#### **Critical intervention:**

the liminality of earthquakes, fragments, and palimpsests as alternatives to preservation in Mexico.

by

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Enrique Aureng Silva Master of Design Studies in Critical Conservation

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Seguimos,

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## Preface

Historic buildings are the physical signs of the past. They are the material evidence of other times, other peoples, other ways of understanding life and architecture. Interpreted as such, they are frequently associated with particular historic narratives, they become the objects and recipients of cultural memories, and more often than not, they get connected to notions of national value, of particular heritage discourses that tend to emphasize certain historic narratives while neglecting others.

However, historic buildings, like any other building, are also in constant transformation. Not only their physical materiality wears down – their surfaces erode and their elements get modified – but also the meanings, the different uses, the subjective values and narratives associated with them are ever-changing and transforming.

In this way, traditional preservation and conservation practices – which can be traced back to the Renaissance and that were theorized for the first time during the nineteenth century in Europe – tend to fix historic buildings in a certain particular period of the past. In order to preserve the material qualities, the historic appeal, the cultural relevance of certain architectural objects or urban landscapes, the methods and theoretical frameworks of preservation tend to set historic structures, and sometimes even their immediate contexts, as landmarks worth of protection because of their intrinsic historic value. However, what histories are being told?

History, heritage, national narratives, social constructs, identity, authenticity and memory are just some of the many concepts that come to mind when dealing with historic buildings and their surroundings, all of them getting interpreted, fixed or modified in different ways when preservation, conservation and/or restoration techniques are applied to them in every-day circumstances.

But what about extraordinary circumstances? What happens when natural disasters damage historic fabric? What should be done when an earthquake hits and partially destroys a sixteenth century monastery that is supposed to appeal to the universal cultural interest as a World Heritage Site? Should the same techniques and theories be applied to the natural weathering of a masonry wall than to a collapsed bell tower? What should the role of preservation be when a chapel recognized as a national landmark gets its vaults and walls destroyed? What is the role that the community around the damages should take in deciding what to preserve and what to forget?

This thesis proposes, through a re-interpretation of the concept of liminality, that earthquakes, and specifically the repetitive nature of earthquakes in Mexico, should be seen as an opportunity for change. Change in the interpretation of certain historical accounts, change of heritage discourses, change in the relation between historic preservation and historic buildings and change in the structures of power that dictate the narratives associated with them. All of these should be questioned in order to create new architectures, new urbanisms, and new social interactions that, while still reflecting on the past –on the physical and non-physical fragments left by the catastrophes– use the historic fabric not as a nostalgic element to lament loss, but as a starting point for where to imagine new alternatives.

## Mexico and its earthquakes: Learning from catastrophes.

Because of its geographical location, the west coast of Mexico has historically being prone to earthquakes.<sup>1</sup> Located over the boundaries of the Cocos Plate, the North American Plate and the Caribbean Plate, earthquakes along the Pacific coast of the Mexican territory have been felt and documented for big part of the territory's history. According to the U.S. Geological Survey (USGS), since 1902 there have been around 4,000 earthquaeks with a minum magnitude of 4.5  $M_{wr}$ .

4.5  $M_{\rm W}$  serves as a threshold to identify earthquakes that can be felt by humans without the aid of any seismologic instrument. This means that approximately every 11 days somewhere in Mexico an earthquake has been felt during the last century. Furthermore, 49 major earthquakes with a minimum magnitude of 7.0  $M_{\rm W}$  inside Mexico's political boundaries, 47 of which had happen either along the maritime waters or inside the territory of one of the western Pacific states of the country. Nevertheless, only two had happen in the landlocked state of Puebla, where the Cocos Plate was broken during September 19th, 2017, causing the earthquake that has triggered this research.<sup>2</sup>

One of the most destructive of the aforementioned earthquakes happened in 1985. On September 19th, 1985 at 7:17am (UTC -6) an 8.1  $M_{\rm W}$  earthquake hit the Pacific coasts of the Mexican state of Michoacán, 45 km inland from the coast city of Lázaro Cárdenas. The powerful earthquake left at least 9,500 fatal victims, about 30,000 people injured, more than 100,000 homeless, 3,124 damaged buildings in Mexico City alone and around 4 billion USD on economic loss.<sup>3</sup> That event has been deeply embedded in the collective memory of Mexican society.

On September 7th, 2017 at 11:49 pm (UTC-5) an 8.2  $M_{\rm W}$  earthquake stroke 57 km southeast off the coast town of Salina Cruz, Oaxaca.<sup>4</sup> This earthquake left 110,000 damaged buildings and 102 victims around the southern states of Chiapas, Oaxaca, and Tabasco.



Image 01. Around 4,000 earthquakes of 4.5 M have occurred in Mexico since 1902. Source USGS.

Commemorated every year across the country with symbolic evacuation drills and respectful moments of silence, the *"Terremoto del 85"* (Quake of 85) was more present than ever in the minds of the millions of Mexicans remembering both the *"historic"* and the most recent catastrophe. Then, at 1:40 pm (UTC-5) on the very same September 19th, but exactly 32 years later, and just eight days after the previous disaster, a 7.1  $M_{\rm W}$  earthquake struck the central part of the country, the epicenter 1km away from the town of Ayutla in the landlocked state of Puebla.<sup>5</sup> The official numbers accounted for 369 deaths, more than 5 thousand houses destroyed in Mexico City alone and a total of 250 thousand people left homeless across the country.<sup>6</sup>

As part of the recovery efforts for such massive damage and almost immediately after the September 19th, 2017 earthquake, the Mexican Federal Government ordered the Secretary of Culture to "rebuild vaults, arches and bell towers...to return pyramids and murals to their original splendor...to reconstruct towns and cities. Looking future into the eyes, knowing who we are, honoring those who bequeathed us this rich and vast cultural legacy...in order to promote the cultural advancement of the nation."<sup>7</sup>

That the government responses and strategies for reconstruction included plans for the rebuilding of historic buildings almost immediately after the shock demonstrates the importance that cultural objects have for the official narratives of the nation. Consequently, I will focus primarily on landmark buildings and monuments because of their symbolic status and historic importance, and because of the impression that new ideas and concepts can engrave into the social imaginary when dealing with them.

Most general disaster-management plans are divided in three phases: emergency, recovery and reconstruction. Another important component, even previous to the catastrophe itself, is the prevention phase in which measures are taken to diminish the impact of future disasters. If we were to identify the role of historic preservation within these phases, the prevention tasks, such as the monitoring of soil conditions as well as the physical maintenance and the structural retrofitting of historic masonry and earthen materials proper to vernacular and historic architecture would definitely be an important part of preservation's functions.<sup>8</sup> Furthermore, historic preservation efforts can play an important role during the reconstruction phase, where visual documentation, structural assessment, enlisting, and cataloguing

of constructive damages as well as preventive bracing and the development of restoration projects should be included in the regional plans for rebuilding.<sup>9</sup>

However important these tasks are for the actual conservation and salvage of built historic monuments, buildings, and materials, it is not the purpose of these thesis to focus on such topics. This thesis aims to call for actions, or to point towards models of action, in which new ways to intervene in the damaged historic built environment can be proposed and investigated, with the goal of producing experimental tools with which to re-think alternatives to present-day traditional historic preservation, which too often only considers faithful aesthetical, formal, and material restorations of the damaged elements as the ultimate objective to achieve.

Nevertheless, if we were to comply with the aforementioned official vision of reconstruction, in which future and advancement seem to appeal to progressive moves, historic preservationists should be urged to think of historic buildings not only as legacy and tradition, but also as the promoters and recipients of new contemporary interventions. In accordance with Doreen Massey in *Places and their Pasts* "...traditions do not only exist in the past. They are actively built in the present also."<sup>10</sup> To view tradition as a nostalgic already complete concept impossible to keep transforming without losing its values creates a separation between past, present and future, something "from which we feel ourselves inexorably, inevitably distant."<sup>11</sup>

Within this panorama, it is my objective to demonstrate that earthquakes can act as catalysts to think preservation in different more dynamic ways, and that the same impulse can be used to transform other historic, spatial and social structures currently in place.

In his study on the historiography of catastrophes in Switzerland between 1500-2000, Christian Pfister, a pioneer of European historical climatology argues that "disasters should be seen as the salt of the modernization process"<sup>12</sup>, while Martin Körner concludes that "fires, earthquakes and floods are to be considered as catalyzers if not in fact moving forces of a certain modernization..."<sup>13</sup> What the words *modernization* and *process* mean to Pfister and Körner can be understood in many different ways and the manifold interpretations resulting can be contradictory, but what interests us is the potential for new paths that the idea suggests.

Other prominent social scientists, like Johan Galtung, a sociologist in peace studies, assures us that "in most cases, a catastrophe is needed to implement novel solutions".<sup>14</sup> For cultural theorist and philosopher Paul Virilio, "crucial political stimuli in the twentieth-first century will result from disaster rather than from revolution".<sup>15</sup>

Writing about the importance of narrative and ownership in heritage topics, David Lowenthal points towards an ever constant remaking of the past: "heritage like life history must above all be our very own. Only heritage that is clearly ours is worth having".<sup>16</sup> In this way, rebuilding what was left incomplete with new contemporary forms, uses, materials and techniques will allow us – the twenty-first-century inhabitants of Mexico and the trustees of its vast historic built environment – to appropriate and at the same time reshape and diversify narratives and values of historic importance.

According to Fekri Hassan, the knowledge accumulated from certain disastrous events that have happened in the past can become part of the way in which groups or societies think or behave in response to new catastrophes.<sup>17</sup> Memory, experience and knowledge have a direct relation to the coping strategies and reconstruction ideals that shape the ways in which the physical and social repercussions of cyclical, repetitive disasters are approached. By acknowledging the recurrent character of earthquakes in Mexico I want to link the occurrence of these phenomena with the "disaster knowledge" that they have engraved through time in the collective memory of the population. Pedagogy theorists distinguish between two types of learning: the behavioral and the cognitive. The cognitive approach argues that only individuals actually learn and that group learning is nothing but the sum of the individual learning of the members of that group. On the other hand, the behavioral approach supporters believe that learning also happens at the collective level, and that social groups and communities as well as administrative and governmental networks learn from previous events in a collaborative way.<sup>18</sup>

Meanwhile, Max Miller identifies two different types of learning, cumulative and fundamental. For him, cumulative learning uses the knowledge acquired until the present-day and puts it into practice when needed. Structural retrofitting of masonry or earthen materials – which intends to strengthen the structure of antique constructions with modern technologies – could be understood as cumulative learning. On the other hand, fundamental learning includes contemporary new

visions and understandings and applies them towards problem solving.<sup>19</sup> Would it be possible to take the cognitive (personal) and behavioral (communal) learnings that the past earthquakes have left and convert them to fundamental approaches of learning, later to be implemented as innovative intervention practices? Neither the cyclical nature of earthquakes nor the geological condition of the Mexican territory are going to change. The passage of time is just going to increase the extension and span of "the past" to be preserved, augmenting the number and complexity of the definition of what an historic building or context is. For these reasons, it is time to present new conceptual approaches that can enable preservation to come up with innovative processes and strategies – in the present as well as in the future – to intervene the built heritage when it has been damaged by a natural disaster.

In doing so, historic preservation will be transformed into dynamic preservation, one which reconciles tradition and history with contemporary active knowledge, allowing for the exploration of different directions that merge the past, the present and the future into new narratives. Back to Massey "one strategy is certainly to install our own version of these stories, of these relationships between past and present, which can lay an alternative basis for a (different) future: the strategy of writing a radical history".<sup>20</sup>

The opportunity to reconstruct taking advantage of the cyclical repetitive condition of earthquakes in the shacking grounds of the Mexican territory presents us with a huge range of possibilities, one after every event. The 2017 earthquakes should be only the starting point. The practices that tend to use historic preservation to freeze a particular view of a place or building in a certain moment in time while appealing to conflicting notions of heritage, tradition, identity and memory need to be questioned and visual proposals for novel possibilities have to be explored in order to transform historic preservation into a more dynamic and inclusive discipline.

The ever-present idea that lingers around architectural thought since time immemorial, that modernity and modern endeavors are better than traditional or historical pre-existing ones just because of their timely condition (i.e. that everything new is ipso facto better that its predecessor) results ridiculous and unfounded. However, only what is made in our present circumstances, that which responds to our needs, constraints, and desires, that which is made and produced with tools and technologies of our time and projected by our own contemporary critical thought can be ours. If just because of this, let us preserve while reshaping, let us restore by fabricating.

## **II.** The liminality of earthquakes: thresholds of change.

As I try to advance the way to think about common preservation practices that for the most part prevent or discourage any contemporary intervention in historic contexts – appealing to international standards, heritage interpretations, national identity discourses and nostalgic views of the past – I want to bring forward the concept of *liminality* as a tool of analysis from which to think differently about the relationship between earthquakes and damaged historic fabric.

As suggested by Bjorn Thomassen, human knowledge is enriched and motivated by the exchange of ideas and concepts across different disciplines, "going beyond their delimited empirical beginnings, and opening up new fields of enquiry and spaces of imagination."<sup>21</sup> Furthermore, in the words of Werner Heisenberg, Nobel Prize of Physics in 1932, "it is probably true quite generally that in the history of human thinking the most fruitful developments frequently take place at those points where two different lines of thought meet. These lines may have their roots in quite different religious traditions: hence if they actually meet, that is, if they are at least so much related to each other that a real interaction can take place, then one may hope that new and interesting developments may follow."<sup>22</sup>

In this way, and trying to explore a different tool to address Caitlin de Silvey's assertion that "we often do not have the cultural resources to respond thoughtfully, to imagine our own futures in a tangibly altered world"<sup>23</sup>, I will introduce the idea of liminality – first developed in the field of social anthropology – aiming to critically insert it into the contemporary discussions of intervention within historic contexts after these have been hit by natural disasters.

Originally introduced by Arnold Van Gennep (1873 - 1957) in 1909 and further elaborated by Victor Turner (1920-1983) as part of the "process approach" when studying rites of passage of tribal groups, the concept of liminality – form the Latin *limen,* literally threshold – understands the transitory stages through time that any

society experiences and that help shape its identities and communal structures. When describing these rites of passage and their role in the evolution of any society (or individual), van Gennep identified three categories: rites of separation, transition rites, and rites of incorporation, each with a middle stage in-between rites that he called the liminal period.<sup>24</sup>

In this way, overly simplified, "liminality is about how human beings, in their various social and cultural contexts, deal with change."<sup>25</sup> Furthermore, parallel to the concept of the liminal, of the threshold, of that in-between space or time period of uncertainty between stages, the concept of limit/boundary, and a new way to think about it and about its relation with the liminal, becomes immediately relevant to examine. Foucault's definition of "problematization", namely how to analyze the connection between the experience of crises and the innovations in thought<sup>26</sup>, and Thomassen's claim that dealing with change is a phenomenon that concerns both the very-personal and the ultimate-collective of experiences, will allow us to take liminality as an alternative viewpoint to identify, problematize and understand a wide range of transformations in the present world.

Since liminality "captures in-between situations and conditions characterized by the dislocation of established structures, the reversal of hierarchies, and uncertainty about the continuity of tradition and future outcomes,"<sup>27</sup> I will suggest that the cyclical nature of earthquakes in Mexico constantly creates opportunities to re-think, re-interpret and re-analyze – from a different perspective – structures and practices currently in place. As earthquakes represent traumatic experiences that transgress the normality of events, their consequences and repercussions, in regards to conservation, need to be studied in their own right.

Lived experiences transform human beings in different ways. They influence the way we understand the world, how we learn to see it. Experiences shape our emotions, our beliefs, our morals. By doing so, experiences affect not only the social circles we interact in but also the transmission of pre-established new ideas and lessons learned after every relevant event in our lives. These ideas and lessons, transmitted from group to group and from generation to generation get embedded in social learning, forming the structures and institutions of our societies. If we try to analyze these social processes through the prism of liminality, (i.e. the sudden irruptions, thresholds and boundary experiences in human life), we can think of the cultural dimension of human experience in creative ways to transform the

social world. As simply put by Agnes Horvath, "liminality is an opportunity to link experience-based and culture-oriented approaches to contemporary problems, and to undertake comparisons across historical periods."<sup>28</sup>

Going back to van Gennep, and in order to conciliate the anthropological aspects of the liminal theory with the sociological ones, Arpad Szakolczai suggests that the concept of "experience" has to be understood through the lenses of the rites of passage. By equating these, he identifies experience as possible only if one first leaves something behind, which presupposes a break with previous practices and routines. Szakolczai refers to Turner's example of the rite of initiation, in which young boys transition from childhood into adulthood, asserting that in order to successfully move from one stage to the other, the individual needs first to remove previous certainties and extend his identity to convert from a child into and adult.

This understanding of change, rooted in the core of human experience, is extrapolated by renowned anthropologists and social theorists out of the individual scale and of the ritual structure, allowing them to use the concept of liminality as a tool with which to think and interpret events and experiences that, suddenly and deeply, transform entire groups and societies in the contemporary world. After traumatic events, such as a natural disaster, when people need to make sense of material losses and challenges to their cultural and social environment,

Thus, extending the concept of liminality to theorize the escalation of crises of the present and following Turner's own words, in which he referred to liminality as any "betwixt and between" situation or object, Thomassen outlines the types of space and time scales with which to explain liminality. He identifies three categories of subject, three temporal dimensions and three spatial dimensions of liminality <sup>29</sup> as shown in Table 1.

Subject experiences	Temporal dimensions	Spatial dimensions
Single individuals Social groups Whole societies/ populations	Moments Periods Epochs	Specific thresholds Areas or zones Larger geographies

Table 1. Types of liminality



Image 02. Cyclical liminality diagram.

In this way, I will take the Mexican population, the aftermath of the September 2017 earthquakes and some historic monuments in Morelos damaged by them as the respective subject, temporal and spatial dimensions with which to explore the concept of liminality. As already suggested by the example of the initiation ritual, any real-life situation understood, in the liminal sense, as an "experience" starts with the weakening and eventual suspension of the ordinary taken for granted structures.<sup>30</sup>

Just as Naomi Klein has coined the term "disaster capitalism" to argue that catastrophes are often used by capitalist corporations to disturb pre-established economic orders, and as Vivian Choi uses the term "disaster nationalism" to explain the political implications, power dynamics, and population and territorial management resulting from the government monopoly over post-disaster reconstruction strategies,<sup>31</sup> I want to put forward the idea of "disaster preservationism" to refer to the anachronistic nostalgic ways in which common preservation practices, by misunderstanding concepts of identity, heritage, authenticity and memory, and by referencing to established regulations, charters and recommendations that do not contemplate the sudden destruction post-disaster, represent these type of "ordinary taken for granted structures" in need to be problematized.

To follow the argument, I will focus now on the concept of transformation, as it is a medullary aspect of both the liminal and the core of the entire thesis. According to Szakolczai, "a transformative event, as a technical term in sociological analysis, is definable as something that happens in real life, whether for an individual, group or entire civilization. It suddenly questions and even cancels previously taken-for-granted centainties, forcing the people swept up in this storm to reflect on their experiences, even their entire lives, and potentially change not only their conduct in life but their identity. The degree and direction of the change depends on several factors: the surviving fragments of previous identities, the existence of external reference points that remain more or less intact, and the presence or absence of new models, forms or measures."<sup>32</sup>

In this way, if destructive earthquakes are approached as catalysts for change (see Pfister and Körner in chapter 1 of this thesis), the transformative potential inherent to them creates a liminal situation, in the sense that their disruption can be understood as an opportunity to lift the previous limits established by the common practices of historic preservation. For Thomassen, liminality is also "the experience of finding oneself at a boundary or in an in-between position, either spatially or temporally".<sup>33</sup> Under the assumption that the experience itself (i.e. the earthquake) and the interpretation of that same experience (i.e. the assessment of the damage left after the event in historic contexts) influence the behavioral and cognitive learning of the individuals and groups affected, thinking natural catastrophes and historic buildings with liminality can contribute, in creative ways, to the reinvention of practices, institutions, and legal structures that are worn down and in need of innovation.

Results relevant now to differentiate between liminal time periods (such as the earthquakes aftermath) and spatial liminality, as the case studies to be used in the following chapters can easily respond to it. According to Szakolczai, "in any situation with strongly marked centers and boundary lines, the regions from the center and close to the border are marginal – irrelevant, backward, local. However, when emphasis shifts to the relationship between two centers, marginal zones become liminal by being situated in between two centers, thus mediating them. They may eventually even become the new center."<sup>34</sup> By implying the possibility that the marginal, the liminal, and the central may coincide, we can start thinking about how the damaged historic constructions, the narratives associated with them, the public and private uses they have housed until recently and the different set of values ascribed to them can be reassessed and ultimately transformed.

Bernd Giese says taths spaces of ambivalence and hybridity are fundamental to sustaining social reality. the "neither nor" and the "as well as" and the inbetweenness associated with them are essential for the construction of culture.<sup>35</sup> As the liminal must at the same time be considered the origin of structure, the point of departure for the birth of new forms of cultural and social life, can the damaged historic buildings themselves be understood as architectural thresholds, liminal spaces, autonomous in-betweens worth of being approached not as ruins, not as national identity depositories, not as historic landmarks, but as hybrids with potential for new beginnings with no definite pre-established outcome?

Finally, liminality is in close relationship not only with notions of change, time, space, and tradition, but also with the heart of community construction. As liminality is in the core of the experience – both at the groupal and the individual scale of each of its members – it cannot exist without community engagement. Since the

mere overcoming from the tragic experience and the reappropriation of the social structures and institutions has to be done by the same people being challenged by it, present day crises can only be is understood to be liminal from a bottom-up perspective of change.

## **Preservation in Mexico: nation, history, and culture.**

In order to comprehend the legal frameworks behind historic preservation that should be questioned in Mexico through the lense of liminality, I will briefly explain the historical relation that has existed between cultural heritage and the idea of Mexico as nation. As explained by Rem Koolhaas, the appearance of the first preservation law appeared in 1790 just after the end of the French Revolution, right in the moment "when the past was basically being prepared for the rubbish dump."<sup>36</sup> Preservation is political, and as such, historic buildings are preserved following certain federal laws and policies because they are the physical tangible actors that represent the political and cultural narratives needed for the construction and affirmation of the State, and in this case, the Mexican State.

Just as showed by Bolfy Cottom in his comprehensive study about the Mexican legislation and policy making of national heritage throughout the independent years (i.e. following the War of Independence 1810-1821), there is a direct relation between the establishment of modern independent Mexico as a country, the concept of national identity, and the selection of historic buildings as part of a national historic heritage narrative to be preserved.

To analize the broad concepts of nation, identity, and national identity exceeds the intentions of this thesis. However, and following the Gramscian idea that ideologies do not exist on themselves as ethereal entities but rather become expressed in reality, I will follow Cottom to understand national identity as a dialectic social phenomenon which is both a human invention and also a social construct that shapes and influences members of that particular society. According to Luis Villoro, (1922-2014), a nation could be defined as a continuity in time and space, with a defined territory and with a particular notion of a common origin. For him, to be part of a nation is to adopt a lifestyle, to incorporate into a culture, and to appropriate a certain collective history. The integration to a national identity surpasses race, blood-ties, place-of-birth and political views.<sup>37</sup>

Here it is important to differentiate between two dissimilar yet overlapping ideas of "nation", the cultural nation and the political nation, both of which are to be understood as distinct from the State, since the concept of "nation" is first and foremost a sociological one. According to Cottom, the cultural nation is that which is not invented but built through time around cultural objective aspects, such as history, social structures, language, traditions, economy, etc., and cultural subjective aspects, such as conscience, loyalty, behaviour, sentiments, and social will. Furthermore, the political nation would be the political project that serves from that same cultural nation in order to find a cohesive historical, social and cultural logic to confront other political structures, which in the Latin American context caused the anti-colonialist movements of the nineteenth century and the subsequent independence revolutions across the continent. Finally, the State would be the project that, having evolved from the organizational core of the political nation, utilizes certain particular aspects of both the cultural and the political nations - whose foundations lay in the concept of unity in diversity - in order to consolidate itself and preserve power over a definite population and a definite territory. Moreover, the State is composed of four elements: the people, the territory, the government and the sovereignty. <sup>38</sup>

In this way, the nation does not limit itself to the territorial and political boundaries established by the State. However, the cultural traditions and social constructions proper to the cultural nation are constantly being oriented by the groups of power to fit the dominant narrative and the nationalist political objectives of the State. These objectives construct the ideals for national models, which are transmitted to society by cultural, educational and political agencies. As the narrative of the State is always predominant and particular, there is a permanent tension in defining the ultimate national project: there will always be a dominant narrative/project and other alternate ones.<sup>39</sup>

Mexican theorist Gilberto Gimenez describes the nation as "an enigmatic form of social classification, a collective transhistorical entity which substance is constituted by myths – both foundational and disruptive – and by a multiplicity of symbols".<sup>40</sup> It is from these symbols, and from the interpretation and appropriation of them, that national identity is defined. The cultural heritage, and the historic buildings comprising that heritage thus constitute the link between the past and the present of the nation, and it is in this link that history plays an important role in the construction of the political project.

However, and following the extensive critique of David Lowenthal in his scholarly work about the past and its different uses, I will sustain that the unilateral national narrative often interprets the history and the mythical aspects of it in particular ways to benefit a certain elitist project. Consequently, the interest of the Mexican State in preserving those narratives translates into the preservation of historic monuments in two different ways. On the one hand, the development of legal frameworks intended to protect the built historic fabric, and on the other, the establishment of cultural and educational agencies to implement those policies.<sup>41</sup>

Parallel to the positivist spirit in vogue during the nineteenth century and founded over the idea that civilized nations should take care and preserve their monuments – as they are the ultimate and true witnesses of the nation's past – the first law for the conservation of archaeological relics appeared in Mexico in 1897.<sup>42</sup> The so called *Ley sobre Monumentos Arqueológicos* regulated archeological excavations and prohibited the export of archeological relics abroad the Mexican territory. That the first antecedent of a preservation law in Mexico dealt exclusively with precolumbian antiquities and monuments is easily explained when paralleled to the very construction of the idea of a Mexican nation, which initially saw its foundational genesis not in the colonial but exclusively in the pre-hispanic cultures.

In this way, the 1897 law expressed: "where there are not literary monuments, the archeological ones are the only vestige of the past and therefore the importance and transcendence of their preservation; where there are literary monuments, the archeological ones correct the errors of historians, animating them to find the historical truth".<sup>43</sup>

It was not until 1930 and later in 1934 with the *Ley sobre Protección y Conservación de Monumentos Arqueológicos e Históricos, Poblaciones Típicas y Lugares de Belleza Natural* that the legal framework extended to include the historic monuments erected during the colonial and independent years as well as natural landscapes and indigenous cultural manifestations. This particular law, of nationalist roots, was the first comprehensive effort to systematize a national register that brought together all the different records and landmarks that had been locally issued until then.<sup>44</sup>

Furthermore, the same law was amended in order to create the Instituto Nacional de Antropología e Historia (INAH) in 1939 and the Instituto Nacional de Bellas Artes



Image 03. Historic timeline of preservation laws in Mexico.

(INBA) in 1946, cultural institutions in charge of the protection of the archaeological, historic and artistic monuments as well as natural landscapes and indigenous places that were landmarked by the federal or state governments as culturally relevant. The 1934 law was also the first effort to preserve not only the isolated architectural pieces but also the historic fabric around them, as any intervention to be built inside or in the vicinity of historic areas that was to be financed with federal resources or that portrayed formal pre-hispanic or colonial motives was to be reviewed and approved by INAH.<sup>45</sup>

The next modification to the legal framework came during the 1966-1970 and culminated with the *Ley Federal del Patrimonio Cultural Nacional* of 1970. This law incorporated constitutional arrangements that enabled the State to exercise ultimate dominion over the monuments landmarked as cultural heritage of the nation. If understood to be of public interest, the preservation of cultural heritage monuments was to be implemented and executed by the State, which enable it to impose – when needed – certain actions and limitations to private property. It was also during this period that the first links between cultural heritage and touristic value were identified, as legislators proposed that "apart from the irreplaceable cultural value, historic monuments also represented a source of wealth for the Mexican nation, as they constantly attract travelers from around the world who came for their contemplation."<sup>46</sup>

Finally, the *Ley Federal sobre Monumentos y Zonas Arqueológicos, Artísticos e Históricos,* passed in 1972 and in effect until today, was an initiative of the executive branch of government (President Luis Echeverría) which divided the general concept of cultural heritage into three distinct tiers. First, the archaeological monuments, or any building or movable property, product of the cultures that preceded the hispanic one, including human, animal and vegetal remains associated with them. Second, historical monuments, or those built between the sixteenth and nineteenth centuries and that were directly related to the history of the country, and third, artistic monuments, or those built or created during the twentieth century and that showed any relevant artistic appeal for the cultural advancement of the nation.

Furthermore, the 1972 law, updated in 1984 and later in 1986, stated that, as it was impossible to determine which cultural assets where to be considered heritage and which were not, any archeological site, building, relic or landscape defined as such was to be automatically landmarked, by law, as national cultural heritage.

Moreover, the historic and artistic monuments were to be considered as such only after their declaration was passed by the federal or local government and signed by the executive branch.

The biggest difference between the 1972 law and the previous ones was the inclusion of the concept of "zonas de monumentos". The designation of this "monumental zones" have, since the very beginning, been a particular prerogative of the executive branch and are intended to protect the areas where two or more historic monuments are located in order to preserve the architectural and urban properties of city centers. It is important to note that the previously referred Mexican preservation laws predated even the first Athens charter of 1931, and that the Federal Law for Arqueologic, Historic & Artistic Zones and Monuments was already passed before the first World Heritage Sites listings of Quito and Cracow in 1978.

The previous review of the legal frameworks that have been enforced in Mexico throughout the twentieth century show that buildings get historicized, interpreted and identified as monuments of historic value because they are associated with a certain narrative that helps construct a past from where the idea of a national cultural heritage emerges. However, the aforementioned regulations, including the current *Ley Federal sobre Monumentos y Zonas Arqueológicos, Artísticos e Históricos,* focus more on the legal aspects of registration, property rights, tax incentives, and fiscal obligations of both public institutions and private owners of historic property than on how to deal with the material objects or the heritage values associated with them. Little or no implication on the urban and architectural parameters to preserve, restore, intervene or reconstruct them is included. In this way, international standards, such as the Charter of Venice of 1964, subsequent worldwide accepted recommendations (UNESCO, ICCROM, ICOMOS) and other theoretical and aesthetic practices get implemented.

It is not my point in this thesis to directly critique these and other ways of conservation of the historic fabric during typical circumstances, as the historic, aesthetic, cultural and social debates on how, when, for who and for what extent to preserve can be infinite. I am not interested either in critiquing the way in which certain historic buildings are considered worthy of the landmark status depending on the State or elitist narratives that benefit from their preservation and the cultural and political implications involved, nor how federal and local regulations However, it is my goal to investigate how this preservation practices – whether plausible or questionable – need to be nevertheless analyzed, adjusted and ultimately altered after a natural catastrophe, such as the recurring earthquakes in Mexico, hit, partially damage and/or severely destroy historic landmarks. Picking up on Cottom, Villoro, Jimenez and Lowenthal, if certain mythical/historical narratives are the representation of the cultural essence of the nation – here we could argue that there are a multiplicity of Mexicos and not just one Mexican nation<sup>47</sup> – and the built historic environment serves as its physical manifestation, the aftermath of earthquakes and their impact in the historic cultural heritage can be seen as opportunities to re-establish the connection and interpretations between the past, the present and the future, both in the physical and conceptual realms of culture.

Consequently, David L. Miller defines the particularities of a nation not only as having to do with a physical entity/territory, or with communal modes of behavior, or with a group of beliefs concerning official or unofficial pasts, but first and foremost with common and communal ways of envisioning and seeing the future.<sup>48</sup>

That just as there are many pasts and interpretations of those pasts there are also many futures and interpretations of those futures is an obvious statement. However, borrowing from the concept of "anticipatory history",<sup>49</sup> this thesis does not attempt to construct a singular, universal historical narrative of what those future aspirations might be or look like in the physical world, but rather to start a conversation that can be later transformed into theoretical, practical, and/or legal frameworks with which to approach the topic of historic intervention in progressive non-nostalgic ways, sensible to the different narratives, histories, geographies, echologies, population groups and social constructs around historic fabric.

Thus, the new narrative strategies and conceptual tools will enable the historic buildings to be either restored, preserved, rebuilt, demolished or abandoned according to inclusive visions and interpretations of what architectural and urban interventions should be. As put by William Cronon "our ability to project ourselves into the future, imagining alternative lives that lead us to set new goals and work toward new ends, is merely the forward expression of the experience of change we have learned from reflection on the past."<sup>50</sup>

## **Colonial heritage: a critique of preservation narratives.**

During the September 2017 earthquakes, the Secretary of Culture reported that 1,821 historic buildings were damaged, 20% of them being severely destroyed.<sup>51</sup> This overview – in the words of Arturo Balandrano, National Coordinator of Historic Monuments of the Instituto Nacional de Antropología e Historia (INAH) – is "unprecedented in the history of historic preservation in the country", and thus represents a major challenge for the cultural institutions responsible for the protection and preservation of the built historic environment.

The great majority of these 1,821 buildings –over 95% of the total<sup>52</sup>– are listed as "Historic Monuments", following the cataloguing parameters of the 1972 *Ley Federal sobre Monumentos y Zonas Arqueológicos, Artísticos e Históricos*, meaning that they appeared between the 16th and 19th centuries and that they were predominantly built during colonial times. In this way, and because their physical and symbolic preeminence, I will focus on the 16th century convents located in the present day state of Morelos as a way to discuss the way in which established historical narratives, national identity associations, and preservation interpretations can be questioned after historic fabric gets damaged by an earthquake. To do so, I will summarize the material physicality, the historical context, and the subjective meanings of these monuments, aiming to prove that, when thinking with liminality, the physical-historicist restoration of historic architectures and significations implies also the conservation of other social, political and spatial arrangements that are not always necessarily worth preserving.

Following the detailed studies of George Kubler, Manuel Toussaint and Roberto Meli, it is important to situate the construction of the 16th century monasteries in a broader sociopolitical and historical terrain in order to understand them through different critical lenses and layers. The military conquest of the territory known today as Mexico –which had its pinnacle during the definite defeat of the Aztec Empire in 1524– was followed with what Rober Ricard called "the spiritual conquest of the New World."<sup>53</sup>

This other colonization was initiated by the three mendicant orders: the Franciscans, who first arrived in 1524, followed by the Dominicans in 1526 and lastly the Augustines in 1533, all of which built convents in present-day Morelos. Though a detailed, chronologic description of these period in history exceeds the limits of this work, it is relevant to underline and not to forget the significant role that the Catholic Church, and specifically the mendicant orders, had in shaping the idiosyncratic, economic, social and spatial relations of the territory. Though the evangelization of the native populations served as the moral justification that the Spanish crown gave for the exploitation of the material resources of the American continent, the "spiritual" adjective on Ricard's phrase does not change the obvious fact that it was still a "conquest", and as such, tightly bound to political and economic interests that were replicated both in the urbanism and architectures that now are considered to be historic.

Parallel to the spiritual evangelization of the local population, the land and property distributions that existed during the 16th century made possible the construction of the huge convents that survive until today. The political-economical model of "encomienda", which Kubler describes as the "gradual dissolution, or forced dispersion, of the land rights of the indians"54 allowed for the "encomenderos" (a social class of armed Spaniards who directly benefited from the control of indigenous labor and not necessarily from production or extraction activities) to gain control of huge portions of territory and of a big number of indian workers. Of progressive and humanistic ideals, the Mendicant Orders initially opposed –during 1530-35 – to the encomienda system, as they saw their divine obligation not only to convert and educate the indians but also to protect them against the exploitation and injustice of the conquistadores. However, according to Kubler, around 1544, and parallel to the Crown's active legislation to transform the encomiendas into corregimientos - a more imperial structure of tribute in which land, resources and labor were administered by royal officials working for the interests of the central government - the three Orders changed their political position and became supportive of the encomienda system, even making alliances with the most powerful encomenderos of various territories.

The reasons for this change are understood when examining the political struggle that the Mendicant Orders had against the secular clergy (battle that they will eventually lose during the following centuries), and also when realizing that their original religious intentions –i.e. the establishment of an utopian republic of indians,

completely independent from the Spanish settlements and cooperatively organized around a theocratic system– was more easily achievable within a medieval/feudal regime, such as the encomienda system, than with any other of the subsequent land and property arrangements implemented during the following years.

In this way, the majority of the first convents were built in populations called "pueblos de indios" that were distant from urban centers, the so called "pueblos de españoles", and that were promoted by the Crown for the control of both the demographic and material resources.

This agglomeration of labor permitted both a better collection of tribute and also the construction of the huge monasteries. Standing out as disproportioned when compared today with the small towns in which they are located –small when considering their population and economic relevance– I am trying to clarify that just as "without encomienda there was no colonization"<sup>55</sup>, the convents that are now interpreted as national historic monuments, some of them even of "universal value", would not have been possibly built outside of these particular socio-spatial arrangements of control, exploitation and abuse.

Though I am not trying to diminish or question their architectural value as representative samples of a particular historic and aesthetical design style proper to a very specific time and territory –the 16th century monasteries are considered by Toussaint and Kubler to be the most representative of all the Novo Hispanic architectures– the damaged of the convents after the 2017 earthquake is an opportunity to re-examine and re-think the narratives of the historical conditions that made the physical artifacts possible. What stories are we privileging when rebuilding a certain historic monument? Whose heritage is being told? What role did the political and ecclesiastical institutions have played, play and will continue to play in relation to these narratives? Which of these stories are transmitted to the community and why?

The conservation, restoration or rebuilding of historic architectures, when thinking with liminality, should be approached not only in terms of the mere physical, but also of the profound historic conditions and backgrounds in which they were produced. In words of David Lowenthal: "preservation has deepened our knowledge of the past but dampened creative use of it. Specialists learn more than ever about our... traditions, but most people now lack an informed appreciation of them."<sup>56</sup>

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"the majority of colonial churches we admire today result from various attempts, reconstructions and extensions...due to the strength of earthquakes that periodically affect all buildings, forcing us to modify them sometimes in their totality."

Gonzalez Pozo

Image 04. Schematic diagram of the change of historic buildings in time.

The fact that the construction of convents in the "pueblos de indios" was exclusively done by the indigenous populations and imposed by their "spiritual" conquerors forced an assimilation process between parts to happen. These assimilations meant that the indigenous workers had to learn the construction tools, technologies and techniques used by the Spaniards but also that the Spaniards needed to get familiar with the materials and geologic particularities of the territory, namely the frequency and strength with which earthquakes happened in Mexico.

By comparing the history of seismological activity in Mexico with the one in the Iberian Peninsula, it is evident that the experience the Mendicants and conquerors could have had in construction with relation to earthquakes was very limited, if not completely absent.

However, the Spanish builders did ignore, from the most part, the structural and typological characteristics of the prehispanic buildings they have destroyed, probably considering the monolithic and massive pyramidal forms to be more related to cultural meanings than to building resistance, associating their structural proportions to technological inferiority.<sup>57</sup>

In this way, the structural knowledge gradually acquired by indigenous populations through centuries of experience with shaky grounds, (i.e the low height of interior spaces, the use of light materials for the roof, the use of stone as decorative protection for monolithic embankments and the pyramidal robustness of the forms) was quickly replaced with new untested architectural elements. This decision had repercussions that would eventually affect the endurance and permanence of almost half of the Mendicant building production: according to Roberto Meli, of the initial 300 convents built in the Mexican territory, only around 150 are standing today.

A closer look into the seismic areas of Mexico underscores this point. The country is divided into four seismic danger zones, the Pacific coast territories of Michoacan, Guerrero and Oaxaca (where the majority of earthquakes have struck historically) lie inside the most vulnerable of the four. It is not surprising that in this specific geography a great number of the original buildings have disappeared, others were replaced with architectures of more recent centuries and the ones that still survive have been reconstructed and modified throughout the years. According to Meli, specifically in Oaxaca, only the convents located farther than 200km off the Pacific

#### coast survive.58

However, it is important to note that the construction of religious buildings in stone and brick was something that only appeared after the so-called "provisional architectures", buildings of adobe walls and wooden roofs which constituted the first precedent for the convents that are now listed as landmarks. These buildings had reduced spans between walls, no bell towers, and light roofs. The second Viceroy Luis de Velasco wrote to King Felipe II in 1557: "Earthquakes are ordinary and the buildings with high vaults are at risk, as some vaults have partially collapsed, and have to be later covered with wooden roofs". The contradiction is evident: perhaps for economic reasons --it was cheaper and faster to build in adobe and wood than in stone and brick-- the first monumental buildings were lighter, ephemeral and thus safer. Later on, after enough labor and funds were secured, with a more risky architectural will and probably because of symbolic aims associated with permanence, strength, durability and weight, the "final" convents of vaults and domes were built with heavier materials that are particularly vulnerable to the telluric movements on this area of Mexico.

Roberto Meli explains that patterns of structural damage are repeated after each earthquake, meaning that their repetitive nature leaves a mark through the constructive history of the buildings. To cite an example, the Cathedral of Oaxaca can illustrate the physical modifications that historic buildings have gone over time in order to counteract and resist earthquakes. Oaxaca's Cathedral was built initially in 1544 and suffered damages in 1553, 1575 and 1581, then again in 1603, 1650, 1680, 1694, 1696, and also in 1714, when the final version that stands today was finally beginning to be rebuilt, only to see its vaults and domes destroyed in 1870.

Along this period, the original building's structural elements and architectural proportions gradually changed: the height of the nave was reduced, the bell towers were shortened, the buttresses augmented their width and in general the building's aesthetics became more voluminous in order to make the cathedral more robust and stable. According to Gonzalez Pozo: "the majority of colonial churches we admire today result from various attempts, reconstructions and extensions...due to the strength of earthquakes that periodically affect all buildings, forcing us to modify them sometimes in their totality."<sup>59</sup>

Acknowledging that historic buildings have been involved in a continuous process of modification that encompasses hundreds of years and various stages of transformation will enable us to realize that rebuilding or restoring them identically to a certain period of time, to a certain arbitrary past, is misleading and absurd. Before the idea of national cultural heritage was established and prior to the appearance of current preservation regulations, historic monuments underwent physical and material changes that responded to their immediate circumstances without necessarily losing value or aesthetic appeal. Why then, should we now try to restore the damages by mimicking the styles, forms, materials and circumstances of the past? And even if we were compelled to do so, which past should we pick? Should we go back to the 1544 starting point? Should we pick the 1603 model, the 1650? Or should we accept the 1870 version as the "definite" because it is the last one and the only one we have documents from where to copy? How far should we go in our search for "authenticity"?

To strengthen my point about the folly of restoration, the defined set of structural damages are in direct relation to the physical, material, formal, geometric and constructive characteristics of 16th century buildings. The tilting of walls, the loss in the curvature of vaults, the gradual dislocation of bell towers, the degradation of structural elements and materials, etc., all of these result from the behaviour proper to masonry structures, contributing to the gradual deformation of geometry and destabilizing the buildings, making them prone to future collapses.<sup>60</sup> So when a natural catastrophe damages them to the point of collapse, why should we rebuild them as they were only to see them fall down again?

Under the idea that the historic monuments that have survived until today are part of the national cultural heritage, and as such, should be protected and preserved to their "original" conditions for the enjoyment of future generations (idea already questioned in this work), two recent earthquakes, particularly harmful to historic fabric, and the restoration efforts after them, took two different, yet equally faulty, approaches to the reconstruction of the built environment.

After the 1973 earthquake in Ciudad Serdan preservationists used a vast number of cement and concrete elements, as well as steel structures, in order to repair the damages. The new structural elements feigned the formal aesthetics of the "original" ones, making completely inauthentic and fake both the intervention and the parts of the building that had survived. Furthermore, when new earthquakes hit in 1980 and in 1999, the structural behavior of the concrete and steel was disastrous, and chemical incompatibilities between 16th century masonry and 20th

#### century cement appeared.

For these reasons, and influenced by universally accepted guidelines (such as the Venice Charter of 1964 or the ISCARSAH<sup>61</sup> document of 2000) the strategy after the 1999 earthquake approached the problematique from a different standpoint. By interpreting that the historic and cultural value of the building includes also its original structural system, and considering that altering it affects the authenticity of the monument itself, preservationists opted for the reconstruction of damaged elements with traditional materials and traditional techniques, ignoring the obvious. First, that "these procedures are incompatible with the requisist of adequate structural safety"<sup>62</sup> and second that, being built in completely different times, with different resources and circumstances, by different people and different tools, any type of nostalgic restoration, is in itself, basically unauthentic.

The destruction left by the 2017 earthquakes, in which both of the "lessons not learned" from the previous catastrophes where revealed, urges for a different approach to preservation, one that does not repeat the same mistakes again, and that realizes that change is an inherent part of history. And going a step further away from the mere architectural values: should we not use the damage left to historic structures to re-evaluate the meanings, uses, users, beneficiaries, structures of power and spatial dynamics that gravitate and that have gravitated around these monuments and that have prevented the advancement of the towns around them?

As I have previously outlined, historic buildings have also an immaterial essence that, if not as evident as walls, arches and domes, constitutes an important component of its cultural and historic value and is directly related to its origins and ultimate meaning. As I will try to convey in the following chapter, new visions and interpretations can help historic buildings to become a real more inclusive melting pot from where to think the past, the present and the future in new ways.

## Chapter V. Critical intervention: fragments and palimpsests.

In his comprehensive revision of conservation history, Jukka Jokilehto asserts that the association of buildings of the past with particular heritage narratives and the subsequent restoration and conservation regulations to protect them have always been closely related to the evolution of modernity.<sup>63</sup>

As pointed out by Frederick Cooper, the word modernity is used by many scholars to talk about the past, the present and the future and the conflicts across them. Though defining the concept of modernity and its multiple interpretations is not the intention of this work, we will understand it as an unfolding process over time, mainly a continuing project central to the West, which had its genesis in capitalism and imperialism, and thus in direct relation to narratives of European colonization.<sup>64</sup>

When discussing the relation between conservation and modernity, Jokilehto and other scholars, like Ignasi de Sola Morales, point out to the Renaissance as the modern turning-point from where antique pre-existing structures began to be seen as valuable historic documents worth preserving. They also suggest the Age of Enlightenment as the time from where protection of cultural heritage became a matter of international concern. Furthermore, Rem Koolhaas asserts that in 1877, right in the middle of the Industrial Revolution –"the most intense moment of civilization" – the idea of "what to keep" in relation to the multiple technological inventions that were emerging caused propositions of historic preservation to appear in England.<sup>65</sup> Finally, for Michael Guggenheim, processes of historization, temporalization, and an increasing interest in monument protection are all common to the modern project.<sup>66</sup> To put it simply, and even though at first glance historic preservation of modernity.

In this way, in pure architectural terms, de Sola Morales asserts that the first moment in which an historiographic approach (i.e. an historic conscience) appears in relation to pre-existing structures is in the work of Leon Battista Alberti (1404-72)

in the Tempio Malatestiano in Rimini. According to Sola Morales, the objective of the early Renaissance conservation practices was to "unify the totality of the space as the scenario for the human life". This critical approach intended to put together the different pluralities of the ancient and medieval city, and in the case of the Tempio, developed an "absolutely hermetic" project that spoke a different critical language with the ultimate goal of homogenizing the architectural and urban spaces of the past, superimposing the classicist project over all the previous ones.

With the advent of the Age of Enlightenment and with the new approaches to cultural history proposed by Giovanni Battista Vico and Johann Gottfried Herder, a new concept of historicity directly influenced the practice of conservation. The development of Vico's theories directly opposed the absolutist Renaissance project and recognized both "cultural pluralism and the recognition of different cultures and values not necessarily commensurate."<sup>67</sup> Furthermore, towards the end of the nineteenth century, the development of modern science and technology, as well as the influence of positivist philosophy and new Historicism views helped to establish the idea of "national monuments", namely that historic buildings of political and social importance were to be understood as characteristic and representative of national ideals, and thus worth of the most perfect restoration possible. This interpretations were parallel to the emergence of the modern notion of nation-state that arose during the 1800s.

As explained in Chapter 3, the politics of historic preservation and their ties to the construction and stabilization of national narratives are very important, almost determinant, to understand historic preservation's natural reticence against change. According to Jorge Otero-Pailos, the word "preservation" has become to define the subjugation and legally regulation of contemporary actions that privilege the past over the present, generally standing in the way of anything new in the name of governmental powers, and thus preventing any alternative to the status quo from emerging.<sup>68</sup>

Because of this, it is easy to recognize the motivations behind the institutional and official efforts to restore the historic buildings that were damaged after the 2017 earthquakes exactly as they stood before the disaster. (A precedent of this particular position on preservation and the interest of the federal institutions to restore asfound appears in *Memoria FONDEN 2000*, a catalogue of the methodologies and practices implemented by INAH to rebuild damaged historic buildings after the

1999 earthquakes.)<sup>69</sup> Since the endurance of the State is in direct relation to the endurance of its built heritage, and because heritage belongs to whom control its assets,<sup>70</sup> a critical evaluation of the tangible and intangible constituents around historic fabric can serve as the necessary link to start conversations of change, not only in mere architectural or urban aspects related to formal or aesthetical concerns, but also in the political interpretations of historic, socio-economic, and cultural narratives that should be positively affected by a structural liminal transformation of the status quo.

Paraphrasing Otero Pailos, the proposition of this thesis is not trying to find a unique, universal, one-size-fit-all solution that speaks for culture when dealing with damaged historic buildings, but rather to solicit a cultural response that, taking into account other alternatives to material preservation/restoration, allows for new theoretical approaches that can impact institutional, official and community responses in benefit of an ever-changing and adaptive relation between historic fabric and post-disaster reconstruction.

It is important to note that as a product of modernity, the preservation of historic buildings and historic monuments has been associated, since its very beginning, with narratives of risk. These narratives have put the permanence of the building's materiality, monumentality and meaning as elements in urge of being protected against external agents that damage and ultimately destroy their inherent value.<sup>71</sup> In a physical context such as central and southern Mexico, where every two years an important earthquake hits and every fifteen years a particularly destructive one affects historic fabric, the first step for a distinct interpretation of preservation could contemplate a shift in the narratives between natural disasters and monuments.

This would require not to consider monuments and historic structures as something to safeguard or shield against the inclemency of life–as valuable already finished jewels in the verge of constant threat–but rather as objectual processes that, because of their own complex long standing relationship with the passage of time and because of their existence in a context of continuous disaster unpredictability, can and should be valued as historical palimpsests where a certain historical layering of change should be underscored and cherished. This cultural shift, this liminal reversal of attitude towards historic fabric could influence a change in the legal frameworks and established guidelines that nowadays dictate the restoration of monuments, also impacting the political institutions that are in charge of them.



Image 05. Flapping herons. Étienne-Jules Marey, 1886. Chronophotograph. Source: Zeno.org

However, because of the aforementioned tight connections between preservation and politics (Otero Pailos refers to the universal preservation dogmas, such as the Venice Charter, as evidence of the top down authority of governmental and intergovernmental bureaucracies in charge), any liminal change that can transform preservation/restoration into critical intervention should and would only be initiated from bottom-up narratives and initiatives.

In order for these potential narratives and initiatives to be supported with a solid theoretical background, we need to understand that historic buildings and monuments—as material components of heritage—are constituted by both tangible and intangible aspects that change differently over time. Ilan Vit-Suzan identifies these two components as 1. concrete entities and 2.abstract entities, associating the form of the building, its materiality and architectural elements to the former and the messages, meanings and mental interpretations to the latter. While the concrete entities are frequently associated with permanence (due to material practices such as preservation or restoration), the abstract ones are more elusive and fluid. In this way, Vit-Suzan asks: how can we treat these different yet complementary notions of heritage that possess different rhythms of change?<sup>72</sup>

If we follow Vit-Suzan in his understanding of buildings as passive vehicles for the active operations of the mind, as the mere physical forms serving as containers for the intellectual and cultural content that gets transmitted through time, it is easy to see that the physical aspects of heritage (historic buildings) are finite and in need of intangible components–such as interpretations, beliefs, expectations, cultural atmospheres and intellectual views–whose spectrum of change not only parallels but even exceeds the physical and material mutations that weathering and natural catastrophes can inflict to the architectural pieces in time.<sup>73</sup>

This dual definition of monuments, (i.e. mere physical objects on the one hand and containers of collective meanings and values on the other) shows that, even though restoration as-found (i.e to make damaged buildings look as they were before the disaster) may appear as the reasonable thing to do, preserving the monumental and historic value through mere material restoration prevents the historic buildings and its narratives to be understood as processes explore and implement alternative outcomes.

A holistic interpretation of historic buildings-one that includes the social interactions,

intellectual speculations, and political actions that have transformed them across different times–can then allow us to affirm that the permanence of historic fabric is not only a contradictory concept but ultimately a fantasy that cannot engage either with the historical layering that has already happened through the past history of the building nor with any social, political, civic and even economic conditions of the present. In the words of David Lowenthal, the past –and here I point to the architectural forms and materials, the cultural meanings and even the users and uses of historic buildings– cannot be stable or segregated: "whether we restore or refrain from restoring, we cannot avoid reshaping the past...Preservation itself reveals that permanence is an illusion."<sup>74</sup> This new holistic approach will permit us, in a liminal period of post-disaster damage, to move on from *preserving-as-found* into a set of principles or alternatives to *manage change*, namely new critical approaches that will focus "on the potential of significant remnants capable of transmitting the essence of the objects' unity."<sup>75</sup>

Following the critique against the concept of permanence, Rumiko Hamda argues that the expectations for architecture to be complete, perfect, and permanent are problematic for the sole reason that they negate reality. Among other arguments, she points out towards "authorial authority"-that is to say, the Renaissance idea that has tied beauty to authorship and perfection to origins-as one of the main reasons for the modern associations that still exist between architecture, preservation and completeness. "Beauty is that reasoned harmony of all the parts within a body, so that nothing may be added, taken away or altered, but for the worse".<sup>76</sup> This attitude is still dominant today in architectural design aesthetics and this literal interpretation of beauty hinders and even prevents any later change, addition or subtraction from the "original" to be even contemplated. Furthermore, that such a concept of beauty is found in the De rea aedificatoria of Leon Battista Alberti-the same figure whose theories are still regarded as the genesis of the conservation ideal-makes evident the need to take a critical distance. Dogmatic approaches and theories that have dominated the conservation field need to be revised if we are to achieve alternative positions towards the management of historic fabric.

What is then an alternative for the illusion of permanence when critiquing historic preservation? Mutability is a more proper adjective for describing the actual nature and behaviour of historic buildings in time. Understood as a proclivity to change, mutability can be a concept to explore. Paraphrasing Massey, historic fabric should be seen as constantly shifting articulations of social relations through time.<sup>77</sup> From

its very conception, planning and construction, the materiality of buildings, their uses and the meanings ascribed to them are in constant change. As the conditions of human existence gets transformed with time, the building's political, social and economic particularities also vary, making impossible and illogical to fix them in time. According to Michael Guggenheim: "Even if buildings are considered to be art objects and are listed, changes may still occur. Art historians and proponents of monument protection view changes to buildings with suspicion and try to isolate buildings. But since the preservation of buildings cannot be made without affecting uses and since buildings are always used, protection inevitably has to deal with complex use-patterns. In short, preservation, even if it dreams of isolating buildings, always operates in an environment where change is paramount."<sup>78</sup>

The "isolation" that traditional historic preservation imposes to historic fabric is, again, in direct relation to the endurance of the state's control and the production of nationalist discourses of identity. Resulting from negotiations between tradition and modernity, the nationalist narratives of heritage protection that often motivate the uncritical restoration of monuments and historic buildings define tradition as the country's spiritual dimension to be incorporated into the unique modern present.<sup>79</sup>

However, according to Massey, the identity of a place or group is not to be seen as inevitably destroyed when affected with change. For her, "identity is always, and always has been, in process of formation, it is in a sense forever unachieved." Furthermore, "the identity of places is very much bound up with the histories which are told of them, how those histories are told, and which history turns out to be dominant."<sup>80</sup> Understanding that monuments and historic buildings do not and cannot endure since they are constantly transformed to accommodate the changing requirements of life,<sup>81</sup> and that the protection of tradition cannot be used as the de facto link between historic heritage and collective identity, we will be able to see the liminal potential of post-disaster damage as an opportunity for the reassessment and rehabilitation of historic fabric in more inclusive and creative ways that do not necessarily conform to restoration or preservation as-found.

Now that I have established the need of a holistic understanding of the material and immaterial associations around historic fabric, that permanence is an illusion of preservation, and that it is problematic to consider tradition and nationalist identity as paramount reasons for material restoration, I will propose the concepts of fragment and palimpsest as two alternative frameworks of ideas from which to





Image 06. Totolapan, Morelos Augustinian Convent original elevation.

Image 07. Totolapan, Morelos Augustinian Convent schematic damage.





Image 08. Totolapan, Morelos Augustinian Convent schematic intervention.

Image 09. Totolapan, Morelos Augustinian Convent schematic damage after intervention.





Image 10. Totolapan, Morelos Augustinian Convent schematic intervention after second damage.

Image 11. Totolapan, Morelos Augustinian Convent schematic juxtposition of damages and interventions.

start imagining some possible roads not yet taken. The damage left by the 2017 earthquakes (20% of the affected historic buildings were catalogued as "severely destroyed", which means that partial or complete structural and architectural collapses did occur) allows for these two concepts to explore creative ways to transform traditional preservation into critical intervention.

### Fragments

Immediately after the hit, images of destruction, of rubble, of fallen walls, of collapsed vaults, roofs and bell towers flooded the physical and cultural landscapes of Mexico. If we were to look closely behind these dramatic scenes, what would we be left with? Are there not pieces still standing? Are there not buttresses and arches left? Are there not open spaces and plazas and segments of walls still up? Waiting to be re-imagined, could we not use them as starting points from where to sew the past with the present, imagining new possibilities? Could we not see the damaged historic fabric as fragments from where to start again while still remembering?

According to Gabriela Switek, modernity associates fragments with rather transitory cultural processes, such as crisis, disintegration and aesthetization. Dalibor Vesely assures that before the eighteenth century the concept of fragment was associated to the whole, and that it is with modernity that fragments begin to be seen as entities able to stand on their own, liberated from their historical and immediate physical context, which he analyzed in twentieth century artistic vanguards, such as Cubism and Surrealism. Furthermore, he associates modern conceptions of fragment and fragmentation as linked with ideas of disintegration and a potential for chaos, but goes on to explain that fragments can also be symbolically associated—by metaphorical mechanisms like the aphorism— with a potential for imaginative interpretations and new meanings associated to their previous whole.<sup>82</sup> In this way, the concept of fragment can be understood as dialectical in nature, both as independent remnants and as physical and metaphorical connections to a pre-existent completeness.

Following Robert Harbison "fragments may be construed in both negative and positive ways: as remnants of achievements and plenitudes that are irrevocably lost, or as elements of a restorative power that can provide symbolic and poetic meaning to newly constituted wholes." This latter appreciation of the concept of fragment, one that is intrinsically bound to their potential to engage memory,

creativity and dynamism is the one I will like to propose as an alternative for preservation. In his critique of material conservation, David Lowenthal says that: "fragments not only reveal what is missing, ghost presences of their past, they also refer to their rediscovery. Thus the fragment implies the history of both its deposit and its recovery. Implicating so many surrounding realms, the fragment is invested with repleteness and intensity."

As the concept of liminality encompasses not only temporal but also spatial thresholds, I will propose that the damaged architectural elements and the damaged buildings themselves can be thought as fragments from which post-disaster reconstruction of historic fabric should begin to be imagined in inventive ways. Following Lowenthal, fragments "surpass wholes in joining the past dynamically with the present. Mutilated and incomplete, they impart a sense of life from the evidence of their struggle with time."<sup>83</sup> Furthermore, for Petursdottir and Olsen fragments "can be seen also as a mode of disclosure or revelation, and thus a form of recovering or bringing forth new or different memories."<sup>84</sup>

By utilizing the architectural fragments left by the disaster, critical intervention in historic buildings will indeed preserve historic remnants and at the same time promote new interpretations of the past and future. After being structurally retrofitted and consolidated, the historic fragments will serve as the material signs from which local populations and visitors will continue to relate to peoples, forms, technologies, narratives, stories, and worldviews of the past. At the same time, the juxtaposition of new forms, materials, textures, but also of new spaces, programs and uses will permit historic fabric to actively transform and adapt to novel inclusionary visions of heritage, both in its tangible and intangible components.

## **Palimpsests**

Notwithstanding the evocative potential of fragments as dialectic references to previous and prospective wholes, it is important to note that the concept of fragment speaks predominantly to the material aspects of heritage, that is to say, to the physical form, to the object per se.

For this reason, and aiming for a holistic interpretation of heritage to be implemented as part of the liminal change that the post-disaster scenarios should install in preservation discourses, I will propose a second concept that relates to the more



Image 12. Schematic representation of a historic building re-interpreted as market and as a ruin.



Image 13. Schematic representation of a historic building re-interpreted as temple and as art-studio.



Image 14. Schematic representation of a historic building re-interpreted as greenhouse and as public



Image 15. Schematic representation of a historic building as palimpsest. 01.





Image 16. Schematic representation of a historic building as palimpsest. 02.

Image 17. Schematic representation of a historic building as palimpsest. 03.

fluid components of heritage –Vit-Suzan's abstract entities– and at the same time speaks to its material components. For doing this, and following Rumikho Hamda's epistemology of the incomplete, the imperfect and the impermanent in architecture, I will explain how can the idea of palimpsest be used as a concept in service of critical intervention.

The first step to do this will be to re-emphasize, one last time, that historic buildings should not be seen as objects to be frozen or ossified in a particular past, but as processes in the move, as subjects in the making, both in their materiality and in their use and applied meaning. To paraphrase Bruno Latour and Albena Yaneva, we should see historic buildings and monuments "as movement, as flight, as a series of transformations."<sup>85</sup> To reduce the cumulative changes, both material and immaterial, that a particular historic building –whether civic or religious, colonial, postcolonial or modern– has undergone through time and associate it to a fixed image of the past prevents present day visions to be imagined on and related to it.

In order to open new ways of invention, I will now introduce the concept of palimpsest. Palimpsests are often associated with writing surfaces that, in antiquity, were used and reused over and over again by the act of erasing. The material that was used, of animal origin, was durable in time but expensive in nature, so Medieval scholars and intellectuals were forced to recycle it with every new writing. When it was needed, the old text was erased and the new one was written on top. However, with the passage of time the earlier writings tended to reappear, and thus a variety of texts, meanings and symbols came to resurface, giving a physical presence to different layers of the past.

To think of historic monuments as palimpsests will allow us to look at their complexity beyond mere historicist documents at the service of historians, preservationists and cultural institutions that see their value as mere vestiges of the past. Just as with the ancient texts, the action of erasing –in our case the unpredictability of earthquakes and the multiple scale of damage left– should be seen as an opportunity that allows for a conversation to occur between different discourses. Being temporarily/partially obliterated, the damaged structures and the meanings and uses associated to them in other times can be replaced by new interpretations and views, later to resurface in spatial or architectural elements not necessarily subjected to mimic their pre-disaster conditions.

Furthermore, the concept of palimpsest also underscores the cyclical nature of earthquakes in a territory such as the Mexican, where the partial erasure of the "original" would come after every seismic event. In this way, the multiplicity of layers that an historic structure could eventually portray would only enrich its historic, artistic, social and cultural values. According to Hamda: "the palimpsest proper thus carries three layers of time: the past perfect, or the time of the original writing; the past simple, or the time of the original's erasure and overwriting; and the present, or the time when the original has oozed back to the surface." As we have established before, when talking about historic buildings, and in particular with some of the sixteenth century monasteries in Mexico, the idea of "original" is contradictory, since some of them were rebuilt without us having access to any documentation of that original, and some other being incrementally readapted and retrofitted through time, but it is worth to consider the notion of continuous transformation that the palimpsest implies.

Palimpsest as a concept of critical intervention will allow us to focus also in the change of the intangible, in the change of immateriality, the change of uses, meanings and symbolic associations between users and building in time. When thinking with liminality, and referencing the rites of passage in van Gennep's original anthropological theory, the different ways in which the building has been seen by different peoples in different political and social moments in history will also be taken into account when proposing new ways of intervening historic fabric. In this way, the contemporary revisions will add an additional value to the critically intervened buildings, as these new palimpsests "will not simply look back to the past perfect or past simple, but will set up the present as the past perfect for the future."<sup>86</sup>

Identifying historic monuments as processes in constant transformation and using the fragments of damaged historic fabric after the earthquakes as creative possibilities and not just as remnants of loss are first steps towards change.

## Conclusion.

Historic preservation, understood as the traditional way of dealing with the conservation of historic buildings is, according to this thesis as well as with the writings and definitions of several contemporary scholars, a practice whose theoretical frameworks tend to "easily [be] mistaken with a conservative intolerance for change."<sup>87</sup>

This particular position is deeply entangled to the political and social circumstances that have been part of the preservation movement since its very beginnings. Following Rem Koolhaas' critique of the overwhelming weight and influence that historic preservation has gained in the last two centuries when dealing with the built environment of cities, this work has sustained that preservation is first and foremost an issue of political scope. After defining the ties between history – the events that happened in the past – and heritage – the subjective interpretation of those same events and the narratives that accompany them – this thesis showed that the concepts of national identity and cultural heritage in Mexico have always been related to the preservation of historic monuments by federal and local governments and that the evolution of preservation laws in the country has historically responded to the to the construction of the idea of an homogeneous, modern, nation-state.

However, this thesis also understands that preservation "endears the familiar, reaffirms purpose, validates custom, enhances identity; it guides, enriches, and diversifies life,"<sup>88</sup> and does not intend to be a crusade against historic preservation itself, but rather tends to transform it into a more collaborative, transdisciplinary practice that includes architects, planners, urbanists, landscapes architects, as well as artists, preservationists, historians and local populations into the discussions of what and how to preserve.

To develop a theoretical framework from where to reassess the rigid structures and nostalgic ways of thinking preservation, I introduced the concept of liminality, which overly simplified, has to do with the way in which humans deal with change after a transformative event forces them to redefine the norm. Acknowledging the seismic condition of the Mexican territory – earthquakes are felt in a continuous basis and potentially destructive ones hit every couple of years – and the historical cyclical nature that has influenced the collective memory and idiosyncrasy of populations across different epochs, I argue that the damages left by earthquakes in historic buildings are to be seen as opportunities to transform both the material aspects of buildings and also their intangible immaterialities. Taking the September 2017 earthquakes as provocations to think preservation with liminality, this thesis intended to show that behind the undeniable material losses that accompany catastrophic events, the possibility of using them as opportunities for change can transform the cultural definition of disaster, enabling societies, governments and preservationists to look earthquakes as catalysts from where alternatives can be explored and later implemented.

The liminality of earthquakes allows us to question abstract notions of memory, authenticity and identity that are often connected to the preservation of historic buildings. Following social scientist and history theorists such as Dorey Massey, Arpad Szakolczai and David Lowenthal, among others, this thesis understands these concepts as processes that are continuously transformed and reinterpreted, never complete and always opened to different interpretations. If the concepts that are referenced by preservationists and cultural authorities as the main reasons for the physical restoration as found of the damaged structures are always changing, I propose that the materiality of historic buildings should reflect that variable condition too.

Because of their symbolism, scale, and importance in the cultural landscape of Mexico, and because of the varied scope of damage suffered after the 2017 earthquakes, this thesis took the 16th Century convents in the state of Morelos as case studies to explore the concept of liminality in relation to historic preservation. While recognizing their value as vestiges of a very particular architectural language, historic construction techniques and aesthetic discourses, this work questioned the historic, material and social narratives that enabled the convents to become national and world heritage landmarks, arguing that a new interpretation of their political and social role through time enables their material form and immaterial meanings to be reinterpreted in the present.

In this way, I proposed the concepts of fragment and palimpsest as alternatives

that can begin to shift the conversation of preservation from a rigid protection to a more elastic and dynamic practice, which I call *critical intervention*.

As the value of historic buildings in relation to the traditions of both peoples and places are undeniable, and aspiring towards a tabula plena instead of a tabula rasa, critical intervention understands fragments as remnants that can serve the dialectical purpose of reflecting memory and imagination. Being left after the earthquakes, the pieces of architecture that stay standing can be the interpreted as the perfect point from where to begin the reconstruction of damage historic buildings. In this way, the material aspect of the past is conserved and new forms and ways are built to complete them, enriching the architectural, historical and social dialogue between past and present.

Furthermore, the concept of palimpsest allows historic buildings to be seen as canvas where not only their materiality is superimposed and layered, but also where the immaterial components, the uses, meanings and subjective intentions associated to the buildings inform their intervention and reuse. Thus, the focus of critical intervention does not limit itself to the material remnants of the past, but allow for the abstract entities to inform the reasons and meanings of why, when, how and who is included in the discussion.

Here it is important to state that fragments and palimpsests are only two of many possible concepts to think alternatives to preservation. Because of this, they do not intend to be universal nor conclusive, as the nature of the subjective interpretation associated with them impedes any absolute, homogenous definition of how to do intervene historic fabric. However, they try to be a starting point, a provocation to show that flexible possibilities to deal with historic fabric are indeed possible, applicable and enriching.

Critical intervention aims to look for different cultural ways to respond to post-disaster scenarios. Because of this, its intention is no longer to ask what to do in response to disaster but rather to ask what to achieve with those same responses. In this way, critical intervention tries to change the cultural attitudes towards the preservation of historic buildings and heritage narratives. As noted before, preservation has very often been related to narratives of risk which place permanence of the building's materiality in urge of protection. In a seismic context likes Mexico's, a distinct interpretation of preservation would require not to consider historic monuments

as objects inside a sphere of protection – but rather as processes that exist in a context of continuous unpredictability, where a certain layering of change should be cherished.

This cultural shift, this liminal reversal of attitude towards historic fabric would influence a change in the legal frameworks that dictate the restoration of monuments, impacting the political institutions that are in charge of them.

Finally, as liminality has to do with questioning homogenous interpretations and structures of power that not necessarily respond to contemporary conditions and problematics, critical intervention will only be successful if participatory bottomup strategies get also implemented. A real liminal alternative to traditional historic preservation will only be possible after inclusive participation concurrently works with official cultural institutions and conservation experts in defining and valorizing the potential of damaged historic sites.

To paraphrase Arpad Szakolczai one last time, critical intervention is not just about stimulating creativity by promoting tragedy,<sup>89</sup> but rather about recognizing the potential behind the cyclical damage of earthquakes to help us understand historic buildings in all of their complexities. This will allow us to reuse and re-imagine them in different, dynamic and more inclusive ways, enabling them to become what Aldo Rossi defined as "propelling urban artifacts"<sup>90</sup>, buildings which permanence resides in an ever-changing constant transformation.

## Endnotes

1. for a detail historiography of Mexican seismology see García Acosta, V., & Suárez, Gerardo. (1996). Los sismos en la historia de México (1.st ed., Ediciones científicas universitarias. Serie Texto científico universitario). México: Universidad Nacional Autónoma de México : Centro de Investigaciones y Estudios Superiores en Antropología Social : Fondo de Cultura Económica. 2. Sistema Sismológico Nacional SSN. Reporte Especial Sismo del día 19 de Septiembre de 2017, Puebla-Morelos (M 7.1), http://www.ssn.unam.mx/sismicidad/reportes-especiales/2017/SSNMX rep esp 20170919 Puebla-Morelos M71.pdf 3. http://earthquake.usgs.gov/earthquakes/world/events/1985 09 19.php 4. https://earthquake.usgs.gov/earthquakes/eventpage/us2000ahv0#origin 5. https://earthquake.usgs.gov/earthquakes/eventpage/us2000ar20#executive 6. http://www.animalpolitico.com/2017/10/cifras-oficiales-sismo-19s/ 7. Parimonio Cultural. #FuerzaMéxico Secretaría de Cultura 1:34 min video https://www.voutube. com/watch?v=Iq5x81L6NE4 8. see Feilden, B., & International Centre for the Study of the Preservation the Restoration of Cultural Property. (1987). Between two earthquakes : Cultural property in seismic zones. Rome, Italy : Marina del Rey, Calif.: ICCROM ; Getty Conservation Institute. & Lourenco, Lourenco, Paulo B, Correia, Mariana, & Varum, Humberto. (2015). Seismic retrofitting : Learning from vernacular architecture. Boca Raton [Fla.]: CRC Press/Balkema. 9. see, Ranghieri, Federica, Ishiwatari, Mikio, & World Bank, issuing body. (2014). Learning from megadisasters : Lessons from the Great East Japan Earthquake. Washington, DC: World Bank. 10. Massey, D. (1995). Places and their Pasts. History Workshop Journal, 0(39), 182 11. ibid 12. Pfister, Christian. (2002). Am Tag danach : Zur Bewältigung von Naturkatastrophen in der Schweiz 1500-2000. Bern: Haupt. p.7 13. Körner, M., & International Commission for the History of Towns. (1999). Stadtzerstörung und Wiederaufbau = Destruction and reconstruction of towns = Destruction et reconstruction des villes. Bern: P. Haupt. p.100 14. Pfister C. "Learning from Nature-Induced Disaster" in Mauch, Christof, & Pfister, Christian. (2009). Natural disasters, cultural responses : Case studies toward a global environmental history (International environmental history). Lanham, MD: Lexington Books. p.19 15. ibid 16. Lowenthal, David. (1998). Fabricating Heritage. History & Memory: Studies in Representations of the Past, 10(1), 5-24. 17. Hassan, F. "Environmental Perception and Human Responses in History and Prehistory" in Roderick J. Tainter, Joseph A. & McIntosh, Susan Keech, (2000), The way the wind blows : Climate. history, and human action (Historical ecology series). New York: Columbia University Press. 18. Pfister C. "Learning form Nature-Induced Disaster" in Mauch, Christof, & Pfister, Christian.

(2009). Natural disasters, cultural responses : Case studies toward a global environmental history (International environmental history), Lanham, MD: Lexington Books. 19. Miller, M. (2002). Some Theoretical Aspects of Systemic Learning. Sozialersinn: Zeitschrift Fur Hermeneutische Sozialforschung, (3), 379-421. 20. Massev. D. (1995). 21. Thomassen B. "Thinking with Liminality" in Wydra, H., Thomassen, Bjørn, & Horváth, Ágnes. (2015), Breaking boundaries : Varieties of liminality, New York: Berghahn Books, p.39 22. Niglio, O. "Conocer el valor del patrimonio cultural para conservar su propia identidad" in Niglio, O. (2014). México : Restauración y protección del patrimonio cultural (Primera edición. ed., Esempi di architettura (Aracne (Firm)) ; 26). Roma: Aracne. 23. DeSilvey, C., Navlor, Simon, Sackett, Colin, & Daniels, Stephen. (2011). Anticipatory history. Axminster. Devon: Uniformbooks. p.9 24. Thomassen, B. p. 43 25. ibid p. 40 26. Szakolczai A. Liminality and Experience in Wydra, H., Thomassen, Biørn, & Horváth, Ágnes, (2015). Breaking boundaries : Varieties of liminality. New York: Berghahn Books. p.15 27. Wydra, H., Thomassen, Bjørn, & Horváth, Ágnes. (2015). Breaking boundaries : Varieties of liminality. New York: Berghahn Books p.2 28. ibid. p.4 29. Szakolczai, A. p.48 30. ibid. p. 41 31. Choi, V. (2015). ANTICIPATORY STATES: Tsunami, War, and Insecurity in Sri Lanka. Cultural Anthropology, 30(2), 286-309. 32. Szakolczai, A. p.28 33. Thomassen, B. p. 40 34. Szakolczai, A. p.24 35. Giese B. "Inbetweenness and Ambivalence" in Wydra, H., Thomassen, Bjørn, & Horváth, Ágnes. (2015), Breaking boundaries : Varieties of liminality, New York: Berghahn Books p.61 36. Koolhaas, R., Wigley, Mark, Carver, Jordan, Otero-Pailos, Jorge, & Columbia University. Graduate School of Architecture, Planning, Preservation, issuing body. (2014). Preservation is overtaking us (GSAPP transcripts). New York, NY: GSAPP Books.p.14 37. Villoro, L. (1998). Estado plural, pluralidad de culturas (1.st ed., Biblioteca iberoamericana de ensavo : 3). Mexico, D.F.: Paidós Mexicana : Facultad de Filosofía y Letras, Universidad Nacional Autónoma de México. p. 13-62 38. Cottom, B. (2008). Nación, patrimonio cultural y legislación : Los debates parlamentarios y la construcción del marco jurídico federal sobre monumentos en México, siglo xx (1.st ed., Conocer para decidir). México: Cámara de Diputados. LX Legislatura : Miguel Angel Porrúa, p.47 39. ibid. p. 44 40. Gimenez, G. "Apuntes para la Teoría de la Identidad Nacional" Sociológica num.21 año 8 enero abril 1993 41. Cottom, B. p. 145 42. Sanchez Gaona, L. "Legislación Mexicana de Patrimonio Cultural" Cuadernos Electrónicos No 8

Legislación mexicana del patrimonio cultural" p.60 43. ibid p.62 44. Cottom. B. p.181 45. Sanchez Gaona, L. p.63 46. ibid p. 64 47. see San Miguel, P. (2016). "Muchos Méxicos" : Imaginarios históricos sobre México en Estados Unidos (Primera edición, ed., Historia social y cultural), Ciudad de México: Instituto de Investigaciones Dr. José María Luis Mora, Consejo Nacional de Ciencia y Tecnología. 48. Collom B. p. 42 in reference to Miller, D. Sobre nacionalidad, autodeterminación v pluralismo cultural. (Paidós, Barcelona, 1997) 49. De Silvey, C. (2011) 50. ibid p. 12 51. Plan de acción ante sismos 7 v 19 septiembre. 17 the octubre 2017. Gobierno Federal. https:// www.scribd.com/document/361993553/Plan-de-Accion-Ante-Sismos-Sep-2017-171017 52. Registro de daños Patrimonio Cultural. Official Spreadsheet by the Coordinación Nacional the Monumentos Históricos. INAH. January 2018. 53. Meli, R. (2011). Los conventos mexicanos del siglo XVI : Construcción, ingeniería estructural y conservación (1.st ed.). México: Instituto de Ingeniería, UNAM : Miguel Ángel Porruá.p. 31 54. Kubler, G. (2012). Arguitectura mexicana del siglo xvi (Segunda edición. ed.). Mexico, D. F: Fondo De Cultura Economica. p.62 55. ibid. p.60 56. Lowenthal, D. (1985). The past is a foreign country. Cambridge [England] ; New York: Cambridge University Press, p. xvii 57. Meli, R.(2011) p.240 58. ibid p.205 59. ibid p. 244 60. ibid p.233 61. International Scientific Committee on the Analysis and Restoration of Structures of Architectural Heritage 62. ibid p. 272 63. Jokilehto, J. (1999). A history of architectural conservation (Butterworth-Heinemann series in conservation and museology). Oxford, England: Butterworth-Heinemann, p.1 64. Cooper. F. (2005), Colonialism in guestion : Theory, knowledge, history, Berkeley: University of California Press. p 123-149 65. Koolhaas. R (2014)p.14 66. Guggenheim, M. (2009). Building memory: Architecture, networks and users. Memory Studies, 2(1), 39-53. 67. Jokilehto, J. (1999) p. 47 68. Otero-Pailos, Otero-Pailos, Jorge, Langdalen, Erik, & Arrhenius, Thordis. (2016). Experimental preservation, Zürich, Switzerland: Lars Müller, p.15 69. Consejo Nacional para la Cultura y las Artes. (2000). Memoria Fonden 2000 : Rehabilización de inmuebles históricos dañados por los sismos de junio y septiembre de 1999 en los estados de

Guerrero, Estado de México, Morelos, Oaxaca, Puebla, Tlaxcala y Veracruz (1.st ed.). México, D.F.: CONACULTA, INAH.

70. Vit-Suzan, I. (2014). Architectural heritage revisited : A holistic engagement of its tangible and intangible constituents. Burlington, VT: Ashgate Publishing Company. p.168

71. Arrhenius, T. (2012). The fragile monument, on conservation and modernity. London: Artifice Books on architecture : Black Dog Publishing, p.6

72. Vit-Suzan, I. (2014). p.3

73. ibid p.7

74. Lowenthal, D.(1985) p.211

75. Vit-Suzan, I. (2014). p.8

76. Handa, R. (2015). Allure of the incomplete, imperfect, and impermanent : Designing and appreciating architecture as nature. Abingdon, Oxon ; New York, NY: Routledge, p.53

77. Massey, D. (1995).

78. Guggenheim, M. (2009) p.48

79. Lomnitz-Adler, C. (2001). Deep Mexico, silent Mexico : An anthropology of nationalism (Public worlds ; v. 9). Minneapolis: University of Minnesota Press. p.125-144

80. Massey, D. (1995).

81. Otero-Pailos, J. "Mnemonic Value and Historic Preservation" in Treib, M. (2009). Spatial recall : Memory in architecture and landscape. New York, N.Y.: Routledge.p.253

82. Vesely, D. "Architecture and the ambiguity of fragment" in Middleton, Robin, & Architectural

Association. (1996). The Idea of the city : Architectural associations. London : Cambridge, Mass.: Architectural Association ; MIT Press.p. 108-121

83. Lowenthal, D. (1989). MATERIAL PRESERVATION AND ITS ALTERNATIVES. Perspecta-The Yale Architectural Journal, (25), 66-77.

84. Pétursdóttir., P. and Olsen, B. "An Archeology of Ruins" in Olsen, B., & Þóra Pétursdóttir. (2014). Ruin memories : Materialities, aesthetics and the archaeology of the recent past

(Archaeological orientations). Milton Park, Abingdon, Oxon: Routledge. p. 3-29

85. Latour, B. and Yaneva, A. "Give me a Gun and I will make all buildings move" in Eisinger,

A., Staub, Urs, Geiser, Reto, Kwinter, Sanford, & Bundesamt für Kultur. (2008). Explorations in

architecture ; teaching, design, research. Basel [etc.]: Birkhäuser. p. 80-89

86. Handa, R.(2015) p.130

87. Vit-Suzan, I. (2014).. p.172

88. Lowenthal, D. (1989) p.68

89. Szakolczai A. p.34

90. Rossi, A., Ghirardo, Diane Yvonne, Ockman, Joan, Eisenman, Peter, & Graham Foundation for Advanced Studies in the Fine Arts. (1982). The architecture of the city (Oppositions books). Cambridge, Mass.: MIT Press.

## Bibliography

Choi, V. (2015). ANTICIPATORY STATES Anthropology, 30(2), 286-309.

Consejo Nacional para la Cultura y las Artes. (2000). Memoria Fonden 2000 : Rehabilización de inmuebles históricos dañados por los sismos de junio y septiembre de 1999 en los estados de Guerrero, Estado de México, Morelos, Oaxaca, Puebla, Tlaxcala y Veracruz (1.st ed.). México, D.F.: CONACULTA, INAH.

Cooper, F. (2005). Colonialism in question : Theory, knowledge, history. Berkeley: University of California Press.

Cottom, B. (2008). Nación, patrimonio cultural y legislación : Los debates parlamentarios y la construcción del marco jurídico federal sobre monumentos en México, siglo xx (1.st ed., Conocer para decidir). México: Cámara de Diputados, LX Legislatura : Miguel Angel Porrúa.

DeSilvey, C., Naylor, Simon, Sackett, Colin, & Daniels, Stephen. (2011). Anticipatory history. Axminster, Devon: Uniformbooks.

Eisinger, A., Staub, Urs, Geiser, Reto, Kwinter, Sanford, & Bundesamt für Kultur. (2008). Explorations in architecture ; teaching, design, research. Basel [etc.]: Birkhäuser.

Gimenez, G. "Apuntes para la Teoría de la Identidad Nacional" Sociológica num.21 año 8 enero abril 1993

Guggenheim, M. (2009). Building memory: Architecture, networks and users. Memory Studies, 2(1),

Handa, R. (2015). Allure of the incomplete, imperfect, and impermanent : Designing and appreciating architecture as nature. Abingdon, Oxon ; New York, NY: Routledge.

Jokilehto, J. (1999). A history of architectural conservation (Butterworth-Heinemann series in conservation and museology). Oxford, England: Butterworth-Heinemann

Koolhaas, R., Wigley, Mark, Carver, Jordan, Otero-Pailos, Jorge, & Columbia University. Graduate School of Architecture, Planning, Preservation, issuing body. (2014). Preservation is overtaking us (GSAPP transcripts). New York, NY: GSAPP Books

Choi, V. (2015). ANTICIPATORY STATES: Tsunami, War, and Insecurity in Sri Lanka. Cultural

Kubler, G. (2012). Arquitectura mexicana del siglo xvi (Segunda edición. ed.). Mexico, D. F: Fondo De Cultura Economica.

Lomnitz-Adler, C. (2001). Deep Mexico, silent Mexico : An anthropology of nationalism (Public worlds ; v. 9). Minneapolis: University of Minnesota Press.

Lowenthal, D. (1985). The past is a foreign country. Cambridge [England] ; New York: Cambridge University Press.

Lowenthal, D. (1989). MATERIAL PRESERVATION AND ITS ALTERNATIVES. Perspecta-The Yale Architectural Journal, (25).

Lowenthal, David. (1998). Fabricating Heritage. History & Memory: Studies in Representations of the Past, 10(1), 5-24.

Massey, D. (1995). Places and their Pasts. History Workshop Journal, 0(39), 182

Mauch, Christof, & Pfister, Christian. (2009). Natural disasters, cultural responses : Case studies toward a global environmental history (International environmental history). Lanham, MD: Lexington Books.

Meli, R. (2011). Los conventos mexicanos del siglo XVI : Construcción, ingeniería estructural y conservación (1.st ed.). México: Instituto de Ingeniería, UNAM : Miguel Ángel Porruáç

Middleton, Robin, & Architectural Association. (1996). The Idea of the city : Architectural associations. London : Cambridge, Mass.: Architectural Association ; MIT Press.

Miller, M. (2002). Some Theoretical Aspects of Systemic Learning. Sozialersinn: Zeitschrift Fur Hermeneutische Sozialforschung, (3), 379-421

Niglio, O. "Conocer el valor del patrimonio cultural para conservar su propia identidad" in Niglio, O. (2014). México : Restauración y protección del patrimonio cultural (Primera edición. ed., Esempi di architettura (Aracne (Firm)) ; 26). Roma: Aracne.

Olsen, B., & Þóra Pétursdóttir. (2014). Ruin memories : Materialities, aesthetics and the archaeology of the recent past (Archaeological orientations). Milton Park, Abingdon, Oxon: Routledge.

Otero-Pailos, Jorge, Langdalen, Erik, & Arrhenius, Thordis. (2016). Experimental preservation. Zürich, Switzerland: Lars Müller.

Roderick J, Tainter, Joseph A, & McIntosh, Susan Keech. (2000). The way the wind blows : Climate, history, and human action (Historical ecology series). New York: Columbia University Press.

Rossi, A., Ghirardo, Diane Yvonne, Ockman, Joan, Eisenman, Peter, & Graham Foundation for Advanced Studies in the Fine Arts. (1982). The architecture of the city (Oppositions books). Cambridge, Mass.: MIT Press

Sanchez Gaona, L. "Legislación Mexicana de Patrimonio Cultural" Cuadernos Electrónicos No 8 Legislación mexicana del patrimonio cultural"

Treib, M. (2009). Spatial recall : Memory in architecture and landscape. New York, N.Y.: Routledge

Villoro, L. (1998). Estado plural, pluralidad de culturas (1.st ed., Biblioteca iberoamericana de ensayo ; 3). Mexico, D.F.: Paidós Mexicana : Facultad de Filosofía y Letras, Universidad Nacional Autónoma de México.

Vit-Suzan, I. (2014). Architectural heritage revisited : A holistic engagement of its tangible and intangible constituents. Burlington, VT: Ashgate Publishing Company.

Wydra, H., Thomassen, Bjørn, & Horváth, Ágnes. (2015). Breaking boundaries : Varieties of liminality. New York: Berghahn Books.

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