to concern economy, environment and social, but some of its principles can be applied to cultural heritage, in order to protect it and integrate it in a development processus. Some of these principles are:

- *"understanding the resources as a basis for decisions,*
- *bottom up as well as top down approaches to conservation,*
- *monitoring loss as a basis for informing decisions,*
- *reconciling development and conservation, rather than seeing them as opposing forces,*

¹¹³ AZHARI, MOHAMED, 2012

¹¹⁴ THE LONDON GROUP, 2000

- *considering economic, social and conservation aims together rather than separately.*"²

4.2 PUBLIC PARTICIPATION AND PROFESSIONALS

INVOLVEMENT: KEYS TO CONSERVATION

Involving people may be the key to preserve efficiently heritage: *"it is a win-win situation that will benefit both the public and the government directly or indirectly. This concerted effort, being supported by various stakeholders - the building owner, the professional and competent technical personnel may promise the bright prospect of the heritage building conservation efforts [...]"*¹. When communication is part of a conservation process, people may feel concerned and may act to help protecting their identity, shown through heritage buildings. Not only inhabitants should be involved clearly, but also professionals, actors of heritage, authority and stakeholders. For that, everyone has to recognize the values that should not be lost.

What is to be known is that interest of people may depend on the initial physical state of the building, that *"the heritage building conservation efforts require knowledge and understanding of the resources and the history they represent"*, and that *"the authority's policy play an ultimate duty to encourage public participation to together safeguard the nation's heritage"*.¹¹⁵

All the professionals need to work together to launch more efficient project. The importance for integrated conservation, which implies dealing with more problematics than before, must not be under estimated.

4.3 FOCUS ON URBAN PLANNING

Urban planning is the major process which can manage, organize and facilitate the urban growth nowadays and all the above points that have been collected and raised. Planning becomes more and more complex, because the scales are sometimes exploding, the population is growing, and so are the needs, the globalization and mentality-change bring new needs and all these phenomena may harm the environment, natural, tangible, intangible, alive or not. It is the planners' duty to ensure a sustainable growth of urbanity while preserving all the territory's natural resources and the identity of places. Urban planning has to deal with many components (urban or rural, but for this study only urban are considered), from infrastructures to amenities, via transportation, housing, public spaces, Environment, energy, etc, and... heritage questions.

¹¹⁵ Harun, S. N. (2011), *Heritage Building Conservation in Malaysia: Experience and Challenges*, Procedia Engineering 20, ELSEVIER.

Heritage must not be considered as what makes a land value decrease, it has to be the symbol that makes a land more valuable. Because heritage is the representant of a local identity, it is a real symbol which is specific to every place where it lies.

Nevertheless, today is the need for development, and usually development is associated with growth, "western-like" trends, bigger buildings, energy consumption, urban spreading, etc. The mentalities are changing, and so the forgetting of the past is happening. The demolish/reconstruct process is privileged and often older buildings are being replaced by newer buildings, usually with poor knowledge and bad quality materials.

Instead of keeping the old buildings which are usually resistant to the time's effects, which propose big open spaces and effective cooling, new buildings, closed to the outside, in huge needs for energy (lighting, air conditioning, etc) are being constructed. Instead of keeping what makes a territory different from the others, which makes it richer, the trend is to homogenize the cultures and the ways of thinking. The need for now is to make people aware of the threats against heritage, to make them aware they should protect it even if it does not belong to them. The beginning for awareness should begin now, before it is too late and before major historic buildings disappear.

This is where planners can step in. Heritage conservation is not necessarily an urban 'problem', slowing down the development. On the contrary, it may be a key useful for solving urban problems and bridging the gap between preservation, development and urban planning. It seeks to resolve differences created by past decisions while moving forward into the future.

Planners need to consider that the values of heritage are no longer only cultural, historical and scientific, but are also related to social, economical and environmental concerns, so with sustainability.¹¹⁶ When documents with precise guidelines and orientations are produced, *"the integration of heritage structures with new development can be attractive and economically viable"*¹¹⁷. *"As such, urban policymakers must recognize heritage conservation as a form-function phenomenon that is affected by a series of intervention decisions"*¹¹⁸.

To improve and promote the local economy of a territory with the help of tourism, all the values linked to heritage may be useful: the history, the traditions, the symbols, the culture(s)...

¹¹⁶ Jokilehto J., *A history of architectural conservation*, Oxford: Butterworth Heinemann (2006)

¹¹⁷ Elsorady A. Dalia, *Heritage conservation in Rosetta (Rashid): a tool for community improvement and development*, ELSEVIER, Cities, 29 (2012).

¹¹⁸ Ashworth G., *Heritage planning: Conservation as the management of urban change*, Netherlands: Geo Pers. (1991)

Heritage conservation must be a long-term process, constantly renewed, which is useful for development goals of particular areas. Heritage must be part of the development process, it must not be excluded of it.

Knowledge in Urban Planning will be more than relevant to produce a Management Plan that respects the past, deals with the present and looks to the future.

5 CONSTRUCTION OF THE GRIDS

As said previously, the grid constructed during work has been inspired by a research work "*R+0!*". The aim of this work was to "*understand the interaction emerging between the issues of sustainable development and enhancement of heritage during actual territorial changes*".¹¹⁹

This work proposes the production of a tool which could be used by decision-makers, as well as planners and other concerned actors by heritage and planning in general. It would be used for the analysis and the evaluation of the work already done on an area in order to improve it, by raising questions concerning public participation, creation of policies, the value of heritage or sustainability.

Back to the case study: according to the informations collected and the vision of heritage in an Indian context, 7 thematics have been found. Each one is subdivided in **global objectives**: different goals that idealistically should be attained. The objectives are sub-divided in 2 categories:

- **Topic**: global questions linked to each objective
 - o **Issue**: questions detailing the topic
- **Strategy**: If possible, for each question a strategy has been given, explaining how to reach the goal, and/or why.

The goal of this research project was not to answer the raised questions about the protection of heritage buildings, about the development of the area studied and the effective application of planning documents.

First the idea was to establish general thematics that should be considered in any planning project, applied to a singular case of heritage in an Indian context. For each of the thematics, would be raised as much as pertinent issues as possible, in order to make planners question themselves about the process of planning and of heritage conservation in Chennai.

¹¹⁹ CARABELLI Romeo, LARRIBE Sébastien, BAILLEUL Hélène, OUESLATI Imen, BEN HAMMED Sonia, RIGONI Stefano, *R+0! Développement durable et valorisation de l'héritage patrimonial dans la conception des espaces publics*, Bononia University Press (2011) 96 p.

Central Station has a great potential for tourism, and to be a landmark place of the city. The bias was that if the concerned actors were trying to answer the questions, and if they know why it is needed to answer them, the result would be much more efficient as actors would feel concerned: they only found the answers.

This document has not the pretentiousness to be complete or always pertinent, or even to say what work should planners in Chennai do. The planning field, as it evolves, becomes more and more dense and complex, so it is sometimes necessary to put things right. This work can even be only a draft that will lead to better comprehensive planning methods and conservation works. But at least, raising questions can be the first step.

This comprehension tool aims at analyzing the actions systems, the actors networks and the spatial layouts of the area, in order to make them clearly known.¹¹⁹ This work is not establishing normative models but building step by step, with the coordination of actors and the progressive participation of public, a database which will guide the planners and the decision makers when planning a new project which could have impacts on heritage.

6 QUICK DESCRIPTION OF THE GRIDS

Urban planning is a complex domain, as it is supposed to deal with various themes. For this subject, some themes have been identified, due to the study of the issues linked to the study area. They will be used as criterias for the definition of the analysis grid.

Different scales of action have also been identified. Followed by political and professionals' will, a better comprehensive planning can be made around historical legacy.

The analysis grid of this project can be used as a proposal. It gives global guidelines to begin with when wanting to conserve the significant heritage of Indo-Saracenic architecture on the study area.

According to what has been learned about the area, the advice would be to begin with global policies concerning the area. Because without a structured and known legislative framework, it will more difficult to launch efficient actions to protect heritage. For that, the concerned actors have to be known, listed and involved. The production of planning documents can begin at this moment.

Then, only when the professional framework will be operational, public participation can be considered, with the help of surveys and interviews to identify clearly what are the recurrent problems on the area, what are people waiting for, and see what is their knowledge about the heritage on the area. Planning documents will then be completed with the date collected. Then step by step can be implemented projects concerning accessibility, Environment, culture, etc.

6.1 HISTORICAL AND ARCHITECTURAL CONTEXTS

History does not even need to be justified, as it is indispensable when talking about heritage. **Architecture** is relevant here as Indo-Saracenic architecture is typical from India, it was born in Chennai and it represents a mix of cultures, an identity.

6.2 POLICIES, LAWS AND STAKEHOLDERS

Adapted Policies and Laws need to be produced, as no project can be made without the involvement of politics and institutions. Actors and governance are then essential to conduct a project with the help of their skills and knowledge, and their cooperation. Actors need to be listed, and the roles to be redefined to know exactly who does what, in terms of conservation, planning, architecture, management, maintenance...

6.3 PLANNING DOCUMENTS

To get a more effective conservation policy, the **planning process** should not forget public involvement, public and private initiatives, cultural and economic needs and the maintenance of public openness.¹²⁰

6.4 PUBLIC AWARENESS AND INVOLVEMENT

Public awareness and involvement, as said before, need to be part of conservation process, because it cannot be completely efficient if there is not public participation.

6.5 CULTURE, TOURISM AND ECONOMY

About **Culture and Tourism**, Chennai already has got the potential for it, now the need is to reveal it and take advantage of it. The city has the great chance that an original architecture style has been born within it, and that a lot of buildings of this style are situated all over the city. The fact that it is multicultural could be highlighted. Also, as Central Station is a symbol of the city, it could be used as the main point for a heritage walk for example.

¹²⁰ Cohen N., *Urban conservation*, Cambridge, Massachusetts, MIT Press (1999)

6.6 ENVIRONMENT, LANDSCAPE AND DESIGN

Environment needs to be considered, as it is nowadays a major theme which permits to improve the quality of life and helps to protect the Planet. Keeping the place in a good physical state may help for its conservation.

6.7 ACCESSIBILITY FOR EVERYONE

Accessibility for everyone becomes an obvious criteria when visiting the site, as the case study is the major station of the city, it is overcrowded by various transportation modes like bus, rickshaws, cars, motorcycles, bicycles, and also pedestrians. The place will surely be even more busy when the Metro Rail will circulate. So something has to be made to fluidize the traffic and ensure safety of the pedestrians.

7 THE PROPOSED ANALYSIS GRID

FIELD OF ACTION	OBJECTIVE	TOPIC	ISSUE	STRATEGY
Historical and Architectural contexts	Increase the knowledge about the site	What can be assumed about the main building studied?		Increase the knowledge to impulse a better conservation practice
		Where is it located?	Produce maps (2D, 3D if possible) to improve the outlook of the area	
		When was it built? Any additional construction?	Safeguard the physical state of the tangible heritage	
		What was the original use?	Understand the evolution, how and why did it become what it is today	
		What is the present use?	Know what need(s) it answers to, see if it has to change or not, why	
		Who is the owner?	The owner has to be involved in the conservation and development process	
		What is the land use zoning?	Protect the historical buildings by modifying or not the land-use in the protecting perimeter around them (landscaping, protection...)	
	Preserve the historical value of the site	What characterizes the site?		Increase the knowledge to know better what must be conserved or not
		Are there any particular trends, patterns or themes exhibited by the building?	Protect these trends and promote them as a valuable tool for conservation	
		Are there any events associated with the buildings?	Promote them under public participation	
		Who is associated with the building?	Use this information for cultural purpose	
		What is the historical significance?		Find the historical values of the building and share them with the public, for cultural and tourism purposes
		Why was it constructed?	Know more about the first use will help to know more not only about the building itself, but surely about a larger scale	
		Is there any symbolism linked to the building?	Promote this symbolism ; it will be linked with the building, which could be a communication tool	
	Enhance the historical value of the site	How to make people aware of the historical value of the building?		Encourage the involvement of people by increasing their knowledge and arouse their curiosity
		Are informations about heritage reserved to architecture students and professionals?	Preserve the building in order to will it to future generations	
		Are there any animations/events about cultural heritage in the city?	Encourage the involvement of people by increasing their knowledge and arouse their curiosity	
	Take advantage of location and exceptionality of the project site	What are the heritage specificities?		Describe and highlight the specificity of the heritage
Are there tools of heritage protection?		Identify the different grades given to the recognized historical buildings on the area studied Tell what are the recommendations and rules for the grades		
Is a restoration on project site going on?		Highlight the heritage site and underline the specificity of historical buildings: urban design, architects involved, environment...		
Can any exceptional value be seen?		Measure the wonderful specificities of the buildings and the area studied, highlight the eventual valorisations that could be made		
How is the preservation of heritage forecast?		Make sure that the project improves the heritage qualities of the project site		
Are there any actions for preservation and are they promoted?		If such actions are established, make sure they are valorised		
Does the project expect material to be protected?		Identify the existing restoration or rehabilitation of historical heritage and describe it Research and develop specific repair methods appropriate to the unique building		
Are valorisation of local economy and protection of activities linked to heritage predicted?		Make sure these projects respect and helps the development of the area		
Are the specificities of the site well valorised?		Reinforce the characters and the identity of the site and its heritage role within the city		
Does the conservation project emphasize the need for integration of the historical building?		Valorise the existing built heritage and the open spaces if any in the conservation project process		
Does the conservation project benefit from the specificities of the site for the future development of the area?	Prioritize the valorisation and enhancement of present heritage to encourage the durability of its development			
Increase the knowledge about Indo-Saracenic architecture	What can be assumed about this architecture?		Collect informations about Indo-Saracenic architecture	
	What kind of design is it?	Collect informations about the design and highlight them		
	Where can it be seen?	Go on site and produce maps to situate such buildings, with the existing land use around		
	What kind of materials are used?	Improve the knowledge about the building's architecture (state of the art of the materials) Employ traditional building skills in conservation work and also new construction activity Keep loyalty to original building as much as possible if restored		
	What is the architectural significance of this architecture?	Collect informations from literature and professionals to enhance the value of the heritage		
	Who initiated this type of work?		Collect informations about who originated this type of buildings	
	Who were the developers?	Enhance the knowledge		
	Who were the builders?	Enhance the knowledge		
Highlight the Indo-Saracenic architecture, born in Chennai	What informations can be found about this architecture particularly in Chennai?		Collect informations to push the particularities of Indo-Saracenic buildings	
	When was it born there?	Highlight the fact that Indo-Saracenic architecture is pioneered in Chennai		
	Are there other buildings with this architecture? Where? In what are they different?	Distinguish Central Station from other Inod-Saracenic Buildings		
	What is particular about Central Station?		Collect informations to push the particularities of Central Station	
	When was it built?	Enhance the knowledge		
	Who built it?	Enhance the knowledge		
	What is the physical condition of it today?	Improve the maintenance to keep the buildings in good physical conditions		
	What can be said about its design integrity?	Make a state of the art of the existing buildings, their function(s) and particularities and make sure the parts that can be valorised are preserved		
What is the architectural significance of the building?	Highlight the fact that Central Station is an historical symbol of the city, it is a part of the identity of Chennai Highlight the fact that this type of architecture is a mix of cultures			

FIELD OF ACTION	OBJECTIVE	TOPIC	ISSUE	STRATEGY	
Policies, Laws and Stakeholders	Verify the coherence of the projects with the planning strategies	What is the prospective vision for the area?		Determine what will be the future of the area including heritage buildings	
		Who has written them?	Are there any prospective planning documents?	Identify what has already been done concerning planning, conservation of heritage and land use and analyze the issues to see if they are still valid	
			Do conservation projects can generate a political technical contradictory debate?	Determine if the prospective documents have been written by the qualified concerned actors Contact these actors to analyze their point of view, interact with them and improve the documents if needed	
			What are the planning strategies if any?	Identify the eventual conflicts, if they can be resolved. If not, try to satisfy the greatest number of people	
		Do the strategies reflect the political will?	Are the political will well known?	Adapt new uses and functions to existing heritage, rather than the reverse and help users of historic buildings to adjust their expectations of modern living standards	
			Does the project reflect a specific political will?	Identify the political will concerning the area and make sure they are clear for everyone: from the professionals to the people	
			What are the projects expected?	Make sure that the development project and future conservation process are in accordance with political decisions (formulation of the scope statement...)	
		What are their impacts on the area and on the heritage?	What kind of projects are going to be launched?	Verify the global coherence of the project toward the political vision of territory	
			Who is in charge of them?	Make a state-of-the-art of the projects in progress and future, analyze their coherence with the will, with the place and the coherence between them	
			What are the projects expected?	Identify the actors concerned and if they interact to launch projects with visions which are not conflicting	
		Create National Laws concerning heritage protection and conservation	What are the existing documents about heritage?		Determine what is the current vision of heritage at the National Level
			Who has written them?	What kind of documents is it?	Verify that they are adapted to the political, historical and cultural global nowadays contexts of the National level
				What improvements are needed?	Determine if the documents have been written by the qualified concerned actors Contact these actors to analyze their point of view, interact with them and improve the documents if needed
	What is missing or outdated in the documents?		Determine the legal and statutory framework for conserving urban heritage		
	Who should update the documents?		Apply standard building codes with flexible and innovative approaches to ensure appropriate heritage conservation solutions		
				Imply qualified actors with a good knowledge about heritage and Indian culture who will be able to identify the important issues and problems	
	Adaptation of the National Laws to the State Level	What are the existing documents about heritage?		Determine what is the current vision of heritage at the State Level	
		Who has written them?	What kind of documents is it?	Verify that they are adapted to the political, historical and cultural global nowadays contexts of the State level	
			How to adapt the National documents?	Determine if the documents have been written by the qualified concerned actors Contact these actors to analyze their point of view, interact with them and improve the documents if needed	
		What are the great lines to be followed?	Analyze the National framework and see which of the lines correspond to the State territory: keep them or modify them to be efficient		
		What are the specificities of the territory/the area studied?	Conserve built heritage, including original materials, design and construction, architecture		
				Imply qualified actors with a good knowledge about planning, heritage and Indian culture to identify and promote the specificities of the heritage area	
	Strengthen the Heritage Cell at the City Level	What is the role of the existing cell?		Identify its missions and goals	
		Is it efficient?	When was it created?	Determine if the goals are updated	
			Why was it created?	Determine the initial issues and reasons that launched the creation of such a Cell and see if they are topical	
			Who is in this cell?	Check if qualified actors with a good knowledge about planning, heritage and Indian culture are implied	
			Identify the projects launched since the creation and analyze the achievements, results, success or failures in order to improve the role of the cell		
		How can its role be strengthened?		The Heritage Cell must be the first, closest and strongest level to the heritage buildings considered in this project	
		What are the improvements needed?	Make a state of the art of the available informations concerning the area. Produce adapted documents concerning the protection of heritage. List the actors concerned and involve them.		
		How has the area evolved? What are the past, present and future needs?	Determine what has been the evolution of the needs and the physical changes on the area, analyze it and launch a prospective work to identify future changes.		

Policies, Laws and Stakeholders

Imply and coordinate pertinent actors	Who needs to be involved?		Identify who is best placed to be the project leaders
		Who are the actors concerned by heritage conservation?	Establish a listing of adapted qualifications (architect, conservation architect, engineer, associations linked to heritage...) and see who corresponds to it, complete the listing. This can be done at several scales (National, State, local)
		Are some actors missing in the conservation procedures?	If it is the case, identify why they are missing. If they are indispensable, try to implicate them
	What are their roles?		Determine and clear for everyone the roles which each actor will have to follow
		Who is in charge of what during the conservation process?	List the roles of each actor implied to see if each step of the conservation process and production of documents can be effectively supported
		Are the different tasks of each actor clearly identified?	The tasks need to be clearly identified and known by the others actors (production of a document detailing it is possible, even recommended) in order to not repeat some actions or miss some others
		Is an updating of the roles needed?	Check if qualified actors with a good knowledge about planning, heritage, Indian culture and conservation/preservation process are implied. Check if a redistribution of roles is necessary
	How to involve them?		Organize sessions, meetings to inform as much as possible and see what everyone can do
		Are meetings possible?	Encourage the exchange of points of view as to reinforce the appropriation of the project by all the actors
		What is the capacity of the project to get together all the actors?	Identify the many involved actors and integrate them within the project realisation process
	How to have a better governance?		A good governance has to be well-organized, clear and transparent for the professionals as well as for the public
		Is a transparent governance applied?	Ensure that those affected by the conservation projects and decisions know not only the basic facts and figures but also the mechanisms and processes
		How is the quality of co-decision and dialogue (concertation)?	Associate the population to a public decision-making to integrate them: they are also actors
		Is the decision scheme clear and pertinent?	Be sure that the principle of subsidiarity at the decision level (political and technical) is applied: look for the most pertinent level of action
	Manage the administrative procedures	What are the conservation project objectives?	
		Are they clear for the stakeholders?	Ensure that the project has clear, detailed and pertinent objectives and that they are known for all the actors.
What composes the juridical and institutional system?		Know the juridical and institutional framework to respect it	
		Does the project take into consideration the existing rules and regulations?	Make sure that the urban reality of the area is in accordance with the theoretical rules and regulations
		Are these rules and regulations correctly taken into account?	Make sure of the coherence and the feasibility of project preconisation with existing or future urban regulations
Manage economical and financial issues	What are the funding modes for the conservation process?		Provide a financial profile
		Where would the funds come from: the central government, the state government, the local government or the private sector?	The cost of government intervention must not exceed the added social benefits it aims to generate. A cost-benefit analysis of policy options requires that costs and benefits can be identified and quantified
		Up to how much?	Determine the input of each contributor in the project
		Can the project benefit of a local as well as global economical strategy?	Ensure that the integration of the financing mechanisms are in a phase of liberalization
		Is the project in strategic compatibility with the economic development plans?	Ensure that the project benefit from and translate the economics development programs
		Is the project in temporal concordance with the perspectives of economic development?	Encourage a prospective vision of the project to place it in a system of medium and long term stages adapted to the economic development scenario
		Which is the role of public power?	Make sure the general interest of all the users is preserved, through regulation and investment
		Which is the role of private investors?	Encourage the private sector contribution
		What is the scope of public-private partnership in financing the conservation of heritage	Encourage partnership between public and private to take care of the conservation of the heritage process: both sectors are concerned
	What is the viability of the projects?		The projects have to be faithful to the global strategies, to the budget, to the guidelines for the conservation process
	Do the projects answer to the planning strategies?	Ensure that the new development projects implemented respect the heritage present on the area and follow the prospective planning strategies for development	
Manage real estate value	Is the value of the land modified?		Determine how and why the value of a land would be modified
		Are the devices related to alienation well known?	Determine if they are clearly mentioned in planning/land use documents
		Do means to limit the constraints connected with the liberation of the land exist?	Determine why they exist or not; if yes, identify the means and their impacts on the heritage buildings
	Are there land speculation or contentious?		Solve land contentious and guarantee use rights (traditional and modern right)
		What is the knowledge of the major actors of different networks and land ownership system?	Identify what is their knowledge about estate value and clear eventual ambiguities
	Are the non-residents users taken into account in the projects?	If a land use is modified, ensure that even the non-resident are consulted about this change	
Apply penalties and compensation	What are the risks for heritage with the new projects?		Establish limits of acceptable change and adopt an approach calling for minimal intervention
		Does the project respect the existing rules and regulations?	Make sure that the urban reality of the area is in accordance with the theoretical rules and regulations
	What happens in case of destruction, loss or damage?		Prepare guidelines and controls, heritage regulations etc.
		Is there any rule or regulation about it?	Ensure that any voluntary harm is punished and reversed as quickly as possible, or try to come back to the original state as much as possible
		Is it strictly applied?	If there are rules but they are not applied, try to know why and ensure they are more strictly applied in order to protect the heritage buildings

FIELD OF ACTION	OBJECTIVE	TOPIC	ISSUE	STRATEGY
Planning Documents	Develop Records Database as complete as possible	Why a need for data?		Create data that can help counter inaccurate or incomplete government data
		What are the existing data?	Establish a listing of data needed for the conservation process (status, condition, materials, typology...) and/or for future projects (population, traffic, air quality, waste management...) and examine which ones are available	
			Are data missing? Which ones? Why?	Identify the missing data if any, and as much as possible complete the database
		What are the historical facts and significance?		Maintain integrity by understanding significance before any intervention
		(See the grid "Historical and Architectural contexts")	Use a methodology that assesses cultural significance and provides policies to retain and respect it, prior to commencing work	
		What are the heritage buildings in the city? Where are they?		Archive records and documentation
		Who can collect these informations?	Ensure the data will be collected by the qualified concerned actors, with knowledge in planning	
			Where to collect these informations?	Identify the structures which may have the necessary informations
			Who needs to be contacted?	Identify the actors who may have a good knowledge about the area, the heritage buildings and history
		What will these informations be useful for?		Create a databank of heritage properties with details on the status, condition, and typology of properties
		What is the goal?	Enhance the knowledge about the heritage in order to launch adapted conservation process and to make aware people everyone should act to protect these buildings. Enhance the knowledge about the area in order to launch projects that help for its development without compromising the heritage buildings	
			Who needs to know about the records?	The concerned actors (to be identified in the grid "Policies, Laws and Stakeholders") will have to be aware of the data
		How to use these informations to launch projects that respect the area?		With a sufficient knowledge (determine what is sufficient) about the area and the buildings, the impacts of new projects will be more clearly identified, and means would be taken in order to minimize negative impacts and increase positive ones.
		Conduct interviews and surveys	Who will be contacted?	
	Whose opinion is needed?		Interviews can be conducted on professionals actors, but the opinion of the population, resident or non-resident on the area is important to identify the needs but also the perception of heritage	
			How will the informations collected be used?	The actions to be launched will depend on these informations, and will be focused on the lacks which have been learned
	What kind of interviews are needed?		Identify appropriate manners to interview people, depending on who they are	
	Which interview for whom?		Identify the exact kind of persons who will be contacted and list all the possibilities, adapted to the context, of interacting with people in order to make them participate	
			How to conduct interviews?	Check effective and non-effective means to conduct interviews, in India and worldwide, try them on a few people and determine which one is the most appropriate and has the most positive feedback
	How to conduct surveys (real life and web based)?		Check effective and non-effective means to conduct different types of survey, in India and worldwide, try them on a few people and determine which one is the most appropriate and has the most positive feedback	
	Product various maps	What kind of maps are needed?		Map the listed properties in the urban and regional development plans if any, in order to identify a Heritage Zone
		What are the useful informations to know more the area?	Establish the identity, history, authenticity and outstanding value of the place Define the objectives of the project Focus on both project range, projected costs and expected outputs	
			What are the thematics to be analyzed?	Begin with a base map localizing the different heritage buildings and activities on the area, add the land use if possible. Then, future projects planned can be shown on the maps. Maps can also be created concerning the evolution of population and the traffic on the area (pedestrians, public transport, private transport...). The presence of natural elements, or any other elements considered as relevant for the conservation process or a new project will have to be added
		What will it used for?		Create maps and data to understand issues facing city residents Provide useful information to citizens Identify gaps in government data Create insights into policymaking Help create more accountability for elected representatives and bureaucracies Help residents to "think spatially" at a time of rapid urbanization
		Is it possible to make complete 2D and 3D maps of the city and the area?		Update regularly the maps, with the last mapping techniques for increasingly complete and accurate maps
		Who will see these maps?		Produce different kinds of maps, from the professional ones to the communicative ones, depending on who will need to
		How to adapt the maps depending on the persons who it will be shown to?		The different actors and population do not read the same kind of maps: for example the actors with knowledge in planning should see detailed and technical maps, and the population more simple ones (like tourism maps, to show the significant elements of the area) because they do not have the same knowledge

Planning Documents

Planning Documents	Product a Conservation Management Plan for heritage based on preceeding informations	Why the need for a Conservation Management Plan?		Make a decision for an historical place results with the development of a conservation plan
			What is a Conservation Management Plan?	Make a succinct synthesis of the significance of an historic place, its contemporary context, how this significance will be sustained in any new use, alteration, repair or management, and adopt a policy to guide the retention of heritage values through effective interventions
			What will it used for?	Identify policies that strike a balance between use and significance and that provide a useful framework when making decisions about an historic place
			How will it be useful for the projects and the conservation process?	Mitigate the negative effects often derived a lack of knowledge during the launching of a project Provide the policy framework for the sustainable use, maintenance, repair, alteration, and management of the historic place
		What are the long-term plans?		Choose a least-cost strategy which will have the widest and lasting impact on the accomplishment of the Conservation Plan vision, goals and objectives
			Are there any strategies for heritage's future?	Preserve heritage, ensuring its appropriate reuse while maintaining integrity of spatial distribution and functional elements
	Prepare a Planning Guidance Note	What is the approach to built heritage conservation?		Apply appropriate conservation planning methodology
			Is there any planning strategy to conserve heritage?	Promote balanced planning and development in order to ensure the most appropriate allocation of future projects
		What are the characteristics and qualities that have to be maintained?		Define the importance of urban heritage in the socio-economic and cultural profile of the city
			What are the informations known about the heritage buildings?	(See the grid "Historical and Architectural contexts")
			What are the positive values of the area which need to be conserved/promoted?	(See the grid "Historical and Architectural contexts")
			What needs to be improved?	Acknowledge and manage pressures for change, which are constant
		What are the aims of this guidance?		Accompany the Conservation Management Plan by giving more global planning guidelines
	Product communication documents	What informations will these documents contain?		Determine what are the informations which need to be known and by who
			How to use the informations learned in order to transmit them?	Communication documents should use principal and global informations, written as simply as possible in order to be understood by the greatest number
		Who will read these documents?		Create appropriate documents: public will not be able to read technical documents and professionals will need specific informations, for example
			How to make communication documents for stakeholders and professionals?	Check effective and non-effective means to product communication documents and determine which one is the most appropriate and has the most positive feedback
			How to make communication documents for public?	Check effective and non-effective means to product communication documents and determine which one is the most appropriate and has the most positive feedback

FIELD OF ACTION	OBJECTIVE	TOPIC	ISSUE	STRATEGY	
Public awareness and involvement	Answer to the needs of the population	Whose needs are we looking for?		Empower residents by providing them useful, easy-to-understand information that can better highlight citizen needs	
			What is the demography of the area?	Identify the number of residents and non-residents on the area	
			What are the activities of the area?	Determine if there is a coherence between the activities	
			Who is using the area?	Make a list of the type of users on the area	
			How to know what the needs are?		Collect informations about the needs, which will already be a way to public participation
			Where to collect informations?	Identify the structures which may have the necessary informations, otherwise, go on site to collect informations	
			Who can collect informations?	Ensure the data will be collected by the qualified concerned actors, with knowledge in planning	
			How to conduct surveys and interviews?	(See the grid "Planning Documents")	
			How to analyze the needs?		Use different methods to analyze the trends and see what is the most urgent
		What are the elements that occur most often?	Identify the trends, try to know why they exist, what could be the impacts on these trends with a conservation process or new projects		
		Are there demands which seem stronger than others?	Allow for highest standards of equality and equity		
	Make people participate to the projects	Why and how to share about heritage and the projects?		Encourage users active participation to legitimate the project among authorities and have an influence on some recommendations	
			How to make people participate in a country where public participation is not developed yet?	Enable residents, especially the poor, to have a greater voice in planning and city governance concerning their identity	
			How to propose innovative ways of participation?	Introduce diverse spaces and places for consultation never proposed before	
			What kind of activities and animations can be proposed?	Public participation, particularly with young people, can be improved if original ways to share informations are proposed	
			What are people interested in?	These informations will be known only if previous surveys are conducted on people of different age groups in order to know more about their expectations. Also, the actors who will organize the activities must have a good knowledge about Indian culture, in Chennai particularly	
			What will attract their attention?		
		What will make them want to know more about heritage and planning projects?			
	Encourage public initiatives	How to develop public initiatives?		Encourage the creation of groups/associations for the protection of cultural heritage	
			Will people be interested in challenges?	Identify the kind of challenges organized in Universities for example, and try to adapt them to a larger context and to make more people participate	
			How to motivate young people and spread this interest to other generations?	It is usually said that a better behaviour comes from younger generations who sensitize their elders, so most of the activities should be directed to children and students	
			How to promote public initiatives?		When actions succeed, promote them by talking about them and encouraging other actions
			Is it possible to talk about it in local newspapers?	Talking about successful activities and actions in the newspapers is one of the best ways to give them a greater impact, and arouse curiosity in people	
			Is it possible to give awards?	When organizing challenges, give awards that will reward the work done and encourage to continue in this way	
	Increase and improve communication	How to communicate about heritage and future projects?		Communicate cultural significance broadly by different means, like publicity, paper advertisements, social groups, internet, etc	
			What modes of communication are the most efficient?	Identify the favourite Chennaiter way of sharing and getting informations in order to use their potential to communicate about heritage and projects in the city Provide adapted tools for people to express themselves, for example in reaction of some articles found on printed (a page dedicated to people's reactions) or internet newspaper (allowing the comments), on social virtual groups, etc. These tools should be also used by the actors concerned by heritage and projects	
			Which public is to be reached?	Anyone should be able to know what is happening around him, what is changing (or not), it is then a personal choice to try to know more	
Raise education and awareness	How to make people aware of the architectural value of the building?		Encourage the involvement of people by increasing their knowledge and arouse their curiosity		
		Are informations about heritage reserved to architecture students and professionals?	Preserve the building in order to will it to future generations		
		Are there any animations/events about cultural heritage in the city?	Encourage the involvement of people by increasing their knowledge and arouse their curiosity		
		How to make interventions in schools?		Understand that the younger people will be aware of the importance to care for heritage the stonier will be the real care later	
		What can be done in architecture and planning schools?	Develop knowledge and expertise in conservation engineering parallel to modern engineering works Encourage and support professional educational programs to include heritage conservation		
	Is it possible to propose activities in schools to make children aware of heritage protection in a fun way?	Identify known personalities of the city with knowledge in history and heritage who could speak in classes, schools, high schools or Universities, in order to sensitize children and young people Organize adapted activities, conferences and animations around the theme of "heritage in Chennai" to make young people aware that protecting heritage and their identity is important, with interventions of actors with knowledge in history and heritage			

Public awareness and involvement	Create meeting places	What is the demand for meeting places?		See if creating meeting places in an environment which is not used to it could be appreciated
		Is there any demand for meeting places? If yes, who is in demand? (generations, social groups)	These informations will be known only if previous surveys are conducted on people of different age groups in order to know more about their expectations	
			Analyze the meeting places created elsewhere and adapt them the local context	
		What kind of meeting places would be needed?		Use the maps produced and the previous prospective work in order to identify if any land is free (or can be freed) to create meeting places
		Is the creation of meeting places physically possible? What are the existing and innovative kinds of meeting places in the World?	Check effective and non-effective meeting places, in India and worldwide, then determine which one could be the most appropriate and would have the most positive feedback	
	Make place for all generations and social groups	Who are the people we want to attract?		Offer spaces and equipments adapted to specific public (from an ethnical, gender, age, handicap, etc. point of view)
		Who can the area welcome? Who is concerned by heritage conservation?	Identify if anyone can move freely on the area, even persons with reduced mobility (<i>See the grid "Accessibility for everyone"</i>)	
			Everyone in the city at least should be concerned, because the heritage buildings present on the area are an integral part of Chennai's identity and history	
		How to create an welcoming ambiance for all?		Encourage multiple uses of public spaces, assure the support to quiet relationships among the neighbourhoods and avoid socio-spatial segregation
		What are people looking for in this area? What is a welcoming ambiance? How to satisfy the great majority?	This information will be known only if previous surveys are conducted	
			Check effective and non-effective ambiances in public spaces, in India and worldwide, to determine which one would have the most positive feedback	
			Thinking the city around people is not an easy task, because all generations need to be considered. But if the goal is reached, then the area can enhance significantly its popularity	

FIELD OF ACTION	OBJECTIVE	TOPIC	ISSUE	STRATEGY
Culture, Tourism and Economy	Take benefits from history and architecture	What informations have been learned about the heritage buildings?		Use accepted heritage identification and assessment criteria
			(See the grid "Historical and Architectural contexts")	Identify and assess the significance of interiors, fittings, associated furniture and art works of the heritage buildings
			(See the grid "Planning Documents")	Use comparative analysis to establish cultural significance
		How to benefit from these informations?		Measure the extraordinary character of the project site, or of the project itself, and assess the possibilities of valorisation of site and project
		How to develop tourism around the specificities of heritage?	The area combines elements from which it can be taken advantage of: Indo-Saracenic architecture is born in Chennai, 5 heritage buildings are close one to another and on the same line, they are still in good physical state (rehabilitation works are currently going on) and the area is used daily by lots of people. It is the best place for people to know more about a part of Chennai's identity. Consider an eventual reuse of vacant rooms in Victoria Public Hall for tourism purpose?	
	Balance the needs of inhabitants and visitors	Who uses the area?		Identify who is concerned by eventual projects or the conservation process, whose practice of the area could be modified
			How many inhabitants use the area per day?	See the grids "Planning Documents" and "Accessibility for everyone", about the record of these data, needed to understand the use of the area
			How many visitors use the area per day?	
			How many indoors and how many outdoors (national level)?	
			How many foreigners? Where do they come from?	
		How to balance and welcome all the users?		Implement a strong prospective vision to see how could the area evolve in sustainable way, respecting heritage, which would define an effective spatial organization for all
		What is the prospective concerning the number of users of the area?	Identify the present part of residents, non-residents, local tourists and foreigners and try to envisage a future part (medium and long term) in order to understand the evolution of the use of the area Evaluate its impacts and determine a strategy which will follow the trend or try to change it (attract more tourists or not for example)	
		Is it possible to develop tourism in an area already crowded?	With the prospective visions elaborated, determine if developing tourism will have positive or negative impacts on the use of the area, on its economy, etc	
	Develop homogeneity and cultural continuity	Are cultural values of the built environment respected?		Make sure that the new objects connected to the project (urban furniture, design, etc) can be well integrated in an heritage site
			According to the choice of materials, do the conservation process and future projects well integrate the existing built environment?	Be watchful about landscape's transition between the project and the existing built up and urban environment
		Does the project introduce new use conditions of spaces?	If the use of buildings is changing, ensure that the cultural values of built environment are respected	
		Does the project introduce new material objects?	Make sure that the new objects connected to future projects (urban furniture, design, etc) can be well integrated by an heritage site, even where the process is already launched	
How to conserve and entertain the actual local activities?		Make sure that the site conserves an active role in contemporary life and that is improving its heritage resilience		
		Are new uses needed?	If yes, explain why and measure the ability of transformation and conversion of existing features on site in order to avoid heritage devaluation	
		What is the articulation between activities transformation and uses preservation?	The future projects inserted on the area should maintain, as much as possible, a link with original and ancient uses of spaces	
		Does the project valorise existing activities?	Strengthen and improve the existing features on site activities through the future projects	
Promote respectful Tourism	What actions can be made to promote tourism?		Enable the city to attract visitors	
		Who should be attracted: local, national, foreigners?	These informations will be known only if previous surveys are conducted on people of different age groups in order to know more about their expectations. Also, the actors who will organize the activities must have a good knowledge about Indian culture, in Chennai particularly (See the grid "Public awareness and involvement")	
		What could be efficient to attract them?		
		What kind of advertisement could be used?		
		What kind of short term activities/animations could be proposed?		
		What kind of long term activities/animations could be proposed?		
Are the actions viable and sustainable?		Take care about achieving an appropriate balance between environmental sustainability and the conservation of cultural significance		
	Who will finance the actions, activities and advertisements?	Establishing budgets dedicated to action		
	How to develop an innovative, thoughtful and green tourism?	Promote a tourism which be dedicated to people and not only to economy, value the activities already existing, enhance the characteristics of the area, avoid to harm the present environment, take care and protect the heritage Check effective and non-effective green tourism projects, in India and worldwide, to determine what has positive feedbacks		
Make the area an everyday and occasional place	What are the uses of the area?		Measure the capacities of the project to adapt to uses evolutions of the area	
		Who is coming to the area?	These informations will be known only if previous surveys are conducted on people of different age groups in order to know more about their uses of the area	
		What is the purpose of the coming?		
		How long is the coming?		
	What will be the impacts of the conservation process and future projects on the use of the place?		Insert the project in on site activities and maintain, as much as possible, a link with original and ancient uses of spaces	
		Will the projects change or not some habits?	Determine the impacts caused by the conservation process or future projects on the use of the area in order to minimize negative impacts and increase positive ones	
		Will the projects enhance or not the quality of life?		
	Will the projects attract or not more people?			
	Will the projects facilitate or not the use of the place?			

FIELD OF ACTION	OBJECTIVE	TOPIC	ISSUE	STRATEGY
Environment, Landscape and Design	Implement a garbage management	What is the actual management for waste?		Understanding the waste feature and how it impacts the heritage value
			Is there any document concerning it?	Identify what has already been done concerning waste management and analyze the issues to see if they are still valid
			Who is in charge of the waste management?	Determine if the documents have been written by the qualified concerned actors Contact these actors to analyze their point of view, interact with them and improve the documents if needed
			In what consists the management?	List the goals, the needs, the issues (present and prospective) and identify what is done to reach the goals, what is the strategy in order to reduce the number of garbage and to find solutions for the waste
		How to improve it?		Develop integrated waste-management systems and improve recycling practices
			Are there lacks? What kind of lacks?	Establish the lacks and problems, determine their impacts on the area's integrity
			How can the management be updated?	Reduce waste production and impacts (nature of the waste produced, collection, storage) Ensure cleanliness and hygiene of streets and promote facilities adapted to the maintaining capacities of technical services
			How to make people aware they all can act to have less garbage in the streets?	Communication and awareness at an early age are the key to success for a better 'savoir vivre' and a better protection of the environment
		Clean the river and verify the urban drainage system	What is the actual state of the river?	
			What to know about water features?	Document water features before beginning project work. Documentation should include shape, edge and bottom condition and materials, water level, sound and reflective qualities, associated plant and animal life, water quality, natural erosion and flooding, and overall condition
			Are there any documents regulating the quality of water?	Identify what has already been done concerning water management and analyze the issues to see if they are still valid
			Is the quality of the water regularly controlled?	Checking the water quality and taking rapid measures to improve it can help enhance the health conditions on the area
			Who is in charge of the water quality?	Determine if the documents have been written by the qualified concerned actors Contact these actors to analyze their point of view, interact with them and improve the documents if needed
	What is the actual drainage system in the heritage buildings?		Make a drainage feature which protects the historical buildings	
			Is efficient enough? Does it answer to all the needs?	Test interventions to establish appropriate replacement materials, quality of workmanship and methodology Review samples, test products, methods or assemblies
			Does it need to be updated?	Document all interventions that affect the water features, and ensure that the documentation is available to those responsible for future interventions
	How to improve it?		Design water features by a new use in a way that preserves the cultural landscape's heritage value	
			What are the lacks in the management of water quality?	Establish the lacks and problems, determine their impacts on the area's integrity Check if reasonable management of stormwater and wastewater, recycling and storage (use of non-potable water for irrigation, etc.) is being supported
			How can the management be updated?	Comply with the health and safety requirements, in a way which minimizes the impact on heritage value Optimize water supply, sanitation and drainage networks (limit leaks, untimely watering, uncontrolled evaporation, etc.)
			How to make people aware they all can act to have better water quality?	Communication and awareness at an early age are the key to success for a better 'savoir vivre' and a better protection of the environment
	Improve the air quality		What is the actual state of the air?	
			Are there any documents regulating the quality of air?	Identify what has already been done concerning air management and analyze the issues to see if they are still valid
			Is the quality of the air regularly controlled?	Checking the air quality and taking rapid measures to improve it can help enhance the health conditions on the area
			Who is in charge of the air quality?	Determine if the documents have been written by the qualified concerned actors Contact these actors to analyze their point of view, interact with them and improve the documents if needed
		How to improve it?		Find solutions to limit the quantity of pollutants in air to improve the quality of life and provide a healthy environment
			What are the lacks in the management of air quality?	Establish the lacks and problems, determine their impacts on the area's integrity
			How can the management be updated?	Determine what are the major sources of air pollution in order to take action to them directly and reach higher goals for better air quality
			How to make people aware they all can act to have better water quality?	Communication and awareness at an early age are the key to success for a better 'savoir vivre' and a better protection of the environment

Environment,
Landscape and
Design

Lower energy consumption	What is the actual energy consumption on the area?		Understanding the energy consumption on site and how it impacts the conservation of the heritage value	
		How is the energy provided?	Prefer local resources and distributed generation	
		What is the energy consumption depending on the activities?	Reduce energy consumption and needs in public spaces for more energy restraint	
		Are there powercuts? How often?	Determine the impacts of the powercuts on the uses of the area	
		Are the project's energy flows sustainable?	If possible, increase the use of renewable energies in the energy balance	
		How can the energy be better used?	Support global energetic solutions. Limit the environmental impact of future projects from their conception, promote innovation, labels and tools for sustainable planning	
	How to reduce and enhance the use?		The goal is not only to consume less energy, but to consume it better: identify how much energy is needed for every building	
		Is there any waste of energy (during its transport, over-use...)?	Establish the lacks and problems, determine their origins and their impacts on the area's integrity	
		Is it possible to distribute it as efficiently as possible?	Identify the ways by which energy is provided and if there are weaknesses to be strengthen	
		Can the energy consumption of the heritage buildings be improved?	Determine, if possible, ways of reducing the energy consumption of the heritage buildings without harming their physical integrity	
	Promote public transportation	What is the actual choice of public transportation?		Understanding the use of public transportation on the area and how it can help in the conservation of the heritage value
			Which modes can be used?	List the choice of transportation given to the users to come to the area
			Who can use them?	Identify which public is targeted for each public transport and compare to the effective use in order to know if the goals are reached. If it is not the case, establish what should be done in order to reach them
			Are people well aware of what transport they can use?	These informations will be known only if previous surveys are conducted on people of different age groups in order to know more about their uses and expectations
			Are people well aware of where they can take it?	
How can the rides be improved?		Provide efficient public transportation system to reduce the use of personal vehicles		
		Are the rides sufficient and efficient?	These informations will be known only if previous surveys are conducted on people of different age groups in order to know more about their uses and expectations	
		Are there other needs?		
How to promote them?		Communicate about the various options to the car available, which should be affordable even for the less fortunate		
		How to inform people about their choice of transportation mode?	See the grid "Public awareness and involvement" in order to increase and improve communication	
	How to link the modes between them?	If the links are not sufficient, this can be done only with the concertation of different actors of public transportation and planners		
Avoid misuse and desecration	Why protecting the heritage buildings?		Before asking anyone to protect the heritage, they have to know why it should be protected - a previous analysis will be necessary	
		How to make people aware that heritage is a key tool for the area's development?	Communication and awareness are the key to success for a better 'savoir vivre', a better protection of the environment and a better comprehension of what is around us and should be valued as our identity	
		How to make people aware that heritage is a key tool that can give more value to a land?		
		How to make people aware that heritage is a symbol which represents their culture and so should not be destroyed?		
	How to preserve them in a sustainable way?		Give consideration to an environmental and sustainable way of heritage conservation	
		What is sustainability for heritage buildings?	Care must be taken to achieve an appropriate balance between environmental sustainability and the conservation of cultural significance	
	How to maintain the buildings in a good physical state by rehabilitating it if necessary without betraying the original structure?	See the grid "Historical and Architectural contexts"		
	How to maintain the buildings in a good physical state without harming the Environment?	Develop systems, methods, devices or technologies of equivalent or superior effectiveness to those prescribed by regulation to minimize the impact on character-defining elements		
Keep homogeneity between existing and future	What is the actual state of the area?		Understand the past and current environmental characteristics and performance of an historic place	
		What is the link between heritage and environment?	Identify and evaluate character-defining features to assess their inherent environmental potential Take advantage of the inherent durability and adaptability of most historic places	
		How much is the average height of the buildings? Which is the lowest and the highest?	Establish a state of the art of the heights	
	What will be the impacts of the future projects on landscape in the area?		Define what can impact the landscape - minimize as much as possible the negative impacts on the landscape / try to enhance it	
		Will the heritage buildings be hidden by new constructions?	With the state of the art of the existing constructions on the area, try to keep an homogeneity in heights, but also in the materials used if new buildings are constructed in future projects (landscape consideration)	
		Will the new constructions keep a certain homogeneity (materials, structure) with the other nearby buildings?		
	What is the potential of adaptability of the urban metabolism?		Adapt technology or equipment to potential future developments without disturbing the integrity of the neighbourhood	
		What is the adaptability of future projects to seasons and climate?	Propose space occupation types according to climatic and seasonal requirements, by now and potentially in the future	
		What is the project's reversibility level?	Prefer reversible planning, adjustable, that does not constrain the site irretrievably	

Environment,
Landscape and
Design

Environment, Landscape and Design	Plant local vegetation	What is the actual state for vegetation?		Understand the ecological features and how they contribute to the natural and cultural heritage value of the cultural landscape
			What to know about these ecological features?	Document the characteristics and condition of the ecological feature and its relationship with the ecosystem of which it is a part, before beginning project work Combine the best available scientific and traditional knowledge
			How is their physical state?	Understand the natural structure, function and dynamics of the ecological feature and of the ecosystem of which it is part
		What is needed in terms of vegetation on the area?		To attract pedestrians on the area, a sufficient vegetal cover need to be provided to protect them from the sun
			What are the local species?	Make a state of the art of existing species in order to not add invasive species
	Are there any invasive species that should be avoided?			
	Protect urban Biodiversity	What is the urban biodiversity living on site?		Enhance the protection of biological diversity, and maintain essential ecological processes and life-support systems
			What kind of species are present?	Understand the roles of people, animals and insects in producing and maintaining the existing vegetation
			How is their physical state?	Make a state of the art of existing species in order to not add invasive species
			Are there any regulations to protect them if any endangered ones?	Protecting the nesting area of an endangered species if any
		How to protect it from human harm?		Find the appropriate balance between protecting Biodiversity and protecting heritage
			What could be the impacts of new projects on the living biodiversity?	With the knowledge about the species living on the area, identify the impacts of new projects clearly, and take means in order to minimize negative impacts and increase positive ones
			Do some measures need to be taken to protect them/to avoid as much as possible the threat?	Determine the most appropriate solutions to meet environmental objectives Consult experts and officials early in the planning process
	Prepare design guidance for newcomers projects	Why landscape and design strategies for the area?		Identify the actual architectural continuity and determine what is needed in terms of design for future projects
			Are there any rules or regulations concerning the landscape or the design of the area?	Identify and assess the setting and associated landscapes Understand the spatial organization and how it contributes to the heritage value of the cultural landscape Assess the overall condition of the spatial organization early in the planning process for the scope to be based on current conditions
What are the concepts that should be respected concerning the landscape?			Document the spatial organization of the cultural landscape, including the orientation, alignment, size, configuration and interrelationships of its component features, the relationship of features to the overall landscape and its evolution and condition before beginning project work	
What are the concepts that should be respected concerning the urban design?			Incorporate design responses that address the environmental and social impact of climate change, of heritage protection and the global impacts of our use of the landscape	
How can landscape and design affect the ambiance in the area?			Check effective and non-effective ambiances in public spaces due to different landscapes and designs, in India and worldwide, to determine which one would have the most positive feedback	

FIELD OF ACTION	OBJECTIVE	TOPIC	ISSUE	STRATEGY
Accessibility for everyone	Collect informations concerning the traffic on the area	What informations to collect?		Understand the heritage value of the circulation patterns and systems, and how they contribute to the heritage value of the cultural landscape
		What are the informations known?	Make a state of the art of the informations already known about the area (global traffic flow, number of each motorised transportation systems, number of pedestrians, etc)	
			What are the informations which need to be known?	Document the characteristics of circulation systems, such as location, alignment, surface treatment, edge, grade, materials, infrastructure and condition before beginning project work
			What need to be improved?	Find solutions to meet accessibility requirements that are compatible with the built feature
		Where to collect them?		Identify the existing documents and update them if needed
		Are there any documents concerning the regulation of the traffic?	Identify what has already been done concerning traffic in Chennai and on the area and analyze the issues to see if they are still valid	
			Who can collect them?	Ensure the data will be collected by the qualified concerned actors, with knowledge in planning
	Organize the different transportation modes Fluidize the traffic	Are people well informed about their choice for transportation?		Conduct surveys to evaluate the efficiency of the communication concerning the public transportation
		<i>(See the grid "Public awareness and involvement")</i>		<i>(See the grid "Public awareness and involvement")</i>
		What are the transportation modes crossing the area?		Make a complete state-of-the-art about transportation
		<i>(See the part "Collecting informations concerning the traffic on the area")</i>		<i>(See the part "Collecting informations concerning the traffic on the area")</i>
		How heavy is the traffic?		Identify if the capacity of the road is sufficient for its actual and future use (prospective vision)
		How many users per day for each transportation mode are there?	These informations will be known only if previous surveys are conducted on people of different age groups in order to know more about their uses, and if data are collected concerning more technical informations on the road	
			What is the road capacity in the area?	
			Is the road capacity sufficient?	
		What could be improved?		Propose alternatives with concerned actors to improve and if possible minimize the traffic on the area without harming the heritage's integrity
		Is the traffic safe for everyone?		Reorganize the traffic if needed and possible in order to avoid circulation accidents
	What are the safety issues?	If any, determine what are the potential dangers and problems for pedestrians		
		What could be improved?	Propose alternatives with concerned actors to improve and if possible increase the pedestrian flow on the area without harming the heritage's integrity	
	Make a walkable area	What is walkability?		Know more about the concept, if it can be applied to the area, and if yes, how it can be applied
		Where does the concept come from?	Check effective and non-effective walkable areas, in India and worldwide, then determine which one could be the most appropriate and would have the most positive feedback	
			What are its objectives?	
		How to apply this concept?		Develop a pedestrian circulation strategy that encourage pedestrian friendly spaces and integrates with efficient public transport
		How can it be used here?		According to the local context, examine how such a concept can be applied, how it can be accepted by the population and be effectively used
	Will it help improve the quality of life, the safety and the ambiance of the area?		Determine the most appropriate solutions with the help of accessibility and conservation specialists and users, consulted early in the planning process	
	Improve the pedestrians' safety	What are the issues concerning pedestrians?		Identify the problems and issues that pedestrians have to face more particularly
		How many pedestrians cross the area per day?	These informations will be known only if previous surveys are conducted on people of different age groups in order to know more about their uses	
Why do they cross the area?				
What are the safety facilities for them?		Determine if these facilities are sufficient, what is missing, what is working		
Are there any facilities?		These informations will be known only if previous surveys are conducted on people of different age groups in order to know more about their uses and if visits are made on site by qualified actors		
		What are the dangerous points of the area?		
How can their safety be improved?		Encourage the development of pedestrianization by providing sufficient facilities, ease the movement. Develop area in an innovative way which considers pedestrians first		
Are there any planning documents concerning pedestrians?	Identify what has already been done concerning the crossing and the safety of pedestrians and analyze the issues to see if they are still valid			
	What projects can be proposed to enhance their safety?	Figure out alternative projects which can at the same time enhance pedestrian safety, not interfere in motorised vehicles flow, and increase the significance of the heritage area		
Make an area practised even by for persons with reduced mobility (differently abled persons, pregnant women, old people...)	What is the accessibility for them today?		Determine if persons with reduced mobility can practise all the area without difficulty	
	It is possible for differently abled persons on the area?	These informations will be known only if previous surveys are conducted on people of different age groups in order to know more about their uses and if visits are made on site by qualified actors		
		What are the dangerous or impracticable points?		
	How can it be improved?		Provide people of all ages, interests and abilities with access to historic places: highly desirable and a frequently mandated social goal	
	Are there any planning documents concerning differently abled persons?		Identify what has already been done concerning the crossing and the safety of people with reduced mobility and analyze the issues to see if they are still valid	
	Can projects be proposed to ease their accessibility?		Enhance the use and appreciation of an historic place for everyone	

8 WHAT FUTURE(S) FOR THE CHENNAITE IMPERIAL HERITAGE?

In this non exhaustive part will be presented some ideas for hoped effective awareness, care, protection and development of the Indo-Saracenic significant heritage of Chennai.

8.1 5 POINTS TO BE CONSIDERED FOR A BETTER CONSIDERATION OF HERITAGE¹²¹

- **Enhance the knowledge on heritage**

Take the necessary time to conduct analysis, historical research, heritage recording, typologies, anthropological approaches, the meanings and ways in which people live. It requires expertise, time, resources.

- **Include since the start of the projects local population**

The political environment must allow it, the posture of professionals and heritage experts involved must be changed: the public must have access to the information linked to new projects. There must be mixed project teams, especially in developing countries (North-South pairs for example).

- **Find protection modes for heritage adapted to local realities**

The people are the best guarantors of heritage protection. Heritage must be flexible : ensure that it adapts to new ways of life. We must juggle with the authenticity and the development of heritage.

- **Develop mechanisms for the population continues to live in the heritage area**

Struggle against gentrification.

- **Make the residents rediscover their heritage, and train, restore, reinterpret**

What we need is not a fixed vision, but a prospective one. The baton must be then passed to the coming generations.

¹²¹ SAVOUREY Cathy, 12^e Rencontres de la coopération internationale en Région Centre, Quand les cultures dialoguent, Vinci de Tours, 17 novembre 2012.

8.2 A CONSERVATION MANAGEMENT PLAN¹²²

8.2.1 *What is a Conservation Management Plan?*

A Conservation Management Plan is a document used to reference, detail and protect heritage. It has various goals and helps determining what part of heritage should be conserved or not, and under what criteria. It is precised also who chooses the criteria and how they are built. This kind of Plan aims to deal with the present heritage, to determine its future and safeguard what has a strong significance.

An integrated approach is then needed, because various thematics are involved, which are interacting with each other: history, culture, economy, environment, etc.

A management system will allow an appropriate record of database about heritage, safeguard the cultural heritage for the next generations, and develop attractive and competitive social, cultural and economical centres. A review is done about the existing framework for Conservation and Integrated Heritage Management to identify the working and non-working policies. Then, if not already done, a listing of grades can be implemented, depending on the types of buildings found on the given area.

This Conservation Management Plan aims to coordinate many dimensions of urban life of the urban area, which means integrating heritage in a changing environment. This is also a mean to list, involve and associate the actors concerned by heritage and culture, a way to develop policies and strategic planning documents, and an opportunity to raise public participation. Another goal is to determine the agencies involved with planning and implementation of heritage conservation and rehabilitation works, as well as continuing maintenance and management of heritage resources in order to make them coordinate.

It will also identify if there is an ineffective conservation framework and lack of integration with the development planning process, why is it so, and what should be done to improve it.

This Plan is not static, it needs to be updated frequently, each time something new appears or each time something new needs to be done.

8.2.2 *In what case is it used?*

It is used by cities which have a strong historical past, which let heritage that can be seen in the city, in a good physical state or not. It is a way to develop the knowledge in a place where cultural heritage has been neglected until now, but there

¹²² CDP-Delhi, Chapter - 7: Conservation & Heritage Management, JnNURM, IL&FS ECOSMART, Dept. of Urban Development, Govt. of Delhi (2006-2007?)

is a political will to take advantage of it and open new development opportunities for the city.

8.2.3 *What does it contain?*

The structure of a Conservation Management Plan, inspired by *Cultural Heritage Integrated Management Plans, URBACT II, European Union (2010)*¹²³ could be the following one:

Introduction (goals and purpose of this Plan)

Identifying issues (present state of the historic area and cultural heritage that can be found)

About the historic area

- Description of the area
- Statement of significance
- Problems
- Existing policies, laws and strategies.

About the stakeholders and procedures

- List of the relevant actors concerned by projects linked to heritage
- Determining the roles
- Existing procedures to safeguard heritage

Appraisal

Overall vision and general objectives

- Short, mid and long term objectives
- Strategies to reach these objectives

Fields of action, strategies

- Identifying the relevant topics and issues
- For each field of action:

- Objectives*

- Topics*

- Issues*

- Strategies*

- Stakeholders to be involved

Organisational and operational structures and procedures

- Objectives and strategy
- Development and adaptation of organisational and operational structures and procedures

¹²³ SCHEFFLER Nils, Lead Expert of the HerO Network, in cooperation with RIPP Matthias and BUHLER Barbara, HerO Lead Partner, Cultural Heritage Integrated Management Plans - Thematic Report (4), HerO, URBACT II, European Union (2010).

Implementation and Monitoring

Action Plan/Implementation Plan (sum up what has been said before)

Continuous monitoring and review (what needs to be done, what is effectively done, why and why not)

Or the structure of a Conservation Management Plan could be more descriptive like this one, inspired by *National Library of Australia Conservation Management Plan (2012)*¹²⁴:

Introduction

Background and Purpose

Authorship

Acknowledgements

Description, History and Other Evidence

Location and Boundaries

Brief Description and Condition of the Place

History of the Origins and Development of the National Library of Australia

Design and Aesthetic Context and Character

Evidence of Scientific Value

Evidence of Social Value

Analysis of Evidence

Analysis of Historic Value

Analysis of Design and Aesthetic Value

Analysis of Scientific Value

Analysis of Social Value

Statement of Significance

Statement of Significance

Heritage Values and Attributes

Development of Policy—Opportunities and Constraints

Implications Arising from Significance

Levels of Sensitivity to Change

Legislative Requirements

Stakeholders

Management Context, Requirements and Aspirations

Analysis of Condition and Integrity

Issues relating to the Broader Setting

¹²⁴ Dr PEARSON Michael, MARSHALL Duncan, National Library of Australia Conservation Management Plan, a management plan complying with s.341S(1) of the EPBC Act 1999, prepared for the National Library of Australia, Exposure Draft (2012)

Conservation Policy and Implementation Strategies

Objective

Definitions

Conservation Management Policy and Implementation Strategies

Implementation Plan

In both the cases, the important goals of the Plan can be identified.

8.2.4 How can it be applied to the case study?

It can be applied to the case study, as for the moment nothing clear at the city level has been implemented for cultural heritage. Also, the surroundings of Central Station contain a potential not yet exploited, with five buildings presenting the Indo-Saracenic architecture, born in the Chennai city, in a area long of 1 km. Producing such a document would permit to know more about this buildings, to identify the stakeholders and involve them, to implement conservation policies and determine prospective strategies for the area, as well as raising people's awareness about the protection of heritage.

8.3 A CONCEPT: THE CAR-FREE AREA

8.3.1 Getting into the accessibility problem

Planning documents have then to be produced as an indispensable framework, with accessibility as a target, as the functioning of the area is one of its principal problems: there is no safety for pedestrians while they are numerous on the area, and the vehicules move in the main crossroad with difficulty. Soft modes of transportation (by foot, cycle and variations) interfere in the motorized-vehicles' movements, and conversely. So something needs to be proposed, even more because of the arrival of the Metro Rail which will bring more people there, to facilitate the movements of everyone.

It seems that what happens nowadays when an Indian city is facing traffic problem, endangering pedestrians, it proposes to change the pedestrian movement, using skywalks and subways. But as the traffic congestion is coming from the motorised vehicles, why not acting at this level and prioritize the people walking or using bicycles, two soft modes which do not harm the environment?

This is the bias taken in this part, in order to change the minds and see from short to long term. Because if skywalks and subways resolve the safety problems for a moment, they do not find a solution to the rapidly growing problem of congestion. That is why we should find solutions now to reduce the use of cars, and enhance the

use of public transportation, which means less individual motorized vehicles, and the use of non-motorized modes.

For this to be done, effective solutions need to be proposed which have already been proved elsewhere and can be adapted to the Chennai context, at the same time rooted in its traditions and opened to innovation.

8.3.2 Presentation of the concept

The more you leave place for cars, the more there will be cars. This is one of the foundations that led the concept of pedestrianization. In a society where cars are becoming an indispensable tool for everyday life, what place is given to pedestrians and users of non-motorised vehicles? Which means, what is the place of people in a world of machines?

Nowadays people believe that motorised vehicles have priority rights to move compared to 'eco-friendly' transportation modes (walking, cycling and variations); the roads are designed for cars and not for pedestrians. In a developing context, moving by car seems to be a must-do, motorized vehicles become more important than the non-motorized ones. Pedestrians and cyclists can even be forbidden to use certain areas because they are considered as interfering in the traffic.

That is why transportation planning practices are often unintentionally targeting motorized travel. But what should not be forgotten is that a city is a social structure and not only a physical structure. The physical structure of the city depends on the social demand, it is not the physical structure that should determine the social urban behaviour.¹²⁵

In India, the roads are used by various transportation modes: cars, buses, three-wheelers, scooters and motorcycles, bicycles, rickshaws and animal- and human-driven carts which usually create congestion, because we do not know anymore what is the place of each. The demands of more vulnerable users are neglected at political levels, when they should be the first priority.

That is why the "car-free" concept should be considered seriously in India, as population is still growing, and so the traffic. But soon not enough space will be provided to receive the motorised vehicles, so innovative and efficient new ways of moving have to be found now. The needs of non-motorized road users have to be considered and implemented in the transport planning process, in order to reorganize the traffic for it to be less crowded, and thus decrease the number of road crashes.

Indeed, *"during the calendar year 2010, there were close to 5 lakh road accidents in India, which resulted in more than 1.3 lakh deaths and inflicted injuries on 5.2 lakhs persons. These numbers translate into one road accident every minute,*

¹²⁵ NAVDEEP Asija, *Pedestrianisation need of the hour: a case study of Fazilka town*, Halcrow Consulting India Limited (?)

*and one road accident death every 4 minutes". In 2010, 53.1% of road accident victims were in the age group of 25 to 65 years, with pedestrians, bicyclists and two-wheelers, who comprise the most unprotected road users, accounting for around 40% of all fatalities.*¹²⁶

A higher quality of life can be provided by communities that promote non-motorised vehicle-friendly, they are places where people can walk freely and safely, ride bicycles, without being afraid of motorised vehicles. Walking is not only a transportation mode, it is also useful for fitness, and is an activity that people can do with friends and families. These kinds of communities are seen as the one having the best quality of life and safety.¹²⁷

To select an eventual pedestrian street or area, reconnaissance surveys and interviews have to be conducted with the people. The final selection will have to take into account *"the safety of the pedestrians, in particular women who have to walk during late night hours, the most accessible destination for walking, the size of the street to take care of the latent demand in pedestrian trips in future, minimum disturbance to the services like hospital, places of worships and educational institutes, land use pattern of the pedestrian street and nearest distance from residential zones of the city."*¹²⁸

Here are presented some benefits that can bring the "car-free" concept, found in *Pedestrianisation need of the hour: a case study of Fazilka town* (NAVDEEP Asija):

- **Harmony amongst the People-Walking City**

Pedestrian streets promote and enhance more pedestrians and cycle trips within the city, which are the best modes of sustainable transportation. Urban life extends back to some more than thousands of years, to this long period of time when all cities were basically dependent on walking for their circulation needs.

- **Economy of the City**

Car-free areas help improve the economy: special spaces for the vendors can be provided on the pedestrian area to showcase and sell their products. Their non polluting transportation modes of selling their products helping to create eco-friendly zone and low selling cost of products. Further, this area can act as a direct link between the manufacturer and buyer for the promotion of local handicraft products.

- **Environment and Air Pollution**

The aim is discourage the use of motorised vehicles and promote the concept of "car-free area". This can permit to improve the air quality and reduce air pollution in the area chosen, as no more motorised vehicles will cross the place.

¹²⁶ UPADHYAY A. K., *Road accidents in India 2010*, Government of India, Ministry of Road Transport and Highways, Transport Research Wing, New Delhi (2011)

¹²⁷ <http://news.oneindia.in/2008/12/01/fazilka-car-free-city-concept-1228116600.html>

¹²⁸ NAVDEEP Asija, *Pedestrianisation need of the hour: a case study of Fazilka town*, Halcrow Consulting India Limited (?)

- **Tourism**

Pedestrian streets can help enhance the tourism potential of the city, particularly if the cultural significance of heritage objects can be seen directly on the area. The major places of tourists attraction of the city can be then enlighten.

- **Culture and Heritage Promotion**

Pedestrian street is acting as a promotional platform to create awareness of culture and heritage of the city particularly amongst the youth. The people can visit car-free areas with family and with friends. It can help to create self discipline amongst the citizens, reflecting better law and order in the city.

Car-free areas are already recognized as one of the most sustainable solutions in urban context, improving the respect of law and order, quality of air pollution, developing economy and tourism, maintaining heritage and culture.

Still quantitative and qualitative studies (reduction in road crashes in urban, crime rate graph, improvement in air pollution quality, ...) need to be conducted to increase the knowledge about the effective benefits of such areas, to motivate more and more cities to implement this concept. Before this, some other cities need to be pioneers and innovative for the concept to improve and spread.



Figure 13: Shanghai, China
(Source: masterfile.com)



Figure 15: Chongqing, China
(Source: molon.de)



Figure 14: Fazilka, India
(Source: navdeepasija.blogspot.com)



Figure 16: Shun Chi Sun City, China
(Source: edsaplan.com)

If the concept is innovative, it is already used in cities spread around the Globe, including Asia, and even Fazilka, old small town in Punjab of more than 160 years, near the India-Pakistan border, counting about 70,000 inhabitants.

It means innovation does not rhyme with impossible.

CONCLUSION

The conservation of heritage is still often today a neglected field in town and country planning. However, for cities presenting cultural, historical and/or architectural significant values, heritage can be the starting point to development strategies. It represents the identity of a place which can be highlighted: it makes this place unique.

For heritage to be used as a useful development tool, policies and frameworks that ensure its protection are not an option. Indeed, planning can not be useful without the help of adapted policies, charts and planning documents. As the State Governments in India run with the guidelines of the National Government, protection laws for historic buildings, even if younger than monuments, should be adopted at the National level first.

Heritage is threaten as soon as it is no more useful, but still it has a great value for the identity of the population. With the involvement of National and State Governments and the existence of such laws, the planners work would be easier and more effective. The considering of heritage buildings may be implemented in planning documents like landuse planning or management plans. Built heritage can not be considered separately from an urban area, because it is part of it and its development.

The analysis grid proposed in this project has been made for decision-makers, planners and other politics. It aims to raise relevant questions concerning the heritage surrounding Central Station in Chennai and future projects that may be implemented in the area. Because may it be a conservation process or development projects, clear and known strategies have to be followed. Only integrative and comprehensive management plans can help to understand and facilitate the interaction of different thematics.

All the recommendations in the grid can not be followed, but at least the ones judged the most important should be implemented. The bias in this research work is that policies, public participation and planning documents have to be considered seriously.

Heritage protection is the people's duty, so they have to be informed about the rich history surrounding them. What is often forgotten is that the decision-makers are also part of the people. So it is important for them to feel concerned not only as a professional, but also as a person living in the city. It means that interaction between people and professionals can only be beneficial for both sides. It has to be in original and attractive ways, in order to draw and keep attention.

It seems that the question of heritage is just being asked in Chennai, as the Heritage Committee was created not long ago, and a serious listing began only this year. The change is verified, but may be a little bit long, by the time everyone accepts it.

In addition, what is usually believed is that the change comes from the younger ones, that is why interventions in schools, high schools, colleges... have been proposed in the grid in order to sensitize young people, future of any Nation. They need to understand their rich heritage, what is their legacy, for them to feel concerned and know where they are coming from.

The hope is then that they will not only preserve heritage buildings, but also all their environment, because it is up to the people and not only to the political will to choose to live in a better environment, cleaner and healthier. There are not small gestures. Everything counts and will find its way.

The idea is not that because heritage is preserved in Occident, it should be preserved in the same way in developing countries. The idea is that developing countries usually have a very rich cultural heritage, and they should not lose it during their developing process, in order to become more modern, but keep their identity and originality.

<<

By destroying what is old, you also destroy the memory of our past, the legacy of our ancestors. Do you not have respect for those who have lived and died before us? There is no future for those who can not see anything other than the future and close their eyes to the past.

>>¹²⁹

¹²⁹ MIYAZAKI Gorō, La colline aux coquelicots, Japan: Ghibli studios (2011) 91 min.

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Analysis grid for the Integration of Heritage in a moving context

Case Study of Chennai Central Station and its surroundings, India

Abstract : In a globalizing context, the ways of living and thinking tend to homogenize. Traditions are being lost in favor of a global modernism. What happens in some cities like Chennai, situated in a developing country (India), is that cultural heritage is totally neglected. However, the city has buildings with a rich and original architecture, the Indo-Saracenic one, which was born in the city itself. Chennai Central Station is one of the best representatives, and is the landmark of the city. In its surroundings, other buildings present the same architectural characteristics. All around, new projects are going on, like a future Chennai Metro Rail station. The bias of this project is to propose an analysis grid destined to decision-makers that proposes issues and strategies in order to integrate Central Station and the other heritage buildings in a moving and developing environment. The final aim is conciliate past, present, and future.

Keywords : heritage, analysis grid, India, Indo-Saracenic architecture, history, culture, tourism, public, policy, Sustainable Development...