Conservation and Management Plan of Historical Buildings for a Monitoring System of Alegre and Concepcion Hills Area, part of the World Heritage Site

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Abstract

This is a plan and manage for the Tangible Heritage, about Preservation, Protection and Give Value, a type of tools to direct the interventions in Historic Buildings, through a Conservation and Management Plan of Alegre and Concepcion Hill’s, part of the World Heritage Site nominated for UNESCO, defining and establishing Protection, Intervention and Monitoring Criteria for Historical Buildings classified as a National Monuments.

In accordance with the Valparaiso Nomination like a World Heritage Site (2003), it is a essential requirement to have a constant Monitoring Plan about the basic conditions of the conservation status of the Historical Buildings located in this Site. In this sense, the Valparaiso City Hall, through its Heritage Management Office, has the responsibility to conduct a Monitoring System can be monitored through the use and review of the Recods to Value, Assessment and Intervention provided in this research and study, will define the sustainability of the Conservation and Management of the Tangible Heritage.

Figure 1. View of Concepcion Hill.
Introduction

The World Heritage Committee of the UNESCO accepted in July 2003 the inscription of a Sector of the Historical Area of the City-Port of Valparaíso in the World Heritage List, in the category of Cultural Landscape.

The project “Conservation and Management Plan of Historical Buildings for a Monitoring System of Alegre and Concepcion Hills Area, part of the World Heritage Site”, contemplates a formulation of an integral vision and sustainable in the future, in all the city. This vision requires the preservation of history, urban culture and architectonic development of the Historical Area of Valparaíso, as a sustainable model to replicate values of the city, by generating a new strategy for sustainable development of the potential of the historic city.

The project is presented below, contains a research and methodological proposal for the Management and Monitoring of Alegre and Concepcion Hills, two of the hills with more sustainable development of the tangible heritage of the city, presenting themselves, the major issues regarding the criteria for intervention.

Figure 2. View of Alegre Hill.

Background

The Object

- The Situation

The property being nominated World Heritage Site, is located in the city of Valparaíso which, in turn, is located in the Municipality (local government) of the same name, and is the capital city of the Province of Valparaíso, of the 5th Region of Valparaíso.

This is a city developed on a natural amphitheater and displaying a unique harmony regarding the adaptation and integration of its man-built forms. These constructions, erected in terrains reclaimed from the sea, of homogeneous heights and connected between each other, are examples of the coexistence of academic and vernacular architectures. It is a city of houses hanging from the hills, of a harsh topography which creates labyrinths totally assumed by its inhabitants; a city lacking a unique large center but having many small, heterogeneous and superimposed centers.
Figure 3. Official map of the inscription of the World Heritage Site.

This is a city with front and back, of well defined horizons. A city that was born from the sea, where men have built their houses entwined with complex spaces and circulation areas hard to overcome for those who are unfamiliar with its topography. However, this is a landscape kindly resolved, since it is possible to tour and discover all its corners and viewing points, whether simply walking or using the elevators, that unique local means of transportation, or a combination of both.

This is a city of a slow yet steady growth, which until this very day maintains the cultural heterogeneity stemming from its foundation. Its is a dynamic, diverse and cosmopolitan society, whose origins are still perceptible in its inhabitants, buildings, customs, social and commercial activities. It is a city where in the coexistence of different groups it is possible to appreciate a distinct and autonomous character, as well as a strong local and regional identity.

Each and every section of Valparaíso, and particularly the area being nominated, embody a large number of the singularities that make this city exceptional. In fact, the nominated property harmoniously reflects the most outstanding variables of its urban layout, plus the interaction and unity between the hills and the plain and the richness of its public and intermediate spaces, where private and public life juxtapose, permitting a unique way of living.
The nominated property corresponds to a section of a city of a seaside-seaport character, whose plan and architecture are the answer to a very peculiar geographic and topographic milieu. In this particular case, the geographical conditions were so strong, that the adaptation of man-built forms to the environment produced an entirely original and unique result.

This result was possible thanks to the dialogue between its inhabitants, of diverse origins and cultures, and their contribution to the city over the course of time. They not only built a city in a difficult milieu, but also transformed this difficulty into a virtue. They discovered all the potential the natural environmental conditions had to offer, took maximum advantage of them and created a city in which man, nature and man-built forms are mutually enriched. This city, propitious for socialization and landscape appreciation, can be fully enjoyed to this day.

The natural conditions for the development of this city-port were determined by the following factors: a) the bay which, due the nearby hills, formed a natural amphitheater; b) a narrow plain standing between the coastline and the foothills; c) the hills themselves, which are lined by a network of sea-oriented ravines and, d) the plateaus at uneven heights, the ever changing light and the prevailing winds. All these conditions occur within the framework of the vastness of the Pacific Ocean and the Andes Cordillera, a range of mountains which is visible from the amphitheater.

The city was born in the 16th century lacking the formal foundation, planned layout, organization, zoning and geometrical regularity of the inner cities, which had been established according to the parameters fixed by the Spanish Colony for the New World cities. Its origins were marked by precariousness and its two first centuries of existence by the modesty of its condition and the adversity brought about by earthquakes, fires and the looting of pirates.

The growth of Valparaíso follows two patterns: a radial growth around its original nucleus (La Matriz Church) and the persistent enlargement towards the northeast. Its development and shape, explained by the natural and historical conditions of the city, reached its definite configuration in the second half of the 19th century with the densification of the hills bordering its original nucleus, the densification of the El Almendral quarter, and with people’s settlement in the northern hills.

Figure 4. Historical photo of Echaurren Square.
This urban development, marked from the geographical point of view by the scarcity of land, translated into two processes. One was the constant struggle to enlarge the plain’s surface, reclaiming land from the sea by means of fillings and escarpments. This process quadrupled the port area’s plain surface between 1832 and 1930. The other was the hills’ population and densification process which, due to the hills’ abruptness, resulted in a very unique layout and architecture.

From the historical point of view, the hallmark of the city stems from the preeminence it attained during the 19th century as the main seaport of the American South Pacific. After the independence of the country, and in a context of modernization and worldwide integration, the seaport would turn into one of the more important, if not the most important, in the inter-oceanic navigation routes, until the opening of the Panama Canal.

During the 19th century, Valparaíso was the point of contact with the rest of the world of a country confined in the farthest southern end of America, isolated by the Antarctica ice, the northern deserts and the Andes Cordillera. The city became an enterprising and creative nucleus which welcomed most of the country’s foreign immigration. This fact was paramount not only for the economic development of the country, but also regarding crucial advances in the sphere of fundamental freedoms, particularly religious freedom.

Due to its preeminence, economic capability and the entrepreneurial spirit of its inhabitants, this city would become fully inserted in the industrial age. It would emulate the European fashion trends and would benefit from the technological advances that contributed to the quality of life in cities. Because of the peculiarities of the city, these schemes would be uniquely and originally applied, attaining an integral harmony between nature and constructed forms.

This creativity and entrepreneurial spirit is the result of the confluence in the seaport of inhabitants of the most varied origins and social conditions, who shared their skills, knowledge and mentalities, thus turning cultural diversity, pluralism and heterogeneity into their greatest richness. Valparaíso enabled its inhabitants to live not only in an atmosphere of tolerance and happy coexistence, but of creative dialogue as well. These features were also a consequence of the blows of history on the city and of the capacity it developed to endure and deal with adverse conditions, finding a source of dynamism in its own diversity.

These factors constituted the seaport’s essential wealth, a richness which transcended its period of prosperity and is part of the present identity of this city, an identity which only art—cinema, literature and fine arts—has been able to capture faithfully. Valparaíso is today a city of multiple facets, of differences, of diversity, all of which are revealed by both its tangible and intangible heritage.

From the urban viewpoint, the result of this inter-cultural dialogue and of the challenge of adaptation to the environment is an original Latin American city, shaped during the second half of the 19th century according to quite Central European parameters. The originality stems from the creative adaptation to a geographic environment imposing strict conditions, which makes this property unique with regard to the rest of the Latin American cities of nineteenth-century imprint.
The city’s heterogeneity and diversity can be appreciated in the strong differences existing between its quarters and hills, between its architectural typologies and between its peculiar public areas. This heterogeneity is balanced by the integration that takes place in the city, both between its inhabitants and between people and the landscape. The configuration of the city, the narrowness of its streets, the irregularity of its thoroughfares and the dialogue between the hills and the plain make its inhabitants to be always watching the different facets of the city, their closest neighbors, those who live in the plain or on the hills, and those in the other end of the bay. This spatial integration fosters not only the esteem of its inhabitants for their city, but the contact between neighbors, the daily dialogue, meeting and socialization.

The universal values of the city are so much part of the whole, that they cannot be ascribed to a specific section or quarter. In fact, the multiplicity of urban and architectural solutions, as well as the multifaceted character of the city, have created a city comprising several quarters, each one having a special character. The ways in which these different areas relate, particularly the plain and the hills, are also valuable in themselves. On the other hand, the city of Valparaíso does not have an historic center in the traditional sense of the word, but in a dynamic process, developed itself generating several centers.

The property being nominated for inscription in the World Heritage List is a section of the Historic Area of Valparaíso, where it is possible to distinguish several quarters that illustrate the multiplicity and creativity of the urban and architectural solutions adopted within the framework of that challenge of adaptation to the milieu, in a city where the whole is more than the sum of its parts.

Figure 5. Map of the World Heritage Site and Historical Conservation Area of Valparaíso.
The Location

The city’s authenticity stems from its essential characteristic: the harmonious and varied adaptation of man-made forms, urban layout and communication network to an exceptionally strong geographical milieu. Moreover, it comes from the good use made by its inhabitants of the opportunities offered by such peculiarity from the point of view of the relationship with the landscape and both the social and spatial integration.

Valparaíso has not been "designed" or "built" overnight. It has had a patient, slow and well defined growth, in such a way that each individual act has contributed to build the Cultural Heritage currently recognizable in the city. The natural amphitheater sailors saw in nearing the abrupt topography in the 16th century has remained the same till this very day. Nowadays, as we approach the city, the constructions built on the hills only stress the feeling that the houses "hang" from the slopes and ravines.

The inhabitants of Valparaíso have retained in the course of time a special cosmopolitan character which has outlived the different historical stages they have gone through (which have included earthquakes, fires, several looting episodes, etc.). This has served to amalgamate and consolidate the relationship between the people and their city, as well as to reinforce the seaport inhabitant’s character and his identity at a regional and national level, thus giving birth to an independent cultural sphere.

There are several identifiable groups of inhabitants living within the Nominated Area. These groups have different characteristics according to their economic, cultural and social standing, a steady fact which has enriched neighborhood life. There are different communities and quarters displaying a rather intense life and showing an identity of their own. In the plain, the most representative quarters of the idea we are trying to convey are those of Echaurren Square and Serrano Street, of Sotomayor Square and Justicia Square, and that of Prat Street. In the hills, the Alegre Hill and Concepción Hill quarter, and the La Matriz Church quarter, that sort of anteroom to the hills. Due to their small size and arrangement, these are clearly delimited and differentiated quarters that, without being closed units, are strongly articulated so as to enable their inhabitants to move easily from one to the other.

Figure 6. Map of the Typical Zones.
This multiplicity of minor nuclei, instead of a centralized nucleus, bestow a magical atmosphere upon the city, where the local transportation areas, like the minor roads, pedestrian paths, stairways, promenades and elevators, constitute a means of communication which is unique in the world in this context.

Among the elements which favor this identity at a neighborhood level are Valparaíso’s urban access doors, of a restricted nature, which mark the entrance from one neighborhood to the other and which are in some cases differentiated by the topography and, in other cases, by the architecture. The ring roads, whose fast lanes neither destroy the communities nor the landscape, also favor this identity.

In the neighborhoods it is possible to appreciate an attempt to control the nature of the local surroundings through the following measures: the homogenization in the height of buildings, most of them of no more than three to four levels; the existence in the plain of parallel roads of alternate single sense, crossed by low profile thoroughfares linking the hills with the plain; the relationship with its shoreline (Prat Pier) and the reservation of a belt of public sites in order to recover the coastline; the knots of activity at the roads’ meeting points; the network of pedestrian paths and vehicle roads which crisscross creating quite small public squares; the intermediate spaces; the local looping thoroughfares –narrow and of restricted vehicle traffic and, finally, the back, tranquil thoroughfares –Apolo Alleyway, El Peral Rise, Castillo Rise, etc.-, with high spots only accessible on foot – promenades-viewing points-, inserted between houses at different levels that display their roofs of fifth façade and form terraces with communitarian gardens.

The unique nature of its buildings can be thoroughly appreciated in Alegre Hill and Concepción Hill, as well as in La Matriz quarter. The majority of these constructions are not isolated but connected between each other forming complexes with their own share of inner social events. Most representative of these ensembles is the social and family use of gardens arranged in the sunny terrace roofs -allowing spectacular views and contributing to the phenomenon of the fifth façade-, the terraced hillside, the garden fence, the use of color and the coexistence of different stylistic elements of both academic and vernacular architecture, which create a spatial and architectural harmonic whole due to their location, integration and adaptation.

All this extensive range of values comprising the shape of the urban layout – which permits a differentiated reading of the foothill and plain-, the different quality of public areas conditioned by the topography, a unique means of transportation –the elevators-, and the cosmopolitan, varied and integrated architecture, turn Valparaíso into a special place where the architectural heritage, landscaping heritage and intangible heritage mutually reinforce each other and constitute a unitary whole.
The World Heritage Committee of the UNESCO accepted in July 2003 the inscription of a Section of the Historical Area of the City in the World Heritage List, in the category of Cultural Landscape, in Category CII Cultural Landscape.

Valparaíso is considered by UNESCO, like an exceptional testimony of the first stage of happened development at the end of century XIX, when it was the principal merchant port of the routes of the South Pacific, in the coasts of South America.
The World Heritage Site, registers in the Historical Area of Valparaíso or “Typical Zone” which corresponds to a sector of 42 hectares, that includes the sectors of:

**Sector 1 : Alegre and Concepcion Hills**

**Sector 2: Anibal Pinto Square – Almirante Montt Street**

**Sector 3: Prat – Esmeralda – Ross Streets**

**Sector 4: Sotomayor – Justicia Squares**

**Sector 5: Cordillera Hill**

**Sector 6: Echaurren Square – Serrano Street**

**Sector 7: La Matriz Church** (original center of the city) – **Santo Domingo Hill**

**Sector 8: Marquez Ravine**

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Figure 9. Map of the different Typical Zones.

Figure 10. View of Concepcion Hill.
The Surroundings

The Layout:

Two great schemes can be discerned within this city’s irregular layout. One is the road network running along the foothills and the plain, with longitudinal thoroughfares cutting through the flat terrain in parallel to the coastline. Every now and then, these thoroughfares give way to a series of squares connecting the entire plain. The other consists of a series of narrower streets and alleyways transversely intersecting the longitudinal thoroughfares and crisscrossing the whole plain in a sea-hill direction. The flow of these streets merges with that of some larger roads which have been built in the ravines between the hills.

In the plain, the scarcity of space determined two types of blocks. One is the longitudinal, rectangular and markedly elongated block, with buildings having frontage on two streets, or with header-buildings, on one end of the block, having frontage on three streets. The other option is the block-building or island-building, with frontage on four streets.

In the hills, the plan is determined by the uneven topography in spite of the efforts to attain an orthogonal layout like that of Cerro Alegre and Cerro Concepción. The roads laid out in the ravines, which run into the plain, are fed by a network of narrow streets of changing course; these streets are frequently discontinued, forming crossroads which generate the typical corners of the port city. The situations created by the terrain’s unevenness enhance the beauty of the broken views, which relate any given point of the city to the near or distant natural and man-built landscape.
Valparaíso’s amphitheater-like character is emphasized by "flights of steps" overlooking the sea from the hillsides and vice-versa. However, it is much more than that. As a result of the topography of its hills and numerous ravines, it is possible to have splendid views from the plain towards the hills, from the hills towards the plain and the sea, from one ravine slope towards the other, from one end of the bay towards the opposite one. At a smaller level, the windings of its alleys, the twists of its streets, its bends and crossroads, offer yet another range of perspectives. It is a city that looks at itself in multiple ways; in the words of Lukas, the sketcher, it is a "kaleidoscope".

Figure 12. View of San Enrique street at Alegre Hill.

Figure 13. View of Templeman alleyway at Concepcion Hill.
The Architecture:

Valparaíso’s historical architecture comprises works of the most varied typologies and architectonic styles, applied to constructions ranging from very simple houses to some examples of a relatively monumental architecture in the plain. In most cases, their value lies in their location, their integration to an ensemble and their adaptation to the topography, rather than in their individuality.

The nominated Site accounts for all this diversity. It ranges from erudite works designed by architects with academic education, to works of spontaneous or vernacular architecture, and passes through a large number of high quality buildings which are the work of skilled constructors.

The variety of buildings ranges from the architecture typical of the beginning of the Republic -using elements from the colonial architecture and incorporating some neoclassical features-, to the first manifestations of modern and rationalist architecture. The historicist and eclectic architecture of the second half of the 19th century and the beginning of the 20th, with its neo-baroque, neo-renaissance and neo-classical references, left its imprint on the city. The historicist architecture owes its originality to two factors: its adaptation to the geographic environment and multiple interpretations. Thus, thanks to the contribution of architects and constructors of different origins, in Valparaíso it is possible to appreciate, for instance, the native, North American, British, German and French application of neoclassicism, all of which are peculiar to the city.

This is what allows us to talk of an architecture which is "representative" of Valparaíso. This does not mean that its features are exclusive to the city, very much the contrary. The originality of Valparaíso’s architecture lies in that here a truly complex problem –to build a city in a quite inadequate topographic milieu- has been resolved by taking advantage of the available materials, using effective construction systems, dealing with the geographical, climatic and telluric conditions in a creative manner and embracing all the influences and styles associated to the seaport’s cosmopolite character.

Figure 14. View of Templeman street at Concepcion Hill.
Not only the architectural styles, but also the buildings’ different ways of dealing with the incline and placing themselves facing the sea landscape account for the variety in the hills. There are constructions standing on an artificial horizontal plane, accomplished by means of clearing, filling or the construction of a plinth floor. The architectonic volume built on this sort of plane, thus obviates the incline.

There are also communal buildings consisting of a single volume created around an alleyway or inner street which allow access to the different levels. On this approach, the terracing is produced on the inside and is not appreciated from outside. Examples of buildings standing on man-made plateaus are also frequent.

The available horizontal terrain is increased by means of excavations for enlarging natural terraces; if the horizontal plane is still narrow, it is enlarged by means of projected or pillared construction.

In some cases, showing carefully conceived historicist façades, principles of academic architecture are applied. These are generally designed by a professional architect or an engineer, although the introduction of stylistic elements is also part of the vernacular tradition of the seaport’s inhabitants.

As the houses climb up the slopes thanks to ingenious and creative structural solutions, the volumes become more and more complicated. The sight of the roofs - that fifth façade which is an essential element in the city- is complemented by the incredible shades of color and variety of textures of the houses which, in general, seek to stand facing the sun and the marine landscape.

Figure 15. View of Montealegre street at Alegre Hill.

- The History of the Site

With the Spanish Colonization, Cerro Alegre (Hill Of Joy) become part of the endowments offered by Chile’s Conquistador, Pedro de Valdivia, to the captains who earned honors during The Conquista.

Its first owners were Captain Juan Rodrigo de Guzmán, his wife Ana Hernández, and Captain Nicolás Octavio. The first buildings went up in 1678, when a military base made of adobe was built by order of Governor Henríquez.
In 1672, by common consent, they donated this land to the Augustine order. However, as the Valparaiso’s hills were not considered very valuable at the time, the property went on sale a century later, in 1724. This property included Alegre and Concepcion Hills, bound by the San Agustín, Almendro and Elías ravines.

**Alegre and Concepcion hills** gradually became inhabited as the Plain ran out of available space. The first sign of this expansion came in the early 19th century, when the British businessman, William Bateman, purchased a property on Alegre Hill and built a single house: many of his fellow countrymen soon followed his example. This very specific social and economic group became the first inhabitants of Alegre Hill. They established a residential district with houses of a standard construction superior to that of the period.

Along with this innovative, comfortable architecture, many profuse gardens helped decorate this picturesque early settlement. The vivid colors of both nature and architecture gave this hill its name.

This neighborhood, with its main route, Montealegre Street, maintained these characteristics throughout the entire 19th century.

After the 1906 earthquake, architecture changed significantly. Most of the houses damaged by the quake were replaced by large, one family mansions, which gave the area a more uniform appearance.

On the upper part of this route, where Alegre Hill’s buildings and gardens stand today, as a kind of miniature England, there was a “chueca” (indigenous ball game, similar to lacrosse) field, which could only be reached by climbing the Almendro ravine. This is why the plateau was chosen to build the many houses which cover it today.

*The King’s Cross (Cruz de Reyes)* was erected at the foot of the Hill, with its scenic rock promontory. It is still visible underneath the wavy pavement. Further along the Hill was the royal paved road towards the Cueva del Chivato (Devil’s cave).
As residential districts began to appear on Alegre and Concepcion Hills, these areas began to mature into full-blown neighborhoods. Different programs began to complement the houses and lifestyle of their original inhabitants. The first settlers arrived in 1822, with the British immigrants William Bateman and John Martin. Around 1840, British businessmen (and later the French and the Germans) became worried about safety in the city’s two largest settlements: the port and El Almendral. In response, they settled on the then uninhabited Concepcion Hill. There, they began to build homes reminiscent of their distant homelands: two-story houses with attractive gardens and a view of the bay from every room. Daily they would commute down Tabildad Street (currently Almirante Montt) on horseback making a stable necessary. It stood on the lot currently used by flower vendors, La Pérgola de las Flores.

The British colony worked together to build an Anglican Church, which went up in 1858. Engineer William Lloyd, who had been hired for the railroad works, was responsible. It was the first major building designed for worship and this was followed by the Lutheran Church, on Concepcion Hill, built for the German residents in 1867. Finally, in 1897, San Luis Gonzaga Church was built for the Roman Catholics of Alegre Hill. These three buildings marked the beginning of a lifestyle typical of this specific neighborhood, tolerant of diverse religious beliefs, an attitude that shaped many events in this emerging public space.

Figure 17. Historical photo of Luteran Church at Concepcion Hill.

In 1856, a gaslight system was introduced, and fifteen streetlamps were installed in Concepcion Hill, replacing the old oil lamps, which were a reminder of colonial times and had to be lit in the doorway of each household.

On 1 December 1883, the Concepcion cable car (Ascensor Concepcion) opened, “with wooden cars powered by counterweights, and a hydraulic system operating through water tanks located under the floor of each car, on either side of the run.”

With the appearance of the Concepcion cable car, along with the later Esmeralda, El Peral and Reina Victoria cable cars, a transportation network came into being all along the edge of the Alegre and Concepcion hills, contributing new routes and possibilities to the public spaces, and improving the quality of life.
An 1884 topography map, published by Recadero Tornero, mentions a population of 4,971 inhabitants in Subdelegación N° 8, which was Concepcion Hill. At the time, the town had 100,515 inhabitants, according to the 1880 census.

The urban areas of Alegre Hill and Concepcion Hill haven’t changed their initial layouts. They have important access roads (Montealegre and Templeman Streets) winding up steep slopes, and passageways with small volumes, bow windows, balconies and lookouts. Along these converging roads, slabs of fine antique paving stones still cover stairs and sidewalks. There are also finely wrought tiles, window panes, and iron or wooden decorations, all witnesses to yesterday’s wealth. Both hills possess the same intricate urban layout, in which public spaces, architectural elements and materials wind together to give a sense of territorial unity.

_Alegre and Concepcion Hills_ are both valuable urban landscapes; their buildings form a compact, continuous area of even heights, creating a unique urban setting. They also have the advantage of being part of the city’s “natural amphitheater” structure, facing the ocean, making for beautiful views and great urban textures stretching between waterfront, Plain and hills. There are many lookout points from which to appreciate the area’s wonderful architecture. These neighborhoods, _Alegre and Concepcion_, are important historic sites, since they were both part of the original layout of the port of Valparaiso, dating all the way back to the earliest settlements. They are an important part of a harmonic urban plan of great historic and cultural value. They are also among the first important settlements to expand upward, populating Valparaiso’s slopes, hills and plateaus, and creating a unique relationship between the Plain and their houses, which respects the natural shape of the hills.

Figure 18. Historical photo of Concepcion Hill.
The Object as Such.

We will now analyze those material constitutive elements of the city which, thanks to their adaptation to the milieu, accomplished both originality and universal value.

- Materials

Classification of Materialities in the Historical Buildings of the Alegre and Concepcion Hill’s:

The materials basic used in the construction of buildings in the city of Valparaiso during the XIXth and XXth century are the Adobe, Brick, Lime, Wood, Concrete and Stone.

The Adobe

The Adobe (mud-straw) is a traditional material used in the city of Valparaiso. Consisted of land-straw and clay possesses the quality of being insulating and thermal which is used in the interiors of the walls.

Architectural elements:
- Walls of adobe.
- Caps of mud in skies.
- Caps of mud-straw-sand.

The Wood

The Wood is the more used material in the constructions and buildings is used in structural walls, floors, furnitures, doors and windows.

Architectural elements:
- Roofs.
- Pillars.
- Vertical and Horizontal Walls.
- Windows.
- Doors.
- Furnitures.
Type of wood:
- Roble.
- Laurel.
- Cipres.
- Pino Oregon.
- Alamo.

The Brick
The Brick (brick-mud) is a material that possesses resistant qualities to earthquakes and overload which is in use in the buildings in the walls of masonry and building foundations.
Type of brick:
- Brick relized by hand.
- Brick relized in factories.

The Stone
Architectural elements:
- Basements of Stone.
- Cobbles.
- Ashlars of Stone in Socles.
- Decorative flats floors of Stone.
Types of stone:
- Stone Rolled.
- Stone *Canteada*.

The Lime
Painting wall of adobe.

Type of Lime:
Materiality of the Historical Building Mapping:

Figure 29. Materiality Map of the Historical Buildings at the World Heritage Site.

Definition of the colors of the mapping.

- Steel
- Adobe
- Masonry
- Emptiness
- Concrete
- Adobe – Wood
Techniques

The construction of the buildings during the 19th and 20th century incorporating technologies constructive advanced in the wood and brick, were incorporated by immigrants, who brought specialized techniques.

- The techniques of the construction of the foundation is a continuous of stone - brick and make concrete constructed in differences due to the geographical situation of the hills.

- The techniques of the walls is a structure of wood of one, two or three levels constructed with the system Bloom - Frame and inside the structure an insulating system of adobe. The interior siding of the walls carries out with lime - paper and wood.

- The constructive technology in the cover and roof is a structure of wood. The above mentioned covers possess one skylights, transforms, and diverse vain of light which are inhabited.

- Building that possess his foundations of stone - brick and his walls it shape wood - adobe and his covering possess tinware.

- Building that possess his foundations of stone - brick and his walls it shape brick and his siding possess tinware.

- Building that possess his foundations of stone - brick and his walls it are of masonry of brick and his covering possess tinware.

Figure 30. View of wood and adobe tipology.

Figure 31. View of brick and concrete tipology.
Types of Heritage Buildings in Alegre and Concepcion Hill’s:

Heritage Building type A:
This real estate is characterized for being constructed with massonery of brick in his structural walls like firebreak, fronts and ornamental decorative elements as arches. In his interior they are outlined for structures not soportantes as partitions of adobe and wood, possess furnitures of wood, plaster-works, stuccoes.

Heritage Building type B:
This real estate is characterized for being constructed for the most part by structures of armed, concrete reinforced with rails of trains or other structures. These buildings are composed by rigid structures and in his interior they possess a structure not soportante frivolous as wall of adobe, decorations like plaster-works, paintings in walls, molding and furnitures in fronts. In his foundations they possess walls of stone, with ashlars and also they possess walls of containments consisted of structures of iron, stone and concrete.

Heritage Building type C:
This real estate is characterized for being constructed for the most part by structures of wood and adobe, covered by stuccoes of mud and lime. These buildings are composed by these materials in his interior and exterior. For which there possess structures of wood in exterior and interior walls of adobe which cover with diverse stuccoes. The completions of these buildings are changed being materials and furnitures in wood, iron and plaster-works.

Figure 32. View of different heritage building type.

- Specific Problematic in historical buildings at Alegre and Concepcion Hill’s: Risk, Naural Disasters and Structural Collapses.
  - Seismic Vulnerability.
  - Fires, anthropogenic fire damage to the buildings. Part of the fires originate in those ravines remaining in natural conditions, covered by shrubbery and where people have built some light houses. This renders necessary a constant work of hillside clearing and cleaning. It is only fair to acknowledge the contribution of Valparaiso’s strong firemen tradition in this regard.
  - Landslides.
  - Structural collapses.
  - Earthquakes.
  - Flood.
  - Furniture detachment.
  - Disaster by the collapse of services.
• Materials Pathology.

Adobe Pathology:
- Erosion of the adobes, detachment, cracks, fissures, detachment of the plasterings.
- Detachment of the whitewashed precipice of walls.
- Collapse of the walls.
- Capsize of walls.
- Base of walls undermined, base of wall seated.
- Deformations, bulge, rotation and warpings in walls.
- Placement of erroneous elements on the walls, concrete, between others.

Wood Pathology:
- Fail of pieces.
- Rotting of wood.
- Lacking of pieces.
- Thermites.
- Stress of the wood.
- Drying.
- Placement of chemical paintings on the wood in successive caps.
- Alteration of the original structures of wood with another type of material concerning his structure.

Stone Pathology:
- Crack and deformation: fissure, fracture, start crack, craquele, splitting.
- Detachment: blisteling, bursting, delamination, desintegration fragmentation, peeling, scaling.
- Features induced by material loss: aveolitation, erosion, mechanical damage, microkarst, missing part, perforation, pitting.
- Dicoloration and deposit: crust, deposit, discoluration, efflorescence encrustation, film, graffiti, patina, soling.
- Biological colonitation: alga, lichen, moss, mould, plante.

Brick Pathology:
- Fail of pieces.
- Accession of foundations of stone.
- Condensations of dampness.
- Lacking of pieces.
- Erosion of the bricks.
- Cracks and fissures in the walls of masonry.
- General description and classification about the pathologies.

1. Deteriorations about the interventions and repairs realized by the man of an erroneous way.
   1.1 Elimination of elements or part of them.
   1.2 Mistake of maintenance of the building and constructive elements.
   1.3 Placement of attached elements not belonging to the original.
   1.4 Change uses and distribution of the spaces, causing damage to the above.
   1.5 Later interventions that do not belong to the original.
   1.6 Erroneous repairs in facades.

2. Deteriorations about the external climatic factors.
   2.1 Deteriorations for external climatic reasons.
   2.2 Deteriorations for external reasons and natural disasters.

3. Deteriorations about the placement of erroneous materials.
   3.1 Placement of new materials that not corresponding to the original materials.

4. Deterioration about the erroneous design that not corresponding to the original one.
   4.1 Design for the repair in erroneous form of the existing deteriorations.

- General description about the problematics in the Historical Buildings at Alegre and Concepcion Hill's.
  - The bad state of Conservation of the construction systems, structures systems, façades and stylistic elements.
  - The state of conservation of the materials it is bad owed the different deteriorations which subdividen in physical, chemical and biological damage (thermites) which concerns the structure of the buildings.
  - Authenticity and Integrity in the facade of executed, intervention projects (quality of the intervention project in relation to conservation norms -use variation - height variation).
  - Surveying variation.
  - Environmental agents’ impact (damages caused by pollution; damages caused by natural disasters).
  - Façade modifications; Material alteration (gap-full plan alteration).
  - Style alteration; Alteration due to publicity - Alteration due to paintings.
  - New works’ adaptation (degree of integration to their surroundings’ architectural, urban and cultural values; respect for conservation norms currently in-force).
  - Lack of mantencion in the buildings.
  - Lack of strategic of facades to implementate emergency plans to natural disasters. Incorporation of organism in the emergency plans like the following ones : Blue Shield, Firefighters, among others.
  - Need to incorporate new constructive technology’s for the restoration rehabilitation, conservation and mantention.
• State of conservation in the historical buildings.

The state of Conservation: It is the form of evaluation the materiality and the total set of structure at the historical buildings and his relation with the architectural conservation. A diagnosis was realized and later an evaluation across a scale of the level of conservation, evaluation the original elements and original materiality and the specific deteriorations that concern the buildings which is detailed later.

Scale of the state of conservation:

- Good: The building is in very good state of conservation, does not possess deteriorations, his maintenance has been ideal.
- Regular: The building is in regular state of conservation possesses minor deteriorations only to superficial level, these damages are characterized for lack of maintenance.
- Bad: The building is in poor condition of conservation possesses structural deteriorations, which are not of structural danger, they find superficial and structural average damages. These damages are characterized by reasons of filtrations, demolitions of elements, mistakes of maintenance of the materials, among others.
- Structural collapse: The building is in very bad state of conservation, which possesses damages of structural level, which possesses danger of structural collapse. It is necessary to repair or consolidation due to highly levels of deteriorations. These damages are characterized by reasons of earthquakes and elimination of structural elements.

Figure 33. View of interior intervention.
- **Structural deteriorations types at the historical buildings.**
  The types of which they concern the structures of foundations, walls, giders, roofs, etc.

  - Walls of basement and foundations: Condensation of dampness; there exists in the foundation of stone, high condensation of dampness owed wing lacking in ventilation and partial filtrations.
  - Roof and cover: Rot of the wood, due to filtrations, condensation of dampness; termites impregnate in the pieces of the roofs; corrosion of the coating of zinc for the salinity from the coast of the sea and breaks and fail of the pieces.
  - Superficial deteriorations and facades: those that concern the surfaces of the materials and original completions, these damages are a reason of affectations the elements, mistake of maintenance use and wears of the materials due to the natural aging.
  - Doors, windows: superficial wear, of the wood and paintings; railings, stairs; superficial wear of wood, steps, balustrade of wood; skies and furnitures of plaster and wood: filtrations, rotting, termites; pollution in adobe and wood, detachment of stuccoes and filtrations.

- **The needs of Restoration, Conservation and Rehabilitation**

  The need of reparation takes root in being able to create criteria of conservation, restoration, rehabilitation and maintenance in the different Historical Buildings of the Alegre and Concepcion Hill’s due to the constant physical deteriorations, biological chemists and due to the lack of new technologies to be applied in the buildings that possess structural - constructive pathology and architectural type that they must be corrected.

Figure 34 - Figure 35. View of interior damage’s.
Analysis

The Cultural Historical Values of the Site: 
Cerro Alegre and Cerro Concepción Quarter

From a historical point of view, these two hills, separated by Urriola Street, form a single quarter. To a large extent, the quarter was planned and developed by German and English immigrants, starting from the first half of the 19th century. The part corresponding to the nominated area has the Montealegre, Urriola, Templeman and Almirante Mont streets as its transverse axes.

Given the planned nature of this quarter’s development, its road network and division into lots attempt some sort of regularity within the difficult conditions imposed by both the incline and topography, with a very rich and complex result. Thus, the orthogonal layout of the more or less regular blocks flanking Templeman Street combines with winding streets which edge the hillside or the foothills, such as the Alvaro Besa, Urriola and Beethoven streets. The plan is also crisscrossed by narrow irregular alleyways such as the Gálvez one, and by steep stairways (Fischer, Apolo, Concepción).

Figure 36. View of Atkinson Promenade at Concepcion Hill.

The interruptions of the most irregular streets and the differences in level, create multifaceted spaces. A tour of the quarter steadily offers a chain of miscellaneous realities and unexpected views that surprise the foreign visitor. It is the "kaleidoscope" Lukas, the sketcher, used to refer to.

This quarter combines the different manifestations of public spaces existing in Valparaíso: squares, viewing points, promenades, alleyways, stairways, the elevators’ top station and the havens usually formed by street intersections and bifurcations. In many cases, the plan’s narrowness and peculiarities determine a superposition between public and private space. The alleyway and the promenade are an extension of the house, a fact which explains some cases where the circulation core of an apartment building is also a public alleyway (Bavestrello). This superposition between public and private spaces is complemented by the richness of the intermediate spaces.
Among the buildings in this quarter there are examples of each and every constructive means of adaptation to the incline, including the use of the roof as a “fifth façade”. There are examples of buildings which, faced to the scarcity of flat terrain, resort to the expedient of projecting surfaces or to that of constructing on pillars. Others achieve the horizontal plane by means of leveling, filling or the laying of a plinth floor, for then building the architectonic volume on this plane. There are also communal buildings consisting of noticeable terraced volumes, rarely of more than five levels, while others are terraced on the inside without this being noticeable from the outside. Some other communal buildings consist of a single volume articulated around an inner street or hallway allowing access to the different levels.

![Figure 37. View of Alegre Hill.](image)

There are buildings which are examples of academic architecture, with fine historicist façades, generally designed by professional architects, while others are the work of highly skilled building craftsmen, lacking formal education. The architecture of this quarter has been influenced by European models and by the workmanship of North American master carpenters.

In many houses of this quarter it is possible to appreciate a very noteworthy characteristic of the houses in the hills: from the street, they look low and simple, while inside them and from the opposite perspective, we are able to realize their real dimension, their opening towards the sun and the sea, their way of climbing up or down the hill. In those having several levels, access is frequently through the upper one. The houses look at each other and there are no minor or secondary façades.

The traditional residential architecture of Cerro Alegre and Cerro Concepción incorporates the styles characteristic of the countries of origin of their first inhabitants, the British and German immigrants. Their intention was to live at some distance from the crowded and noisy plain, in contact with nature and the landscape. This can be appreciated in the small gardens and in the richness of intermediate spaces such as corridors, verandas and balconies which enhance the relationship with the immediate surroundings.

Wood is the predominant, although not exclusive, material both for the structure and finishing. Metal covering, often corrugated, is very common. These houses often have high quality finishing –stained-glass windows, beveled crystal, ornamented hardware, wooden friezes, etc.-, a testimony of their original owners’ wealth.
From the north end of the quarter, that is, from Plaza Justicia, the ascent to Cerro Alegre is by way of the Subida El Peral or the elevator of the same name. This elevator, holding up to 10 passengers, has a 55 meters long track and reaches an elevation of 39 meters with a 48 degrees inclination.

![Figure 38. View of Baburizza Palace at Alegre Hill.](image)

The El Peral Elevator top station is an isolated building differing from the rest of the stations in its contemporary style, transparence and interior luminosity. It leads to the Baburizza Palace, or else to the Subida El Peral, from where it is possible to appreciate buildings looking towards the slope through their façades furnished with glass corridors.

The Baburizza Palace, the main architectonic landmark in Cerro Alegre, owes its name to Don Pascual Baburizza, a nitrate entrepreneur who bought it in 1925 for using it as his residence. It is deemed a palace due both to its construction and to its furnishing, which includes a valuable lift. The palace, designed by two Italian architects who worked in the region at the beginnings of the century, was finished in 1916. Of art nouveau style, it is a building of irregular plan and elevation, which stands out for the richness of its volumes and façades, its roofs at different heights and its exceptional turret with spire. The building –currently under restoration– houses the Municipal Museum of Fine Arts which exhibits a valuable collection of European and Chilean painting, mostly collected by the palace’s former owner. The Baburizza Palace grants character and dignity to the Paseo Yugoslavo (Yugoslavian Promenade), a viewing point built by Don Pascual for the enjoyment of the city inhabitants. It is a formal public promenade with a great view of the bay. The palace is the main landmark of an ensemble formed by the Paseo itself, the El Peral Elevator, the University of Playa Ancha’s School of Art and the square in front of it –Plaza Edwards–, plus several houses edging the hillside. Most of these houses are representative of these hills’ architecture and one of them is now an art gallery. All this, together with the fact that many artists have taken residence in the quarter, imprint on this area a markedly artistic character, which gets blended with its tourist importance.
The descent from the Baburizza area towards Urriola Street through the steep Apolo Stairway, or else through the winding Alvaro Besa Street, results in an interesting tour. From the latter it is possible to appreciate the magnificent houses on the opposite hillside climbing down from the Lautaro Rosas Street. If someone chooses this way, he or she will run across the Pasaje Bavestrello’s upper access, the central axis of an remarkable apartment building of the same name.

The Bavestrello Building stands on an steeply inclined site, overcoming the problem by means of two volumes -one of them internally terraced-, connected through a central stairway -the Bavestrello Alleyway-, which is one of those public-private spaces abounding throughout these hills. The volumes are transversally furnished with a narrow light yard, noticeable from the central stairway. The building, built in 1927, combines historicist features and those typical of early rationalism. Its two main façades, at uneven levels, differ in their formal expression, without being evident they belong to the same unit.

Once in Urriola Street, there are some unique views towards the plain and inland because of its sinuosity and the buildings standing at different elevations of Cerro Alegre and Cerro Concepción. We can go into Cerro Concepción through the steep Fischer Stairway, a stair that will lead us to the Gálvez Alleyway’s central intersection. This alleyway has a flat yet zigzagging development, a fact which added to its narrowness, lends it a unique character. The alleyway ends in a small hard square which, by means of yet another stairway, allows access to the Paseo Gervasoni (Gervasoni Promenade), another viewing point of the terrace sort, that houses the Concepción Elevator top station.

Figure 39. View of Lautaro Rosas street at Alegre Hill.

Figure 40. View of Gervasoni Promenade at Concepcion Hill.
The Concepción Elevator is the oldest in Valparaíso. It was inaugurated in 1883 thanks to the initiative of an entrepreneur who in order to do so formed the Valparaíso Mechanical Elevators Company. The elevator, with a maximum capacity of 7 passengers, covers a distance of 70 meters at an elevation of 47 meters above sea level and a 46 degrees incline. Its lower station, in Prat street opposite the Plazuela Turri, is located at the far end of a narrow passage between tall buildings, and advertises itself by means of its traditional sign and lamp post. Its top station is an inconspicuous, isolated building at the edge of the slope, only noticeable for its traditional sign and lamp post.

The Paseo Gervasoni’s viewing point provides a unique view of the Turri Building with its characteristic clock. The Paseo is surrounded by traditional houses, among which the Lukas Foundation head office, dedicated to the promotion of sketcher Renzo Pechennino’s work stands out.

Going deeper into Cerro Concepción through Templeman Street, arrive at the Saint Paul’s Anglican Church. The exceptional historic value of this building is closely related to its austerity, determined by the context in which it was built, when the ban on the public exercise of different creeds other than the Catholic was in full force. This church, of neo-Romanesque and neo-Gothic features, sought to keep a low profile by means of an horizontal design, the absence of a tower, the lateral accesses and the low fence that surrounds it. One of the church’s fundamental elements is its valuable organ, purchased in 1903 by the community and consecrated in memory of the late Queen Victoria, which in its time was regarded as the best in South America. Also valuable are the stained-glass windows, installed by late 19th - early 20th century.

The church, located near the friendly Paseo de los 14 Asientos (The 14 Benches Promenade), merges with the surrounding residential architecture. Nowadays the church is used for religious and cultural purposes, such as excellent concerts in which it is possible to enjoy its magnificent organ.
Going back towards the hillside facing the sea on Concepción Street, it is possible to access the Paseo Atkinson (Atkinson Promenade). This is a third viewing point allowing great views towards Plaza Aníbal Pinto (on the southern end of the buffer zone), which is a meeting point of the plain’s thoroughfares and the transverse streets running into the Cerro La Cárce, Cerro Panteón and Cerro Concepción.

Continuing along Beethoven Street, arrive at the German Evangelic Church, the other great religious landmark in the quarter. This church, built in 1897 in accordance with the Bliederhausen brothers’ project, has been regarded as one of the best churches ever built on a hill. In fact, it stands on an steeply inclined irregular terrain, breaking with its layout the order of its immediate surroundings and positioning itself in such a way that its view from Almirante Montt street is one of the most peculiar, attractive and representative in the city.

The church’s plan is rather special; it is a diagonally positioned rectangle to which some irregular forms have been attached in order to brace the main body’s structure. This main body has on one side a slender tower and a semi-orthogonal lateral nave on the other.

The neo-gothic inspiration of this church finds its expression in the tower’s slenderness and verticality, in the buttresses, supported arches, ogival windows, as well as in the design of its ornamental elements. The church has stone foundations and had originally brick walls in its two levels; however, after the 1906 earthquake, the second floor was rebuilt with wood. The outer covering is of galvanized corrugated steel sheets. On the inside, the most remarkable feature is the exposed roof structure which comprises wood elements, both straight and curved, of artistic carpentry workmanship, fastened by metal tighteners.

Figure 42. View of San Luis Gonzaga Church at Alegre Hill.

We have chosen to characterize this quarter through the description of one of its possible pedestrian tours, since its diversity refuses to be schematized. This is so due to the high concentration of Valparaíso’s architectural and urban values which Cerro Alegre and Cerro Concepción have to offer. As such, they are probably the most dynamic quarter in the city. In fact, the commercial value of the buildings in this quarter has increased enormously during the last years, becoming the city’s most valued residential area. The challenge to public policies is to foster the quarter’s cultural values, preserving its character and preventing the emigration of its present inhabitants.
Criteria for Intervention

In the research work, about the present state of conservation, it comprised a field work in which all the buildings located in the Alegre and Concepcion Hill’s Area were inventoried and evaluated from the outside on the basis of some previously set criteria.

The general evaluation of the state of conservation of each of the buildings, is made according to the following categories: good, average and bad.

The evaluation criteria took into account both the value of the ensemble and its material and structural condition, while the three categories were defined as follows:

- **Good**: it corresponds to those constructions which maintain their original architecture, are harmoniously integrated to the ensemble, are used for purposes in accordance with their architecture and whose structure is in good conditions.

- **Average**: this category is applied to the following constructions:
  
  Those which are in good structural conditions, but whose original architecture has been notoriously subjected to intervention to the detriment of their values.
  
  Those which maintain their original architecture, but present structural conservation problems.
  
  Those which maintain their original architecture, but are used for purposes which are inadequate in this regarding.

- **Bad**: this category is applied to the following constructions:
  
  Those which present serious structural problems or irrecoverable damage.
  
  Those whose original architecture has been subjected to a severe intervention which has deprived them of their architectonic value.
  
  New constructions out of keeping with the ensemble.

As shown in this analysis, the majority of the buildings within the World Heritage Site, are in good state of conservation. However, there is an important difference between the area corresponding to Alegre and Concepción Hill’s, about the new interventions, as an area with significant investment.

According to the diagnosis presented, has witnessed the application of different rules and instruments of territorial planning in the study area, territory over which converge a number of regulations, with criteria of protection and not necessarily uniform. It should be added the powers of different government agencies that have custody of the built heritage in the city, which hampers an effective asset management.

The existence of standards and competencies can be seen illustrated by the overlay of the level of protection existing in the “Intervention Manual of Typica Zone” (by the “National Monuments Council”, about the Law of National Monuments Nº17.288) and the statement of “Historical Conservation Areas” (by the City Hall of Valparaiso, about the Municipal Regulatory Plan) within the same territory.
This situation has occurred because of the limited historical coordination that has existed between the different agencies (National Monuments Council, Valparaiso City Hall and Ministry of Housing and Urban Development, through its Regional Agency for the 5 Region of Valparaiso), when designing the Legal Status for the protection and intervention at the urban level and for the Historical Buildings in the “Typical Zone”, which led in some cases, ignorance and confusion of the inhabitants when developing intervention projects, and thus have difficulty in order to approve projects.

Figure 43. Historical Buildings classifications of the National Monuments Council.

In the Legal Status, at present, the entire property being nominated enjoys the status of “National Monument” under the provisions of Law N° 17.288 of National Monuments (1970). The “National Monument” category applicable in this case is the category denominated “Representative or Picturesque Zone”. The entire property being nominated was declared National Monument under the above mentioned category by virtue of Ministerial Decree N° 605 of the Ministry of Education, issued on August 31, 2001 and published in the Official Gazette on September 25, 200148.
The nominated property is also included in the “Area of Historical Preservation” category, in accordance with the Sectional Plan "Conservation of Properties and Areas of Historical Preservation", approved on October 10, 1997. This Plan incorporated into the Regulatory Plan of Valparaíso the protection at a City Hall level of the architectural and urban heritage, within the framework of the General Law of Urban Development and Construction.

However, after 2002 changes have been made to reconcile the General Ordinance of Urban Development and Construction and operating the various instruments of protection provided for in Law 17.288 of National Monuments and the General Law of Urban Development and Construction.

Among the most significant advances can be found the following modifications:

- The Regulatory Plan of Valparaiso must not only identify “Conservation Historic Zones” and Conservation Historic Buildings”, but also the “Typical Zone” and “Historic Monument” planning with special rules.

- The use of “Sectional Plan” to establish the rules in the Heritage Areas. Establishing architectural features to certain projects in sectors linked to “National Monument” or in the case of Conservation Historic Building and Conservation Historic Zone, and required an area the adoption of a morphology of a particular architectural style facades.

Figure 44. Land Uses map.  
Figure 45. Height buildings map.
Rating of Buildings in the Typical Zone, Alegre Hill and Concepcion Hill:
Like the existing urban zoning today in the Typical Zone, an overlapping categories of protection of existing buildings in that area, making it difficult to obtain a permit for work and hinders the effective management of the architectural heritage.

Structure to standardize these categories:
- Grade 1: Historic Monument
- Grade 2: Buildings of Historical and Artistic Value – Historic Conservation Building (Level of Intervention 1)
- Grade 3: Buildings of Unique – Environmental Value – Historic Conservation Building (Level of Intervention 2)
- Grade 4: Building of Environmental Value
- Grade 5: Discordant Building
- Grade 6: Empty Site

The following table can see the proposal as defined by Degree of Protection, Level of Intervention by attributes and their respective Assets Intervention Criteria:

<table>
<thead>
<tr>
<th>Protection</th>
<th>Description</th>
<th>Intervention Levels by attributes</th>
<th>Criteria for Intervention</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Historic Monument</td>
<td>Integral Conservation</td>
<td>Conservation, Science Restauration, Maintenance and Liberation works</td>
</tr>
<tr>
<td>2</td>
<td>Historic - Artistic</td>
<td>Exceptional Value</td>
<td>Conservation, Restauration, Rehabilitation, Maintenance works</td>
</tr>
<tr>
<td></td>
<td>HCB Grade 1</td>
<td>Architectonic Type</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Unique-Environmental</td>
<td>Singular Value</td>
<td>Rehabilitation, Reparation, Minor works and Maintenance works</td>
</tr>
<tr>
<td></td>
<td>HCB Grade 2</td>
<td>Architectonic Type</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Environmental</td>
<td>Contextual Value</td>
<td>Partial Demolition, Reparation, Expansion, Minor Works and Maintenance works</td>
</tr>
<tr>
<td>5</td>
<td>Discordant</td>
<td>Without Heritage Value</td>
<td>Partial and Total Demolition, New Building, Expansion, Remodeling and Maintenance works</td>
</tr>
<tr>
<td>6</td>
<td>Empty Sites</td>
<td>New Development</td>
<td>New Building</td>
</tr>
</tbody>
</table>

Figure 46. Degree of Protection, Level of Intervention and Assets Intervention Criteria table.
Load Capacity

The objective in this matter, is to provide an analysis of Conservation Policies and Development, meet two fundamental conditions between the balance of structure and use:

- Respect and preservation of urban-architectural features of the Historical Buildings.
- Conserve the diversity of uses, with emphasis on strengthening the residential use, and social integration that characterizes these two hills.

The process to follow, is a management tool, which will provide the criteria to propose policies in relation of use, occupancy, accessibility, provision of infrastructure services, vehicular congestion, definition of pedestrian areas and accesses, etc.

The objective is to obtain the maximum acceptable limit of occupancy of areas and buildings, without affecting the integrity and authenticity values.

These are: **Authenticity**, referring to the conservation of the environment, both in functionality as in the forms of appropriation of space; and the **Materiality**, as reflected in the materials, building systems, styles and ways of life which leave tangible evidence as "the patina of time".

Information will be obtained from the predominant use and population density by zone and building, through the following variables:

- Identification of land use, per floor of each building.
- Built area (square meters).
- Usable area of land (square meters).
- Empty Sites, the square meters are listed in the site area, applying the rules of new buildings or "the gap", this is the maximum height of the predominant in the surroundings.

Is a concern, the overuse of buildings, the abandonment and loss of the original inhabitants, and replacement of housing for other uses such as shops, bars, restaurants, hotels, etc., thus requires housing policies and investment incentives of owners.

For this reason, it requires to establish the maximum number of housing, shops and tourism that could "support" each of the historical buildings, without affecting the heritage features to be preserved.

Figure 47. View of Urriola and Templeman street’s at Concepcion Hill.
Flow Methodology Table.

Figure 48. Load Capacity table.
Proposal

Maintenance and Repair: Conservation and Restoration

- Program of restauration of the facades.

The Alegre and Concepcion Hill’s possess problematic in his facades, street furniture, advertising and electrical system of illumination.

In general they are affected by a mistake of conservation of his originality. A general mistake exists in the deterioration of paintings, detachments of materials and the incorporation of elements not original.

Definition of criteria of the programme:
- Definition of a panton of colors of the facades.
- Definition types of signs.

Restoration of the facades:
- Restoration of the furnitures on facades.
- Evaluation of the furnitures in poor condition.
- Aesthetic integration in facades and integration of elements lacking.

Production of City Hall Decrees:
- To deliver a list of policies of the City Hall of Valparaiso, about the World Heritage Site.

Figure 49. View of Cumming street at Concepcion Hill.

- Program of evaluation and restauration structures of Historical Buildings at Alegre and Concepcion Hill’s.

The problems will have to be resolved depending on the conditions and pertinent needs, respecting the aesthetic and historical values, as well as the physical integrity of the structure or of the site of historical character.

The previous necessary analyses in the buildings with problematic structural:
- Inspection, investigation and monitoring about the structure.
- Determination of the mechanical characteristics and state and damage.
- Determination of the dynamic characteristics static in Laborator tests.
- Monitoring the structure repair and structural reinforcement.
- Incorporation of technology to repair and reinforcement.
- Reinforce structural exterior elements.
- Reinforcements structural interior elements.
- Reinforcements structural elements in the foundations.
- Seismic Reinforcement.
- Created a program of investigation and test for the elimination of biological agents; campaign of identification of biological areas.

Any proposed intervention will have to tend to:
- To use methods and traditional technology.
- To be technically reversible.
- At least, do not hinder or to prevent the works of conservation, which could be subsequently necessary.

To intervent as little as possible in the historical structures of wood constitutes the whole ideal one. In some cases, the minimal intervention directed to assuring the preservation and conservation of these structures of wood will be able to mean his disassembly, totally or partially, and his subsequent assembly, in order to allow that the necessary repairs should be effected.

When interventions are realized, the historical structure of wood must be considered to be as everything; all the materials, included the pieces of the framework, piers, shutters and shutters, roof, soils, doors and windows, they must receive the same attention. At first, they must preserve to the maximum the existing materials.

Figure 50. View of structural repair in interior.

Figure 51. View of structural repair at basement.
Method

Assessment, Intervention and Monitoring Records
This is a research about the Tipology and the Values of the Historical Buildings, with a "Methodology of Records".
This is a plan and manage the Tangible Heritage, about Preservation, Protection and Give Value, a type of tools to direct the interventions in Historic Buildings.
Has been created and established, a Methodology of Records to Assessment, and Intervention, will define the Sustainability, for Monitoring of the World Heritage Site.

- **Methodological Intervention Plan of Historic Buildings:**
  Establish criteria to implement technical methodologies of intervention in Historical Buildings, with the aim of determining guidelines.
- **Monitoring Plan:**
  Requires specialized and technical supervision of the World Heritage Site, through a Monitoring Plan, which safeguards the processes of recovery projects in Historical Buildings, and also about the UNESCO Monitoring in 2011.

The Information and the Research:
The first evaluation of the state of conservation of the Historical Buildings, allowed the analysis of all the constructions in the Alegre and Concepcion Hill’s, taking into consideration the following four aspects:
- Resistant structure.
- Covering.
- Roof.
- Authenticity and integrity.

Variable and Indicator:
- Material State of Conservation: construction systems, structures, façades, stylistic elements, etc. (Incidence of pathologies caused by humidity, xylophages agents, etc.)
- Authenticity and Integrity in the face of executed intervention projects. (Quality of the intervention project in relation to conservation norms; use variation; heght variation and surveying variation.)
- Environmental agents’ impact. (Damages caused by pollution; damages caused by natural disasters.)
- Façade modifications. (Material alteration; gap-full plan alteration; style alteration; alteration due to publicity and alteration due to paintings.)
- New works’ adaptation. (Degree of integration to their surroundings’architectural, urban and cultural values; respect for conservation norms currently in-force.)
Objectives of the Records:
The Records has been designed to evaluate four levels of work and can be interpreted as follows:

- Specific: Identification of the Historical Building: identifying attributes of heritage value; relationship building with its surroundings; definition of degrees of protection, types of interventions and recommendations.
- Master Plan of the World Heritage Site: Support tool in the Legal Status and the Load Capacity.
- Heritage Management Office: Definition the criteria for the management of the Heritage, supporting the investment and guide the development of the World Heritage Site.
- Valparaiso City: Maintain the characteristics that led the declaration of the Historical Center as a World Heritage Site.

The Design: Digital content data Record for the Historical Buildings

(Access):

1. Identification:
   1.1. ROL: Down the registration number of the land.
   1.2. Category: Indicates the unit of study; for example Historic Monuments, Conservation Historic Building and Empty Site.
   1.3. Address: Shows the location of the building in its context and surroundings, for each one of streets.
   1.4. Location: Territorialised location of the Historical Building, according to its neighbourhood.
   1.5. Geo: Identify the coordinates associated with GIS.
   1.6. Location Map: Graphic location of the building in its immediate context.
   1.7. Photos: Enables the recording of the most representative photographs of the building.

2. Technical Information:
   2.1 Levels: Sets the total number of floors of the building.
   2.2 Year of Construction: Identifying the year of construction of the building, depending on the available information.
   2.3 Owner: Identifies whether for public or private property.
   2.4 Area: Identifies the area in square meters of the building and its occupancy rate of soil.
   2.5 Username: Recognizes the type of user-inhabitant of the building, whether owner or tenant.
   2.6 Use: Recognize the type of use, about the Legal Status.
   2.7 Patent: Recognize the activity associated with the use of the property.
   2.8 Materiality: Identify the predominant material of the structure, recording and the type and level of intervention.

3. Morphological Characteristics:
   3.1 Volumetry: Identify the composition of the volume of the building.
3.2 Style: Identifies the relationship of the building with a recognizable architecture style.

3.3 Façade: Identify the characteristics of the composition of the facade, in the "full-empty" and indicates if there is symmetry. It also indicates if there is publicity attached to the façade.

3.4 Roof: Identify the characteristics of its formation.

3.5 Plant: Identifies the interior organization of the distribution of design.

3.6 Elements of Value: Identifies if the building have a value element in the façade, roof or interior.

4 Urban Situation:

4.1 General Photography: Sets an image of the urban context.

4.2 Topography: Sets the morphology of the terrain (flat or inclined).

4.3 Location: Shows how to locate the building in the site.

4.4 Grouping: Identifies the dominant form of partnership in the urban context of the building.

4.5 Implementation: Identify how the building is located on the ground, based on the characteristics of foundation.

4.6 Roads: Identify the hierarchy of each of the streets facing the building.

4.7 Relationship Context: Identify linkages with other important buildings of the environment (Historic Monuments and others Historic Buildings).

4.8 Fragility: Identifies the level of vulnerability of the environment.

4.9 Urban Impact: Identifies the level of influence that the building sector.

5.0 Assessment and Value:

5.1 Heritage Value: Related about the Legal Status of the World Heritage Site.

5.1.1 Historical Value: Related to local or national history.

5.1.2 Urban Value: Relates to its contribution in shaping the urban landscape and its relationship to elements of heritage value.

5.1.3 Architectonic Value: Relates to the relevance of the architectural typology is representative of a style or time.

5.1.4 Economic Value: Relates to the general state of conservation of the building and its surroundings, the value of land and the material that is built.

5.1.5 Social Value: Relates to recognition of the inhabitants, either in their heritage features, such as the significant value of the surroundings.

5.2 Protection Degree: Related about de different categories of the National Monuments Council.

5.2.1 Historic Monument Value: Buildings of historic interest, being protected at the national level.
5.2.2 Historic – Artistic Value: Building for its historical, artistic or architectural and urban relevant values, becomes the protagonist of the environment.

5.2.3 Unique-Environmental Value: Building for its volumetry and treatment of the façade has elements of interest and a contribution to the environment.

5.2.4 Environmental Value: Building for its volumetry and treatment of the façade, no highlights environment.

5.2.5 Discordant: Building because of its shape, size, composition and materials, alter the unit of the urban surroundings.

5.2.6 Empty Site: Site that no have a building or maintaining in some cases the walls of a building.

5.3 Intervention Level: General category of intervention, according to the valuation of the attributes recorded.

Definition of degrees of value attributes for registered:

5.3.1 High level: It is important for the authenticity or integrity of constructive aspects, functional or aesthetic of the building and the surroundings (3 Points).

5.3.2 Middle Level: This is important in aspects of structure and image aesthetics (2 Points).

5.3.3 Lower level: Is not an important aspect of the structural elements, formal or functional about the building (1 Point).

5.3.4 Null: There is no relationship or deterioration leads to the integrity and authenticity of the building (0 Point).

6. References: Identify all types of references of the building, while those registered in the field, including publications.

7. Criteria for Intervention: Logs situation regarding legislation affecting the building, works by defining allowed and restricted, and specific intervention.

7.1.1 Planning requirements applicable to building: Identifies the area covered by the regulations of the Regulatory Plan, identifying permitted and not permitted uses, maximum density, maximum height, grouping system, rate of construction, distance, percentage of occupation of upper floors, parking, etc.

7.1.2 Protection area of Views: Indicates whether the property is protected by the standards of any Promenade in the Hill.

7.1.3 Typical Zone Area: Indicated in wich part of the Typical Zone are the building.
7.1.4 World Heritage Site: Indicates if the building located on the World Heritage Site or its Buffer Zone.

7.1.5 Types of works allowed: According to the level of intervention levels will be established and criteria for action, able to define and restrict actions.

7.1.6 Level of Intervention A: Buildings being declared a Historic Monument, can not be demolished and in general may be subject to conservation.

7.1.7 Level of Intervention B: Because of properties with greater appreciation of its heritage attributes, they will work for the restoration and preservation.

7.1.8 Level of Intervention C: Buildings can be operated with maintenance works to improve the characteristics of value identified.

7.1.9 Level of Intervention D: Buildings can be operated with maintenance works to improve the characteristics of urban value identified.

7.1.10 Level of Intervention E: Buildings with low value, allowing higher levels of intervention and demolition.

7.1.11 Intervention Conditions: Have been altered levels of the attributes in the Recods, to make recommendations for the value.

Figure 52. General view of Atkinson Promenade.
Figure 53. Certificate Preliminary Information record.
## 4.- CRITERIA FOR INTERVENTION

<table>
<thead>
<tr>
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**CONDITIONS OF INTERVENTION** (Depending on the attributes of value of the Historical building and its surroundings)

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## 5.- ANNEXES

**INDICATE THE LOAD CAPACITY**

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Figure 54. Analysis Intervention Criteria record.
4. URBAN LOCATION

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AUTHOR, PUBLICATIONS, ETC.

7. INTERVENTION CRITERIA

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AREA

SECTION, TYPICAL ZONE

WORLD HERITAGE SITE

CONDITIONS OF INTERVENTION (Depending on the attributes of value of the Historical Building and its surroundings)

8. AUTHOR

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**Figure 55. Valuation and Monitoring record.**

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| IMPLANTAION                   | Form        | Additional Data |
| HIGH, MEDIUM, LOW            |             |                 |

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| STREET 2                      | PEDESTRIAN-VEHICULAR |         |
| STREET 3                      | PEDESTRIAN-VEHICULAR |         |
| STREET 4                      | PEDESTRIAN-VEHICULAR |         |

| CONTEXTUAL RELATION            |              |
| MUSEUM-BUILDING               | RRL          |
| MUSEUM-COURT                  | RRL          |
| PUBLIC SPACE                  | RRL          |
| REST                          | RRL          |
| OTHERS                        | RRL          |

| ROAD                          | USE         | HIERARCHY |
| STREET 1                      | PEDESTRIAN-VEHICULAR |         |
| STREET 2                      | PEDESTRIAN-VEHICULAR |         |
| STREET 3                      | PEDESTRIAN-VEHICULAR |         |
| STREET 4                      | PEDESTRIAN-VEHICULAR |         |

GENERAL COMMENTS

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GRADOS DE PROTECCION

HISTORIC-ARTISTIC

DEGREE OF PROTECTION

B
6. REFERENCES

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7. HISTORY OF INTERVENTIONS

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Discussion and Conclusions

With the aim of coordinating all the interventions, projects and initiatives about recovering and sustainable development of Historical Buildings in Alegre and Concepcion Hill’s, we create this Plan to Conservation, Management and Monitoring, like a principles and actions to “Renewal and Urban Rehabilitation” of the Tangible Heritage, like a different tools to education purpose and to improve the quality of life of the inhabitants of the World Heritage Site.

This Project will guarantee the continuity of a process that bases its development, on the capacity to generate a instrument based on the local reality. Also, this integral vision that preserves the Historical, Cultural, Urban and Architectonic Values, that allow the Reactivation of all the city, taking advantage of its potencialities and opportunities.

The Recovery and Rehabilitation, establish in a present view, and also, about the sustentability of the future.

It will be possible to get and integral political, about Urban and Heritage, founding the balance between activities like Conservation and the growth of the Community.

Figure 56. View of Concepcion Hill surroundings.

Figure 57. View of Alegre Hill surroundings.
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An Architectural Guide, Government of Chile, Ministry of Housing and Urban Planning ("Junta de Andalucía").

The Recod Cards of Relevant Buildings and Public Areas, Government of Chile, Ministry of Public Works, Department of Architecture.


Ingenery Structural of the Historical Buildings, Edited by Roberto Melli, Fundation ICA, Mexico 2002.


WWW.MONUMENTOS.CL
WWW.MINVU.CL
WWW.ICOMOS.ORG