

Authenticating Adaptation  
Narrating the Incomplete Project

by

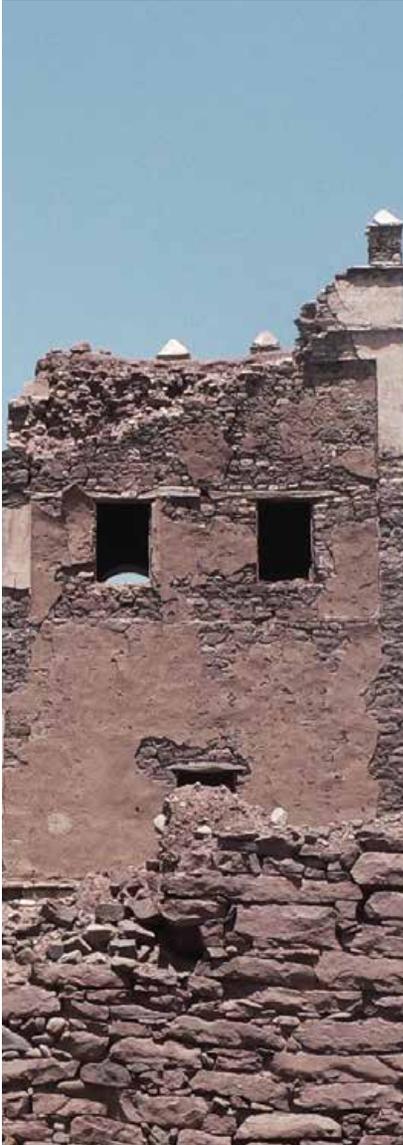
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The purpose of this analysis is to redefine the term “authenticity” in our existing built environment as a narrative process that reveals the continuous ‘inherent adaptation’ of a site, rather than as completed original. Currently, the definition of authenticity employs two key terms: “genuine” and “original”. (LeBlanc 2011) If we consider a site, be it a cultural landscape, urban center or single dwelling, to be the setting where lives unfold, its authenticity should not be linked to a supposed original state but rather the remaining palimpsest that results from inherent adaptation through time. Our surroundings continuously evolve based on our inhabitation. Consequently, the remaining traces resulting from this inherent adaptation narrate the actions that transpired and the values that inspired them. By understanding authenticity within our surrounding as a continuous process rather than as an absolute original, not only will the various remnants that remain from this process be appreciated, new interventions that reflect present values will be also be encouraged. As a result, the act of ‘applied adaptation’, which encompasses all forms of contemporary interventions on existing sites, should be instructed by the process of inherent adaptation to ensure that a continuous narrative linking the traces of past adaptation and relevant contemporary innovation endures. The methodology developed from this exploration will be applied to the Caid Residence of the Kasbah of Taourirt in Ouarzazate, Morocco, which currently requires rehabilitation through applied adaptation. By proposing an intervention that acknowledges authenticity as a process of inherent adaptation, a coherent narrative will be produced that ties the sites evolution to its present needs.

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## ILLUSTRATIONS

# AUTHENTICITY

REAL • GENUINE • TRUTH • ACCURATE

**ORIGINAL**

SINGLE STATE

**NARRATIVE**

PROCESS THROUGH TIME

## "AUTHENTICITY"

The quality of being genuine of original.

(Getty Conservation Institute, 2004)

## "ADAPTIVE REUSE"

The conversion of outmoded or unused structures to new uses or application in new contexts.

(Getty Conservation Institute, 2004)

## 'APPLIED ADAPTATION'

Adaptation to a site that is implemented in any capacity with an intended purpose.

## 'INHERENT ADAPTATION'

the ingrained transformation of a site dependant on contextual evolution.

## "NARRATIVE"

The dynamic interaction between sedimentation and innovation that leads to tradition.

(Ricoeur, 1984)

' ' - term by author

" " - sourced term

The concept of adaptation as an architectural intervention has come in and out of fashion since antiquity. Adaptive reuse has become an increasingly popular intervention method in both the fields of architectural conservation and design over the last twenty years due to its ability to acclimate to contemporary necessities while still maintaining an image of the past. In Stewart Brand's 1993 built adaptation study, *How Buildings Learn*, adaptive reuse was blossoming into a practice that was respected in the field of conservation, with its roots in preservation. As the practice grew in popularity in the field of conservation, contemporary developers and designers began to appreciate its economical and sustainable benefits, propelling adaptive reuse into the realm of high profile architectural design. (Brand 1994, p. 57) While the process of adaptation has become consistently more valued, its application varies depending on the principles of those who employ it. The adaptation of an existing context is unavoidable, however without a methodology for its application, a range of implementation practices will continue to exist that overvalue either the contemporary or existing.

Throughout its existence, a structure continues to adapt. From its conception in the architect's subconscious, through its first sketch, methodological construction and inhabitation to its progressive deterioration adaptation is persistent; yet the depiction of time through inherent adaptation is still underappreciated. Rather than struggling between protecting an idealized version of the past or disregarding the existing to promote a contemporary aesthetic, designers

and conservationists should instead be driven by the inherent adaptation that already occurs within the built environment.

The value of inherent adaptation lies in its depiction of time through narrative, which should ultimately produce an authentic depiction of a cultural identity. The structure of narrative, as described by Paul Ricoeur, requires both the sedimentation of past remnants, current innovation and the possibility of future innovation to be fully realized. This process produces evolutionary tradition, or culture, that ultimately reflects that passage of time. (Ricoeur 1984, p. 121) Based on Ricoeur's definition, if the process of narrative requires both the sedimentation of the past as well as current innovation to persist, it is critical that the fundamental values and goals of the fields of conservation and design amalgamate to facilitate interventions that reflect this definition. The process of inherent adaptation should ultimately be the model for applied adaptation, ensuring the narrative of the past is maintained, yet current and future innovation is facilitated.

The term "authentic" is used throughout the field of conservation as a way of prescribing value to the existing, however this value is still based on an idealized original state. While this term has developed over time to take into account values unique to a specific cultural identity such as form, materials, function, traditions, context, language and spirit, the inclusion of term "original" when describing authenticity disregards time as a value when determining significance. As a result, if we consider our surroundings to be in constant flux, can originality still be considered an authentic representation?

The purpose of this analysis is to redefine the term "authenticity" as a continual process of a site's inherent adaptation through time, rather than as an idealized version of a complete product in its original form. As such, the role of applied adaptation is to enhance the narrative process by applying relevant innovation that reflects the contemporary needs of a community while still allowing the values of the past to communicate through existing remnants. By allowing the narrative of time to dictate the

articulation of the intervention, a community's identity remains relevant through an authentic depiction of their changing ideals and values, rather than values being forced upon them.

Chapter 1 will examine the process of inherent adaptation and its fundamental characteristics as a means of establishing the validity of adaptation through time as a depiction of cultural authenticity.

Chapter 2 will analyze the current state of applied adaptation in both the field of conservation and design. Part 1 of this chapter will examine the guidelines that dictate the way in which adaptation of heritage is presented in conservation literature. Part 2 will explore a collection of contemporary case studies that utilize applied adaptation, categorizing them based on the role that time and narrative are apparent. Ultimately, an understanding of the current characteristics of applied adaptation will be established as well as a revised list of the requirements that allow for narration to persist on the intervening site that promotes valid growth relevant to the community.

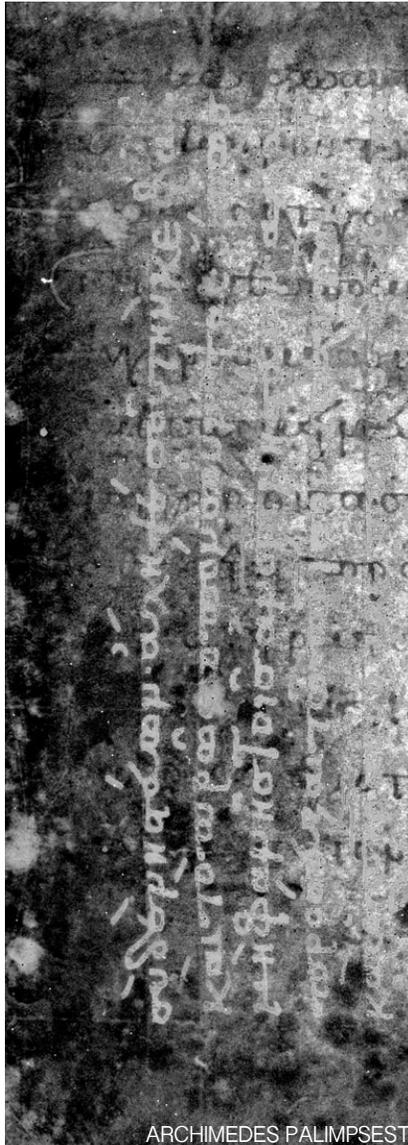
The results of this exploration will be used to establish an applied adaptation intervention for the Caid Residence of the Kasbah of Taourirt in Ouarazazate, Morocco, which has undergone inherent adaptation over the past five centuries due to various social, political and economic changes that have occurred within its context. The remnants of this adaptation are evident within its earthen composition, which due to its innate adaptive nature allows for alterations by its inhabitants based changes in value. With the current desire to prescribe a new use for this site in ruin, exhibiting the value of time is essential when creating an authentic applied adaptation intervention. Ultimately, the process of narration will be persistent by integrating relevant innovation to an already rich accumulation of past sedimentation, creating a comprehensive whole that is a truly authentic exhibition of the surrounding culture's identity.



**C1**

History is generally treated as an unbiased truth, composed of the remnants of the past that are deemed the important constructs of a culture's identity. While the objective fragments of the past are evidence of historical values and events, the decisions that govern their importance, conservation and dissemination are directly based upon changing cultural ideals. History consequently must be regarded not as an absolute recount made up of a beginning, middle and end but rather an evolving narrative that continually changes based on the evolution of a community's values.

## **INHERENT ADAPTATION**



Narration, as outlined by Paul Ricoeur, is a process that relies on a balance between the sedimentation of past innovation, the creation of current innovation and the acknowledgment future alterations. The overall narrative assembly is the resulting tradition that is perceived as cultural identity. (Ricoeur 1984, p. 127) For a cultural narrative to persist, the past sedimentation and trace needs to be appreciated as well as current innovation that appeals to present needs. The persistent inherent adaptation in use and value is evident in the built environment though resulting trace making, which can be tangible or intangible. The palimpsest of a culture is communicated through not only the physical layers that remain but also the methodological process that produced them. The trace is the resulting story of the place that depicts persistent change through time. As such, history in the built environment needs to be understood as the process of sedimentation through time and not as an absolute state.

This chapter will analyze a community's past through the structure of narrative in order to understand the value of time in the representation of cultural authenticity in the built environment. The inherent objectivity and subjectivity within the depiction of history will be examined in order to appreciate its didactic yet relative role within a community. The resulting conclusion will evaluate how the current state of an existing site needs to be addressed in an applied adaptation project in order to attempt to communicate an authentic narrative of a community's cultural identity, if authenticity is indeed even achievable.



diagram illustrating the process of narrative

The process of narration, as outlined by Ricoeur, establishes how the interaction between innovation and sedimentation leads to tradition. While Ricoeur's definition of narration refers to the written word, the relationship he describes between tradition, innovation and time can be applied to the process of any creative medium, including architecture, throughout history. Ricoeur describes innovation as a guide that allows for further experimentation, sanctioning a process of change. Sedimentation constitutes the typologies of compositions that allow genres to be created. This is a dynamic development that confronts the nature of a genre or style and causes the original to generally be altered in a form of regulated destruction, allowing tradition to continue to develop. The central aspect of Ricoeur's definition of narrative ultimately demonstrates that tradition is not stagnant, but has the ability to change and produce new traditions that are versions of the original. (Ricoeur 1984, p. 127) As a result the overall story, or history, is defined as a synthesis of events producing a general understanding of its composition. In the case of a community, this understanding of the various moments through time that fuse into one history will ultimately assist in defining vague concepts such as cultural identity.

## 1.1 THE STRUCTURE OF NARRATIVE

**All things are subject to interpretation. Whichever interpretation prevails at a given time is a function of power and not truth.**

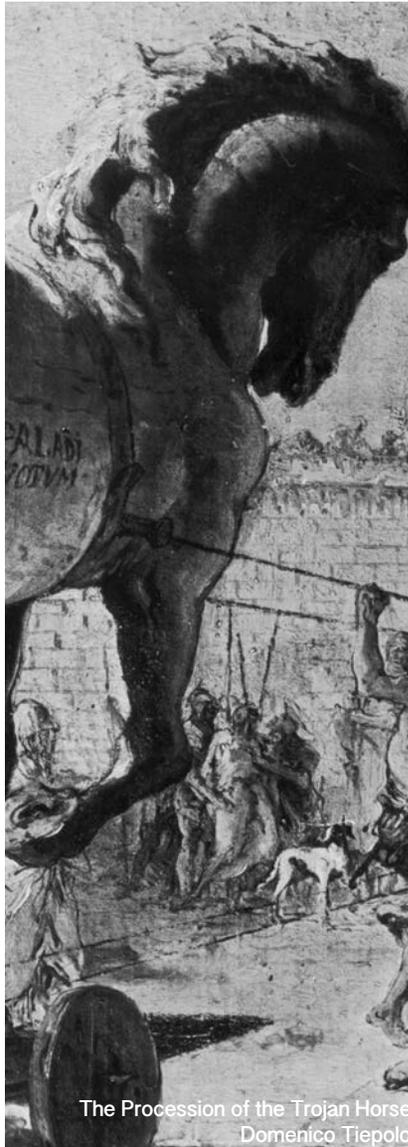
**- Fredrich Nietzsche**

The structure of the narrative allows Ricoeur to assess the validity of what we call history and how it is produced. History is not fact, but remnants which have been passed down through memory. This memory is subjective and does not contain a universal truth, but rather can be a part of a collective memory in a community. The initial building up of an archive is already subjective in that information has to be purged and therefore a hierarchy of memories is produced. The understanding of individual historical facts is based on their relationship to one another, as each testimony is a circle of interpretation that creates a credible argument (Ricoeur 1984, p. 104). As with the concept of tradition as it relates narrative, history is a dynamic process in that each memory allows for additional testimonies to enhance it, in order to create an even more intelligible whole. This subjectivity is evident in the built environment, especially with the current definition of authenticity as being original or genuine. By acknowledging that history is a subjective collection of what is deemed important, we can allow some liberties in how we approach adding to our existing structures. If the building itself is a physical representation of a narrative process rather than an absolute entity, then we allow for greater breadth when it comes to the interventions that are presently being proposed. If we considered Ricoeur's definition of narrative and how it continuously shapes our traditions, it is important that our current innovations truly represent relevant values of our time, as those too will eventually be considered historical fragments, which should not be diluted.

**“It is us, in society, within human culture, who makes things mean, who signify. Meanings, consequently, will always change, from one culture or period to another.”**  
- S. Hall

The impermanence of tradition is validated in Hannah Arendt’s work, *Between Past and Future* in which she examines the mortality of all “man-made things” that have been produced throughout history as a means of preserving a narrative. She reveals that the purpose of the man-made artifact, be it written text, art, or architecture, is an attempt to make the individual man immortal. While an individual story can be maintained for a period of time, the only ever-present entity is nature. Beyond the natural realm, every tradition and history is an artificial production that contains elements of the original act, yet can never be truly immortal. In that regard, it is impossible to preserve a historical account be it through the written word, an artifact, or the built environment in an original state. Their true story, however, is the one currently being written, which includes all of the impeding forces that promote change and growth. (Arendt 1961, p. 42)

## 1.2 NARRATING CULTURAL TRADITION



The Procession of the Trojan Horse  
Domenico Tiepolo

Arendt, like Ricoeur, argues that the significance of an action cannot be truly recognized until it has run a certain course and its relationship to other actions has been established. She acknowledges that memories are not absolute but a source of inspiration, or innovation, for the future and act as models to be imitated and potentially surpassed. History, in the form of narration, can accordingly teach lessons and discourage futility as a community. The Greeks, Arendt points out, knew the value of the narrative as means of teaching a lesson, such as Homer's account of the battle of Troy. The narrative of history needs to be used as a lesson for present day, not as regulation. Culture is thus the process of gathering, consolidating & exchanging meaning through tangible and intangible mediums. The consumption of heritage is a vital aspect of its representation, as the interpretation is what gives it value. As such, the assembly of narrative is as imperative as its interpretation. Arendt indorses the importance of the community as the audience in order to preserve the narrative and its meaning by saying "audience is a metaphor for the political community whose nature is to be a community of remembrance". (Arendt 1961, p. 124) The community, or polis, has the primary function to preserve the words of the past in order to be a testament for future generations. The term preservation as outlined by Arendt needs to be taken lightly, as means of telling a narrative rather than maintaining a stagnant ideal of the past. Hall reinforces this caution by adding, "Heritage is concerned with the ways in which very selective material artifacts, mythologies, memories and traditions that become resources for the present." (Ashworth 2005, p. 4)

**“We must reckon with the artifice no less than the truth of our heritage. Nothing ever made has been left untouched, nothing ever known remains immutable; yet these facts should not distress but emancipate us. It is far better to realize that the past has always been altered than to pretend it has always been the same... Every relic is a testament not only to its initiator but its inheritors, not only to the spirit of the past but to the perspectives of the present.”**  
- D. Lowenthal

The synthesized history that results from the narration of memory contains both objective and subjective components. Ricoeur examines the structure of narrative further in his essay, *Objectivity and Subjectivity in History*, through the roles of the historian and reader. As a community, we expect history to contain the objective facts that bring value to our civilizations. This value, or culture, narrates a version of past events while giving relevance to the present. Ricoeur points out that as the narrator, we expect the historian to exhibit an educated subjectivity to propose an understood and consolidated objective narration. The history of a culture is the educated synthesis of accounts, attempting to create an overall objective truth from the educated synthesis of subjective elements. History contains three layers of subjectivity that are interpreted as an objective whole: the personal subjectivity of the educated historian, the subjectivity of mankind, and the reflective subjective of the reader. The production of a consolidated narrative is thus the amalgamation of subjective elements, and consequently the validity of history is dependent on various values, such as those when the action took place, when the action is deemed important, and its contemporary interpretation. (Ricoeur 1984, p. 21) By acknowledging the subjectivity that creates narrative, the overall narrative itself can be considered an objective collection of past values. It is necessary that the accumulation of subjective fragments is continuous in order to ensure that the current cultural identity is relevant.

## **1.3 CONSERVING NARRATIVE**

The purpose of narrative is to reveal an overall truth, yet the dynamic nature of time alters the depiction of that truth. Today, while the principles of past philosophers can help inform contemporary conservators about the correct way to approach a heritage site, conservator Savaldor Munoz-Vinas has established a contemporary guide to modern conservation to contend with the term authenticity in the present. Terms used to describe conservation projects such as “reverting back”, “recover” and “reveal” all imply that the act of conserving has the ability to revert an object back to its original truth. This is a subjective insinuation as it suggests that the object once contained a truth that is no longer present in its current state. This truth is consequently considered the authentic nature of the object, and in turn validates alterations to that object in order to reveal it. (Munoz-Vinas 2005, p. 23) This idealization of the past is a mentality that stems from various preservation initiatives throughout history. The preservation movement of the 1970’s and 80’s was crucial in reestablishing a value of the past

in retaliation against the modernist movement of the 1950’s and 60’s as a means of cultural responsibility. (Brand 1994, ch.7 p. 57) Preservation is a broad term, and as such the various streams of the practice have various means of interpreting the heritage value. When the original is valued rather than the process, the past becomes a distorted, nostalgic version of a supposed original that has a tendency to be exploited as a spectacle.

**“A lot of our belief in preservation comes from our fear of what will replace buildings that are not preserved; all too often we fight to save not because what we want to save is so good but because we know that what will replace it will be no better.” – Paul Goldberger**



BETSY ROSS HOUSE, 1898



BETSY ROSS HOUSE, PRESENT

The subjective nature of history is epitomized in the preservation of the Betsy Ross house in Philadelphia, Pennsylvania. Its restoration is the product of America's late-19<sup>th</sup>-century enthusiasm for preserving buildings of patriotic significance, initiating the safeguard of arbitrary buildings to produce imagined historical heroes. As a result, Betsy Ross was chosen as the first female hero of the American Revolution based on loose historical evidence that could fabricate a plausible historical account. (Brand 1994, ch. 7 p. 30) Beginning in 1898, two million Americans donated dimes to convert the building from a time worn building into a national shrine, and since that time, various other subjective alterations have been applied that further substantiates the nostalgic nature of the site. In the 1920's the building was going to be moved to Fairmont Park, the largest Urban Park in the U.S. in order to protect it from damages and vandalism from the surrounding neighborhood. The two factories adjacent to the house were removed in the 1930's in order to safeguard it. The body of Betsy Ross was then moved and interred next door to the flag house in 1975 in order to further memorialize the fabricated hero. (Betsy Ross Homepage 1996) Currently, the house acts as a museum with Betsy re-enactors sewing American flags in corner, narrating the invented history of the American Flag. As a result, the Betsy Ross Flag house truly embodies the inauthentic outcomes that arise from trying to preserve a single point of history throughout time.

## BETSY ROSS'S FLAG HOUSE



CHARTRES CATHEDRAL  
PARTIALLY REPAINTED NAVE



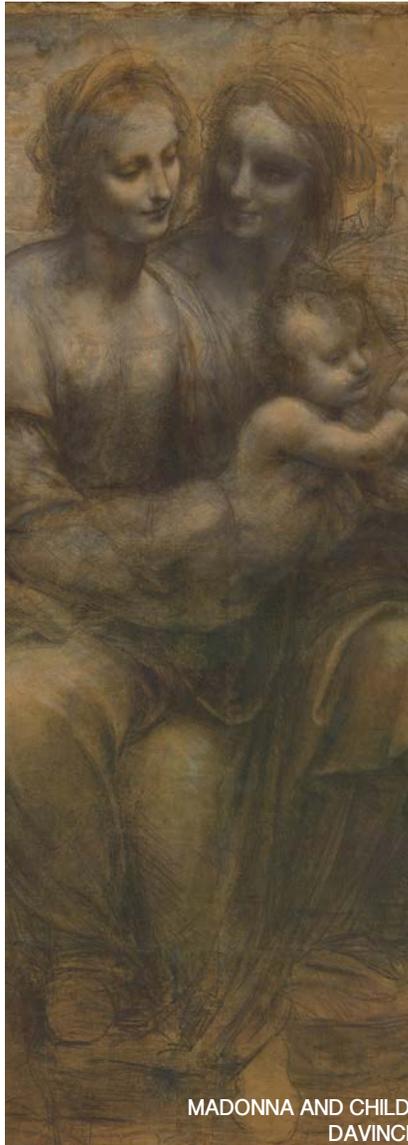
CHARTRES CATHEDRAL  
TRANSEPT REPAINTED

The present rise in refurbishing European medieval buildings exemplifies the persistent value placed on originality. Writer Martin Filler experienced these changes on a recent trip to Chartres, France in 2014, where he discovered that the interior of his previously beloved 13<sup>th</sup> century grey limestone Cathedral had been painted over. The aged, beautifully weathered walls were painted in bright whites and pastels, mimicking masonry blocks with mortar, blue faux marble ceilings and floor to ceiling piers covered in glossy yellow trompe l'oeil marbling that may or may not have ever existed. The decisions to make these changes were based on loose evidence by restoration architect Frédéric Didier (Filler, *A Scandalous Makeover at Chartres* 2014). Not only do these interventions remove all of the accumulated layers of narrative, the decision that dictate their action is based upon speculative evidence of the past and thus creates an atmosphere of fakery.

**“The belief that a heavy-duty reworking can allow us see the cathedral as its makers did is not only magical thinking but also a foolhardy concept that makes authentic artifacts look fake.”**

**- Martin Filler**

## CHARTRES CATHEDRAL



In order for classical conservation principles to be relevant, Munoz-Vinas states “you have to not abide by them at some given moment. Sooner or later it is necessary to discard them to enable conservation to be reasonable and acceptable.” (Munoz-Vinas 2005) He acknowledges that an authentic object is not the true state of the object but rather its preferred or expected state. Conservators ultimately modify reality in order to suit their own expectations and preferences. The current definition of authenticity helps architects believe in a higher reason so that they are not implementing their own preference. An object that Munoz-Vinas uses to illustrate his point is the Virgin and the Child in National Gallery in London. The painting was shot in 1986, causing a 12mm hole to perforate the painting as well as glass shards to penetrate the canvas. The hole was consequentially patched and the shards removed, with a new finish added to the surface. Munoz-Vinas argues that while the restored version may be the preferred state, it is no longer authentic to the narrative of the painting. The refinished version is a falsification that no longer allows the viewer to truly understand the object’s past, and consequently forever alters its present and future states. (Munoz-Vinas 2005, p. 96) It is in this mindset that one must approach an adaptive reuse project and acknowledge that the subjective nature of conservation has just as much, perhaps even more of an ability, to alter the authenticity of site in terms of continuous narration, as does new design.

It is important not to disregard the falsification of historical objects, but to celebrate the fact that falsification is a reality amongst all artifacts, disregarding the notion of a true state. He recognizes David Lowenthal's work regarding the fabrication of history that has occurred over centuries. These fabrications that Lowenthal outlines served many purposes including power, economics and faith. He states, "We must reckon with the artifice no less than the truth of our heritage. Nothing ever made has been left untouched, nothing ever known remains immutable; yet these facts should not distress but emancipate us. It is far better to realize that the past has always been altered than to pretend it has always been the same... Every relic is a testament not only to its initiator but its inheritors, not only to the spirit of the past but to the perspectives of the present." (Munoz-Vinas 2005, p. 102) Acts of fabrication are essentially acts of taste, and have been subjectively thrust upon heritage for centuries. It is done without intention, but generally occurs in three ways: the selective forgetting of past events, the

upgrading to contemporary requirements, and the contrivance of genealogies that prescribes a typology onto an object. Each of these acts of falsification is subtly executed, however the fact that the act of conservation cannot occur without some form of fabrication must be recognized as a part of the practice. In order for conservation projects to be successful, it is necessary for the architect to embrace the role that fabrication has in their practice. The classical conservationist ideal that to alter an object is to lie must be disregarded. Munoz-Vinas claims that it is impossible to falsify an object and that as architects we must respect the truth and at the same time we must lie. The truth of an object depends on what a person believes that object to be, and not on the object itself; the object cannot lie. We transform the object, but it does not mean that we are lying: whatever the state of the object that is its reality. He states that "A torn piece of paper is authentically torn, it is really torn." (Munoz-Vinas 2005)

**From man we expect accomplished artifacts as symbols of a necessary process of human production; on the other hand, from nature acting over time, we expect their disintegration as the symbol of an equally necessary passing... What must be strictly avoided is interference with the action of nature's laws, be it the suppression of nature by man or premature destruction of human creations by nature.**  
- Alois Riegl

The built environment should be recognized as the palimpsest of a community, retaining traces that depict the constant innovation of its surroundings. In November 2014, David Leatherbarrow made an address at the Azrieli School of Architecture Forum Lecture Series stating, "Every trace is factual. What remains of the past is preserved through this means as long as the substrate survives and the mark is not erased or corroded. Because it preserves what is perishable, the trace can be said to compensate for time's passing." (Leatherbarrow 2013) Leatherbarrow further explained that while it is necessary to recognize the charm in the trace, the act of preservation dissolves the process of trace making, thus continually bringing the present into the past. Rather than preserving, the goal should be to retain a continuity of trace making that depicts of evolution of the site. On the other hand, weathering is considered to be a destructive process that needs to be rectified to maintain a sense of pristine authenticity, especially considering the current definition of authenticity. Rather than considering it to be a subtraction of the surface, weathering should be considered an additive, or sedimentation, process; layering the traces that communicate an overall history. (Leatherbarrow, Carleton University 2013)

## **1.4 THE OBJECTIVE TRACE**



IN AWE OF THE RUIN  
CASA D'ORO  
JOHN RUSKIN

The trace should be recognized as the evidence of past narrative and evolution, and as such these traces should be palpable but still be permitted to evolve and change with their surrounding context. If we consider the built environment as a process rather than a product, these continuous remnants need to be embraced, but not idealized. It is the trace's relationship to the overall process that gives it value and as such it should be allowed to change and evolve in response to its context.

“Finishing ends construction, weathering constructs finishes (Leatherbarrow and Mostafavi 1993, p. 8).” Rather than embracing the false notion of the completed state, it is important to appreciate the role of architecture in communicating past narrative through the trace while allowing for further trace making. As Leatherbarrow point out, “Exposure involves sedimentation and the gathering of residue deposits, the combination of which – addition and subtraction- is a testimony to the time of the building. Architectural duration implies a past that is caught up in the present and anticipates the future.” The building's style is that of its occupants and the trace that is left preserves the memory of the actions that occurred. The trace contains the evidence that the building is constantly evolving based on its occupants, the site and all other elements that are imposed on it. In order to achieve an authentic representation of a cultures narrative, the trace as it relates to adaptation should be present and permitted to continue to evolve.

It is not only the act of preservation that can be attributed to halting the process of inherent adaptation in our built environments; contemporary design practices consistently disregard the adaptive nature of the built environment, attempting to “complete” a stage or state of its existence. Leatherbarrow defines this constant need for completion as “production” instead of “process”. (Leatherbarrow 2013) Present digital technologies have the ability to further encourage the notion of completeness, allowing designers to model every element of their composition, implying that these intricacies will be carried out in the construction process. Leatherbarrow argues that rather than being so focused on completion, the built environment needs to be treated as a project, or a plan for anticipated action that is cultivated by the decisions of the past. He points out that a state of completion never truly exists, and consequentially any efforts made that ignore a building’s intrinsic adaptation is undermining its nature as a piece of architecture. The architectural project is

filled with phases that contain beginnings and endings with no finite state of completion. Even through the process of designing and construction there are many instances of adaptation that allow the project to become a piece of architecture. Throughout the design process, the suitability of elements such as site, program and material are adapted to the moment construction is finished. This point of completion is generally when a project is considered to be in its original state, the state to which all conservation and maintenance methods aim to keep it. This mentality undermines architecture’s purpose by ignoring the presence of adaptation throughout a building’s existence. The true state of the building is how it is right at this moment, since the past and present are the same as they are both as they are in their true states. “Senses of place must be related to senses of time if only because places are in a continual state of becoming.” ( Eric Perry Architects 2013)

## 1.5 THE INCOMPLETE PROJECT



In Rimini, Italy, sits a temple whose role was intended to embody an unspoiled version of the completed product of humanity, yet who's legacy recounts the true nature of the consistently incomplete architectural project. In the 15th century, Pandolfo Malatesta, who's brutality and legacy led him to be one of the most powerful men in the region, wanted to prove his worth by transforming the existing church of St. Francis in his own pagan shrine, the Tempio of Malatesta. Malatesta valued ancient wisdom, and as such commissioned Leon Batista Alberti to design his shrine. Alberti was a theoretician, not a practitioner, however he desired to find a project through which he could put his wisdom into practice. His writing, *De Re Aedificatoria*, was an attempt to revive and preserve the architectural wisdom of antiquity, which paralleled Malatesta's yearning to produce a building that symbolized perfectionism through ancient wisdom. In Alberti's writings, he aspired to complete a perfect representation of beauty that would be upheld for eternity and consequently his design for the exterior of Tempio Malatesta was as much of a statement of classical wisdom as the author could make it. "Beauty is that reasoned harmony of all the parts within in body," Alberti proclaimed, "so that nothing may be added, taken away, or altered, but for the worse." He consequently did not regard any changes to be made to the original as additive, but rather as detrimental to the structure's original beauty.

## ALBERTI'S TEMPIO MALATESTA

Alas, Alberti's aspiration for perfection only existed conceptually, as throughout the construction process many compromises were made and consequently the temple was never completed in its entirety or original intent. Alberti left the construction of the temple in the hands of Matteo de' Pasti, whose letters back and forth to the theoretician demonstrated the frustrations in project making when theory is translated into practice. Firstly, it is clear that de'Pasti and his provincial workman did not understand the classical language of Alberti's design and had rashly challenged his Pythagorean system of proportion. Previous unobserved features of the church of St. Francis additionally interfered with the design's realization, especially the concept of encasement, with buttresses protruding from the west façade. Supplementary factors such as a lack of funds and materials changed the overall composition of the new intervention, especially by promoting the use of spolia from other monuments to complete the vision.

The incomplete temple constructed of the fragments

of other monuments completely opposes Alberti intent for completeness. As Edward Hollis explains, "The famous temple of Rimini, Alberti's statement of classical perfection, is nothing more than an incomplete sentence, a non sequitur, a stutter." The incomplete sentence, as Leatherbarrow points out, demonstrates the inherent projective nature of the architectural project, and the unfeasibility of ever achieving a perfect, complete state. (Hollis 2009, p. 1-33)

**“What is yet to come hides  
within what is now. History is  
what we are in the midst of,  
and yet is incomplete.”  
- Alvaro Siza**



If the purpose of the architectural project is to project into the future, then intervention is inevitable. If interventions are approached with an intended sense of completion, or production, they will never be successful. The philosophies of Alvaro Siza demonstrate the importance of the survey, not in the traditional, objectionable sense but to understand the process that stimulated a site's present state. The most typical form of contemporary survey is meant to record the as found condition of sites as a complete record of its current state. Siza's interpretation derails from the traditional definition of survey and the need for perfection, admitting that in a survey for intervention purposes, it is pointless to show everything.

In his initial survey of the Abbaye du Thoronet in Provence, France, he was given a typical, naive map, which was intended to guide him in a prescribed route around the property. Rather than commencing within the site itself, Siza started his survey in the surrounding landscape, where he was able to take in the elements that produced the site over time. He charted objective remarks such as wind patterns, sun paths and the geometry of the surrounding villages. "What was given was produced." ( Eric Perry Architects 2013) Each observation rectifies the original, producing a survey that not only depicts the concrete, measurable elements but those unbiased traits that are critical to understanding the site's context.

## 1.6 SUBJECTIVE SURVEY, OBJECTIVE MAKING

**“It’s not the whole of the site that survey documents, it’s the parts. And it’s as if the parts gives rise to completion, or opens itself to appropriation by virtue of its partiality.”  
- Alvaro Siza**

Supplementary to these objective observations, Siza also notes the intangible characteristics that reveal an attribute of the site that revealed his own personal experiences. When hearing the bells of the monastery during his exploration of the surrounding site, Siza related the sound to his Portuguese upbringing, as well as to Paul Cezanne’s landscapes. “When he moved through the forest, it was the bells. The Bells opened the entire landscape.” ( Eric Perry Architects 2013) His experience within the site’s context brought his own personal understandings to the surface, which he then sketched within the survey. Siza embraces the subjectivity of his own experience and when combined with objective history, context and characteristics of the site, are the ingredients for creating a successful intervention. When the architect not only understands the historical intricacies of the site in which they are intervening, but also survey the intangible objective characteristics as well as interpret their own subjective experiences, they can truly produce a respectful, thoughtful, in-depth design. “There is a limited subjectivity in every history, it’s not a story, but a collection of facts.” ( Eric Perry Architects 2013) In this statement Siza respects the subjectivity of historical as well as the objective in the trace in the physical remnants of a site. His methodology analyzes the necessary partiality of the survey.



## CONCLUSION

History, or narrative, is a dynamic process that is constantly evolving based on changing values. These fluctuations are reflected in the intrinsic adaptations of the built environment. As such, the concept of authenticity as it relates to cultural identity cannot be based on a single “original state” but the adaptive process of narration. Architecture, as a project, should be considered as an evolving process rather than as a product. While remnants of this process are valuable entities that demonstrate the passing of time, it is not the individual traces that contribute to narrative but rather their relationship to one another and the process that produced them. Any remnant or characteristic that demonstrates past values and actions has value, but it is the overall collection of these remnants that demonstrates an authentic narrative of a culture’s identity. An overall subjective curation of these remnants is inevitable, yet it is critical to appreciate the process of narration through time rather than a specific period time or remnant as being superior to another in the overall architectural project. As Arendt points out, memory, or trace, is not absolute but a source of inspiration, and consequently the process of narration relies on constant innovation to remain relevant. (Arendt 1961, p.42) We cannot simply rely on past traces to communicate the narrative of a site, there must also be new additions that reflect current values and demonstrate a relationship to the overall process of narration. New interventions must ultimately be contemporary in order to best reflect present values, yet not overpower the overall narrative. When determining the most effective means of communicating this narrative, an understanding, or survey, of a site’s value based on objective evidence will always be subjective, promoting innovation in the intervention process.



The purpose of Chapter 2 is to understand the present attitudes towards ‘applied adaptation’ within the fields of architectural conservation and design. While both streams routinely implement applied adaptation, each employs a distinct methodology due to its unique contextual goals. Section 2.1 will examine how the field of conservation views adaptation and change as they relate to the term authenticity. Several national and international charters and guidelines that are implemented worldwide will be examined to understand the conflicting terminology and attitudes that are still present surrounding adaptation and change. Section 2.2 will explore various case studies that implement applied adaptation in various methods, demonstrating the range of the practice’s implementation and whether narrative is either encouraged or inhibited. By examining the various applications and attitudes towards applied adaptation, a methodology dictated by the qualities of inherent adaptation will be established that encourages the retention and persistence of narrative.

**C2**

## **APPLIED ADAPTATION**

**Preservation is the only mass popular movement to affect critically the course of architecture in our century.**  
**- Vincent Scully**

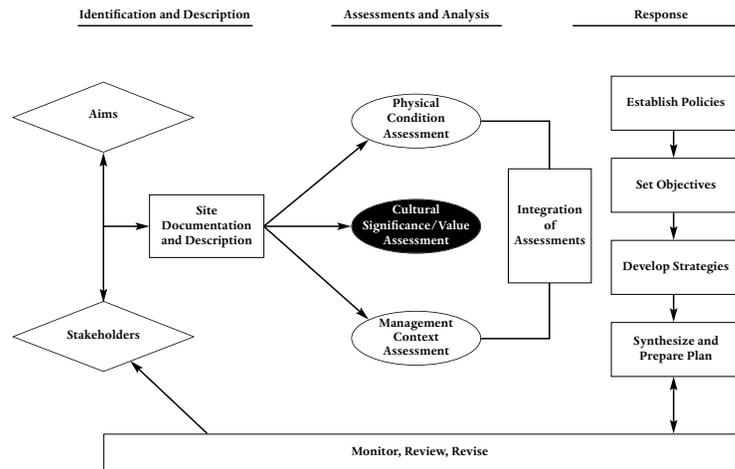
Resources that are typically referenced for applied adaptation are found in the charters and guidelines established by national and international governing bodies whose main goal is to conserve the past. Consequently, the wording within these documents still has a tendency to validate the past over the present. The preservation movement of the 1970's was established in retaliation against the mid 20<sup>th</sup> century modernist movement, thus the adaptive reuse movement that followed still contains conservative values. The evolution of applied adaptation has allowed these guidelines to liberalize, however the role of adaption in the existing built environment still lacks credibility. (Brand 1994, p. 27) Today, adaptation is routinely being implemented as an intervention method as well as being recognized in trendy terms such “living heritage”, however it is still not validated in the charters and guidelines that govern acts of conservation.

## **2.1 A CONSERVATOR'S PERSPECTIVE ON ADAPTATION**

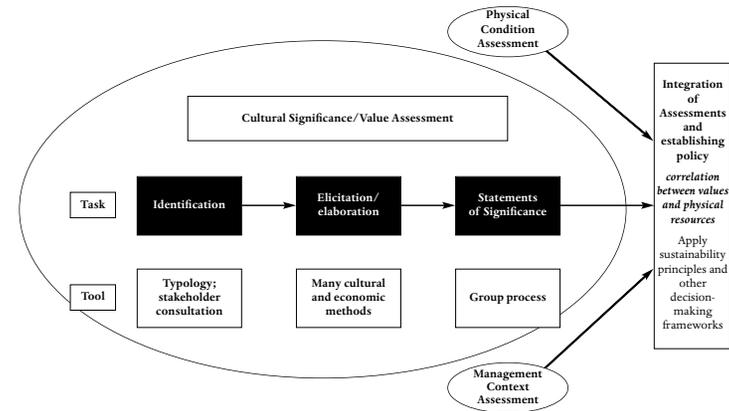


The current role of values within the heritage community is assessed in Randall Mason's *Assessing Values in Conservation Planning: Methodological Issues and Choices*. This study is significant in that it not only analyses the multi-dimensionality of cultural values as they pertain to heritage, but also their conflicting nature and subjectivity. The process of determining value has recently diversified due to a transition from being solely dictated by heritage professionals to a multi-disciplinary strategy. Mason admits that the process of value assessment has become recognized as a sociocultural activity, not simply a technical practice. As such the study of value is ultimately the study of context, endorsing the concept of change within the process of value assessment. Traditionally, values were articulated by experts' analysis of heritage as a record of the past. Today, they are recognized as contingent entities that are not simply found and fixed but are procured out of interaction with context. Value is customarily categorized in two ways: one kind of value predominates the consideration of others, excluding whole categories of value; or it is treated in broad terms, with all the aspects of heritage value collapsed into a single expression of significance, neglecting specificity. (Mason 2006, p. 7) By breaking down value through narrative, unique values can be categorized and appreciated as well as understood in an overall sum.

THE GETTY CONSERVATION INSTITUTE  
**VALUES OF CULTURE HERITAGE**



PLANNING PROCESS METHODOLOGY



THE CULTURAL SIGNIFICANCE/VALUE PROCESS

As outlined in Figure 1 & 2, value assessment is a central concept that dictates a site's management. Figure 2 illustrates the process of value assessment, which includes identification, elaboration, and statements of significance. In order for adaptation to be recognized in the values assessment process, it needs to be addressed in the initial stages of identification. As such, it is not the methodology that restricts authenticity to an original state but rather how value is distributed to the various elements within a site. While the field of typologies has diversified, these typologies are generally still valued in terms on an original. Mason admits that a value assessment requires a structure, yet is never perfect. (Mason 2006, p. 17) As such, the process needs to be treated holistically in terms of context.



SHINTO SHRINE, CONSTRUCTION  
THE CULTURAL PROCESS  
OF REBUILDING THE TEMPLE  
APPROXIMATELY EVERY 20 YEARS  
INSPIRED THE CULTURALLY DEPENDANT  
VALUES BASED ASSESSMENT IN THE  
NARA DOCUMENT

Many guidelines from Western governing bodies have become the controlling regulations that are used throughout international conservation practices. The first document that addressed the changing definition of authenticity was the Nara Document established by ICOMOS in 1994, which developed from the Venice Charter in 1964. Rather than being an absolute term, the Nara Document established that authenticity is based on unique cultural values. These sets of guidelines redefined the way in which the international field of conservation viewed authenticity, challenging its definition. (UNESCO World Heritage Convention 1994) While point 13 under the “Values and Authenticity” subheading lists the diversity of aspects that determine cultural values, the presence of change and adaptation is still lacking from the definition.

The complex values associated with authenticity has been broken down by the Raymond Lemaire International Centre for Conservation into a visual grid in order to better understand how various elements, both tangible and intangible, are valued as an authentic representation of culture. The multidimensional values outlined in the Nara document are broken down into aspects (remnants) and dimensions (values) in order summarize the overall authenticity of a site. (Balen 2008) While the structure of this grid does assist in evaluating where value lies in a context, it does not promote value through narrative.

## THE NARA DOCUMENT ON AUTHENTICITY

## Nara Document on Authenticity. UNESCO. 1994

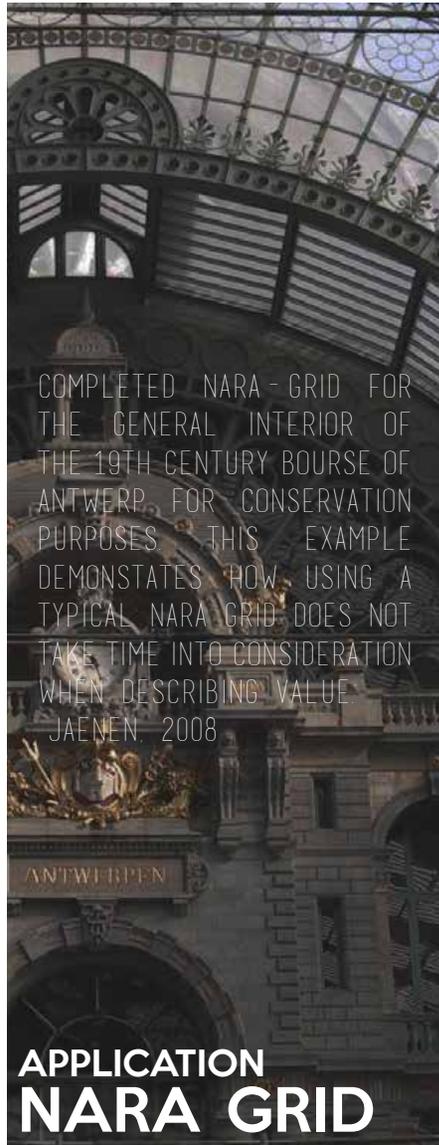
10. Authenticity, considered in this way and affirmed in the Charter of Venice, appears as the essential qualifying factor concerning values. The understanding of authenticity plays a fundamental role in all scientific studies of the cultural heritage, in conservation and restoration planning, as well as within the inscription procedures used for the World Heritage Convention and other cultural heritage inventories.

11. All judgments about values attributed to cultural properties as well as the credibility of related information sources may differ from culture to culture, and even within the same culture. It is thus not possible to base judgments of values and authenticity within fixed criteria. On the contrary, the respect due to all cultures requires that heritage properties must be considered and judged within the cultural contexts to which they belong.

12. Therefore, it is of the highest importance and urgency that, within each culture, recognition be accorded to the specific nature of its heritage values and the credibility and truthfulness of related information sources.

13. Depending on the nature of the cultural heritage, and its cultural context, authenticity judgments may be linked to the worth of a great variety of sources of information. Aspects of the sources may include form and design, materials and substance, use and function, traditions and techniques, location and setting, and spirit and feeling, and other internal and external factors. The use of these sources permits elaboration of the specific artistic, historic, social, and scientific dimensions of the cultural heritage being examined.

## THE NARA DOCUMENT & ADAPTATION



COMPLETED NARA - GRID FOR THE GENERAL INTERIOR OF THE 19TH CENTURY BOURSE OF ANTWERP. FOR CONSERVATION PURPOSES THIS EXAMPLE DEMONSTRATES HOW USING A TYPICAL NARA GRID DOES NOT TAKE TIME INTO CONSIDERATION WHEN DESCRIBING VALUE. JAENEN, 2008

## APPLICATION NARA GRID

aspects	dimensions			
	artistic	historic	social	scientific
form and design	Designed in an eclectic style including neogothic and neorenaissance style. Also an important architect.	References to the previous 16th C. Bourse. The original surface as been reused.	The vaulted interior made it possible to gather disregarding the weather.	The way of vaulting a large room wit glass and iron. Impressive iron decoration.
material and substance	The original materials are still present and in very good state.	Use of traditional 19th C. materials from regions in Belgium.		Evidence of how material can be used and decorated.
use and function	The form and decoration of the interior design followed the original function.	The interior of the Bourse shows the evolution in trade history.	The latest years the Bourse has been used for many cultural events.	
tradition and techniques	Craftsmanship in brick, natural stone, stucco and wood.	How the iron decoratively has been used.	Shows how many craftsman have worked on the whole building	A lot of evidence of 19th and 20th C. craftsmanship is still present.
Location and settings	Difference between primarily and secondary spaces.	The space concept shows how the trade in Antwerp was organised	A public connection between four streets.	Evidence of how the ground plan has been designed and used.
spirit and feeling	The beauty of the interior makes every visitor speechless.	The original interior is still present and brings people back in the 19th C.	The Bourse is a very important building in Antwerp's society.	



HQ CHI MINH CITY ADAPTION  
DEMONSTRATING ADAPTATION OVER  
TIME DUE TO CHANGES IN CULTURAL  
VALUES AND NEEDS

In order for this grid to be implemented to evaluate value over time, several changes need to be made. The variety of aspects listed in the chart is diverse and applies in various cultural contexts. It is critical however, that these aspects not simply be associated with originality but rather the evolving narrative that depicts the changing culture values in the surrounding context. The aspects should ultimately be categorized by their typology as well as their chronology. As such, the historic dimension can be removed from the list of value typologies when authenticity is considered in terms of narrative as the “artistic”, “social” and “scientific” values produce an overall narrative, which complete an overall history. By understanding how the remnants relate chronologically, it is possible to evaluate the changing values of a site’s context as an overall authentic narrative. This understanding can then be used to understand present values, which can in turn be implemented in current intervention and maintenance practices.

The following two examples of national charters exhibit the conflicting guidelines that govern the conservation of existing sites and the role that time, change and adaptation play within those conservation efforts. Both the Burra Charter and the Canadian Standards and Guidelines are examples of documents that are routinely referenced in international projects as guidelines for how to approach existing fabric, yet there is still a lack of continuity between documents on how to approach applied adaptation projects as well as an overall mistrust of the value of time within an existing site.



ADALAIDE BOTANICAL GARDENS, AUS.  
CONSERVATIVE MEANS OF  
CONSERVATION

The Burra Charter was originally conceived in 1988 as a set of guidelines and completed as a governing document in 1999. The content was later revised in an updated Edition in 2013. The wording in this document is crucial in understanding current viewpoints that demonstrate a lack of appreciation for change and adaptation. While the document does communicate that change and adaptation are realities in our existing fabric, there is a strong understanding that cultural significance and change/adaptation do not go hand in hand. There are also many conflicting lines that condemn contemporary change and adaptation while respecting past alterations as a part of a sites cultural fabric. For instance, articles 15.1-3 all indicate that change is undesirable, and yet 15.4 states that all contributions should be respected, even from different periods. (Australia ICOMOS 2013) This kind of contradiction is common in many national guidelines, especially in countries that are transitioning into more liberal views of their built heritage yet still grasping to earlier, more cautionary values. Article 21 additionally exemplifies a lack of validity for adaptation within existing sites, describing it only as a last alternative if other means of conservation such as preservation, restoration or reconstruction are not feasible. (Australia ICOMOS 2013)

## THE BURRA CHARTER

## Burra Charter. Australia ICOMOS. 1999. updated 2013

### Article 15. Change

15.1 Change may be necessary to retain cultural significance, but is undesirable where it reduces cultural significance. The amount of change to a place and its use should be guided by the cultural significance of the place and its appropriate interpretation.

15.2 Changes which reduce cultural significance should be reversible, and be reversed when circumstances permit.

15.3 Demolition of significant fabric of a place is generally not acceptable. However, in some cases minor demolition may be appropriate as part of conservation. Removed significant fabric should be reinstated when circumstances permit.

15.4 The contributions of all aspects of cultural significance of a place should be respected. If a place includes fabric, uses, associations or meanings of different periods, or different aspects of cultural significance, emphasizing or interpreting one period or aspect at the expense of another can only be justified when what is left out, removed or diminished is of slight cultural significance and that which is emphasized or interpreted is of much greater cultural significance.

### Article 21. Adaptation

21.1 Adaptation is acceptable only where the adaptation has minimal impact on the cultural significance of the place.

21.2 Adaptation should involve minimal change to significant fabric, achieved only after considering alternatives.

## THE BURRA CHARTER & ADAPTATION



CANADIAN PARLIAMENTARY WEST  
BLOCK REHABILITATION PROJECT  
ACKNOWLEDGING ADAPTATION

The Canadian Standards and Guidelines is one of the most progressive documents in terms of recognizing the value of adaptation in built environment throughout time. When compared to the Burra Charter, the wording is much more progressive and open to change through adaptation. Standards 2 and 4 both recognize changes throughout time as being a part of the historical narrative of the site. There are, however, several lines that demonstrate a hesitancy or fear of losing the past through new alterations. For instance, while “standard 2” validates changes made to a structure over time, line 3 states that not every change that has been made can be deemed important, demonstrating the subjective nature of picking and choosing historical influence. (Parks Canada 2010) This subjectivity is based on the original value and not the process of narrative. Standard 3 illustrates the concept of minimal intervention, which is used throughout the document as a means of change to a structure or site. While minimal intervention promotes the respect of past layers of sedimentation, it does not allow for a true representation of current values and requirements. Standards 5 and 6 both allow for change in terms of use and additions, only if past character defining elements are left intact. (Parks Canada 2010) When considering the structure of narrative, these guidelines still promote the importance of the past rather than allowing for valid, contemporary additions to the built environment that add to the narrative by revealing current requirements and needs.

## CANADIAN STANDARDS & GUIDELINES

## Canadian Standards and Guidelines (2003)

2. Conserve changes to a historic place that, over time, have become character-defining elements in their own right.

### Further Description

It is natural and necessary for places to evolve, reflecting changes in the community and culture of that they are a part. Places may be modified for reasons of taste, for the changing nature of their use, or to adapt to evolving conditions and technologies. Changes that mark significant changes, or that are considered expressions of their time, may be deemed to have a value in their own right. Factories and other industrial works are constantly adapted. Retaining these adaptations may be important in telling the story of changing technology or the growth of a particular industry.

Commercial and residential interiors were often changed with new ownership or passing trends.

For example, a 1950s cafeteria in a 1910 office building may have its own distinct value as part of the evolution of that historic place.

A fine old storefront that has been modernized may have lost its heritage value. However, some changes may have acquired value, such as an art-deco stainless steel over-cladding or a marquee added to a popular urban theatre. Not every change to an historic place has heritage value, but those that do should be identified in a Statement of Significance. For historic places that were formally recognized some time ago, the process of determining if there is heritage value associated with later changes is an important step in the conservation process.

3. Conserve heritage value by adopting an approach calling for minimal intervention.

4. Recognize each historic place as a physical record of its time, place and use. Do not create a false sense of historical development by adding elements from other historic places or other properties, or by combining features of the same property that never coexisted.

5. Find a use for a historic place that requires minimal or no change to its character-defining elements.

6. Make any intervention needed to preserve character-defining elements physically and visually compatible with the historic place and identifiable on close inspection. Document any intervention for future reference.

## CANADIAN STANDARDS & ADAPTATION

**In fact, what the heritage conservation community has never really protected or preserved values; the task has always been protecting and preserving the material vessels where values have been determined to reside.**

**- Gustavo Araozo**

These excerpts reveal an understanding that change is inevitable in existing sites, yet that the physical evidence of these changes is not necessarily a part of its authentic composition. The Nara Document was extremely successful in validating value-based authenticity, and today we require a revised document that substantiates adaptation as authenticity. Based on the popularity and success of adaptive reuse projects worldwide, it is essential that time is recognized as one of the fundamental markers of authenticity within the built environment. This acknowledgment would collapse the lingering conservative guidelines that still dictate how the narrative of our built environment is communicated. As a result all past remnants of change would be validated and not simply those that reflect an idealized history, allowing contemporary interventions to be free to express current values without being fearful of interfering with the past.

### **'DOMINANT'**

The new intervention overtakes the existing, disregarding context in favour of an arbitrary depiction of creativity. Narrative no longer persists

### **'DISTINCT'**

The existing and intervening aspects have equal value, yet the intervening has no relationship to the existing contextual narrative. Distinct time periods and concepts are depicted, not an overall process.

### **'INTEGRATED'**

the intervening elements are relevant to the existing context and become apart of the existing narrative. An overall process of change is revealed to understand how current values have been realized

### **'NOSTALGIC'**

The past is over valued, and as a result contemporary interventions are limited. As a result, the overall narrative remains stagnant and the site loses relevancy

<sup>1</sup> - term by author

<sup>2</sup> - sourced term

The inherent sustainable, economical, social and aesthetic benefits of 'applied adaptation' have resulted in the process becoming an increasingly implemented strategy by the building industry. Various professionals within the building industry can influence how applied adaptation is executed, which can either allow innovation to dominate over the existing, promote a nostalgic representation of the past, or truly depict an appropriate narrative of a site's context. By breaking down the process of applied adaptation into four categories it is possible to determine which technique produces the most authentic narrative of the site. These classifications will take into account 'dominant,' 'distinct,' 'integrated' and 'nostalgic' representations of applied adaptation in order to understand the most effective techniques that promote narrative.

## **2.2 APPLIED ADAPTATION IN PRACTICE**



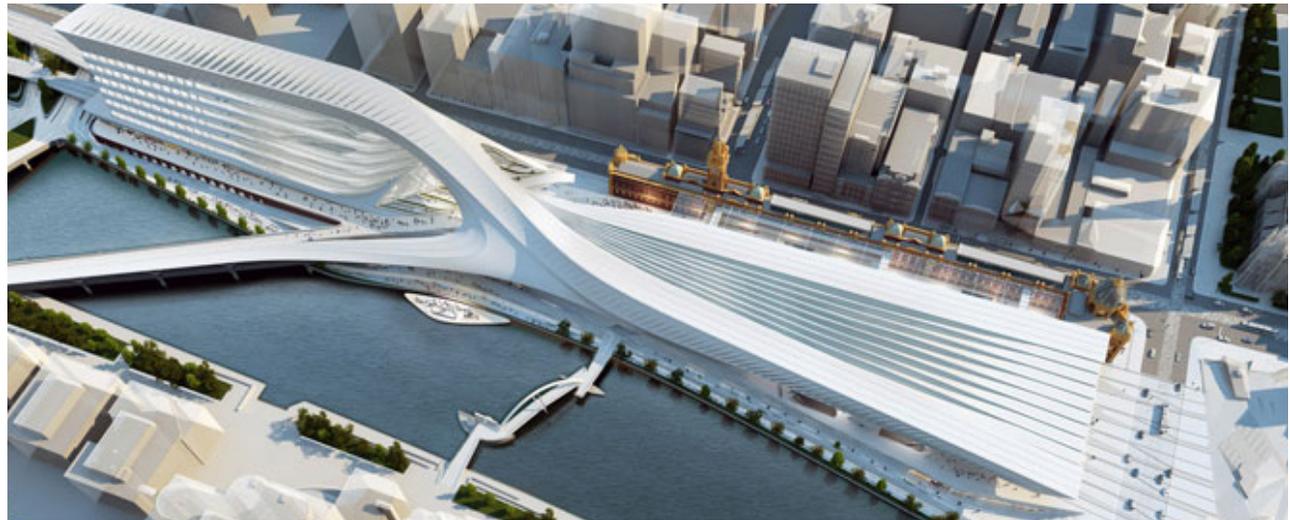
While innovation is necessary for the development of a cultural narrative, relevancy can be lost when it is not engaged by the past. In today's building industry, the innovative can be considered more valuable for a community's growth than its past remnants. When the innovative is deemed more important than the existing, the overall narrative loses an associative context, and as a result cultural identity is threatened. The valuing of the innovative originates not only from the architects and designers who continue to push the boundaries of autonomous design, but also from the developers, city officials and planners who propagate that "new" is what drives community development. While innovation is most definitely necessary to maintain a cultural narrative's relevancy, without a relatable connection to an existing context it is simply a beautiful piece of creativity, promoting globalization, over-gentrification and a loss of cultural identity. Both Zaha Hadid's 2014 Flinter's Street Station proposal in Melbourne Australia, and the facadism of the Santiago Calatrava's Allen Lambert Galleria in Toronto's Brookfield Place demonstrate the lack of cohesion when the innovative is allowed to dominate over the existing.

**DOMINANT**

FLINTER'S STREET STATION  
MELBORNE, AUSTRALIA  
ZAHA HADID ARCHITECTS,  
BVN ARCHITECTS  
2014



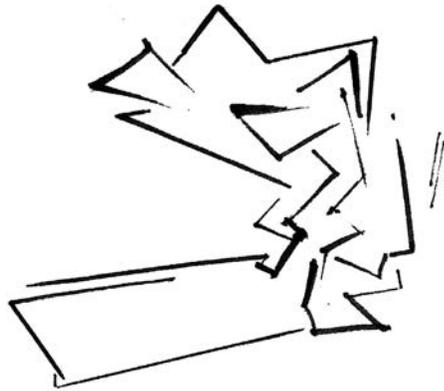
Zaha Hadid's Flinter's Street Station proposal projects her brand of hallmark computer generated forms onto a Melbourne institution, allowing the contemporary to completely swallow the surviving train station. While the project proposal discusses the significance of the existing building, the visual renderings depicting the interaction between the existing and the intervention tell a different narrative, one that is not only disconnected but extremely disproportionate. The intervening forms not only lack visual compatibility, the scale and domination of the Zaha Hadid's brand makes the existing seem trivial. Even with the restoration and visibility of the existing southern façade, the intervening form, almost three times the height, weaves its way around the heritage building, suppressing its value. (Furato 2013) The Flinter's Street Station proposal exemplifies how the domination of the innovative can trivialize the existing context.



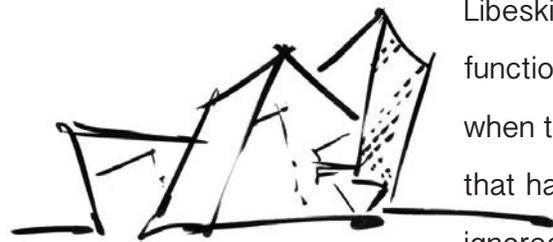
ALLEN LAMBERT GALLERIA  
BROOKFIELD PLACE  
TORONTO, CANADA  
SANTIAGO CALATRAVA  
1992



In a growing metropolis, such as Toronto, the compromise between the existing and the innovative can denigrate the integrity of the surviving narrative to make way for the “bigger” and “better”. Façadism is a popular means of maintaining a sentimental remnant of the past while the innovative is allowed to dominate. An example of this interpretation can be found in the glass and whalesbone arcade of the Allen Lambert Galleria in Toronto’s Brookfield Place. Before the dominating intervention was put in place, the block of Yonge St. between Front St. and Wellington Ave. housed a series of turn-of-the-century warehouses. A battle between the developer and city ensued in order to keep what aspects of the project, in their mind, were the most relevant. While the city pressured the developer to integrate the original structures as street level shops, Brookfield properties insisted that the original confined spaces would hamper the new intended uses. As a result, the warehouses were destroyed with only their facades remaining as “sentimental wallpaper”. Ironically, once the first tenants occupied the space, they requested that the dividing walls be rebuilt in order to bring back the inviting functionality of the original layout. New walls were ultimately built in place of those that had been destroyed on account of their uselessness. (Bohnert 2007) Overall, while the Galleria is beautiful piece of architecture, the context of the existing as well as the needs of the contemporary were not necessarily respected. As a result the existing and the new were left without a contextual narrative.



In the realm of design, the innovative eventually becomes the pedestrian, which is the case with the many instances of adaptation “branding”. What starts out as a beautiful narrative between past and present becomes a designer’s meal ticket as it is repeated over and over again in every which context. When this occurs, there is no longer a narrative that relates specifically to the surrounding context but simply one between the existing structure and the ego of the architect. Such is the case with Daniel Libeskind, whose famed Jewish Holocaust Museum (designed 1989, opened 2001) design was an inspiring example of the relationship between the sedimentation of the past and present innovation. As his brand developed, the same design elements were repeated on dozens of other projects, including the Danish Jewish Museum in Copenhagen and the Royal Ontario Museum in Toronto, the former of which was awarded the title of the “Ugliest Building of the Decade”, by Washington Post writer Philip Kennicott. This “ugliness” stems not from the design elements themselves but from the disengagement to the surrounding context. As Kennicott states, “Sure, there were a lot of Wal-Marts thrown up in the Aughts, but Daniel Libeskind’s addition to the Royal Ontario Museum in Toronto surpasses the ugliness of bland functional buildings by being both ugly and useless.” (Kennicott 2009) This uselessness develops when the architectural brand allows the designer to intervene with repeated egotistical elements that have long since been outdated. When this happens, not only is the context of the existing ignored, the “innovative” additions are deemed useless because they can no longer relate to the needs of surrounding community.



LIBESKIND CONCEPT SKETCHES

**DISTINCT**

DANISH JEWISH MUSEUM  
DANIEL LIBESKIND  
COPENHAGEN, DENMARK  
2003



Libeskind's design for the Danish Jewish Museum contains many of the same symbolic elements that were implemented in the Jewish Holocaust Museum, which have since become synonymous with his brand. Elements such as the irregular floors and walls, meant as reminder of the rocking seas thousands of Jews crossed as they fled Nazi-occupied Denmark, and the slanted shards of light cut into the wall which he claims is a reference to mitzvah, are all hallmark elements of the Libeskind brand. As such, while the space does reference the existing masonry ceilings and various social elements, it is without a doubt a Libeskind museum first, and a museum for Jewish heritage second. The narrative associated with the existing is also lacking recognition. Libeskind's intervention is located in the former Royal Boathouse built by King Christian IV in 1598, the oldest section of the Danish Royal Library. Other than the masonry ceiling, the connection to this significant existing context is limited. (Arcspace 2003) As Libeskind's brand encompasses the majority of the space, it is hard to imagine future adaptation within the space as requirements change. In reference to his design intent, Libeskind has stated "I believe that optimism is what drives architecture forward. It is the only profession where you have to believe in the future." (Libeskind 2009) His designs, however, do not allow for the future to be narrated, but simply addresses his own current expression of innovation.

ROYAL ONTARIO MUSEUM  
MICHAEL LEE CHIN CRYSTAL  
DANIEL LIBESKIND  
TORONTO, CANADA  
2009



Libeskind's intervention at the Royal Ontario Museum takes his branding one step further to an utter disregard for cultural narrative in exchange for an individual expression. Lisa Rochon of the Globe and Mail describes this branding mentality as an individual exclamation of personal experience. "...the new ROM rages at the world. This rage I cannot pretend to understand. But, it surely has something to do with losing 85 of your relatives during the Holocaust, of playing the accordion not the piano because of what the neighbors in Lodz, Poland, might say, of scribbling mad, inspired drawings in relative isolation at Michigan's Cranbrook Academy of Art, of only knowing the pleasure of building at the age of 52. Libeskind speaks often of all of this. His architecture is his Facebook." (Rochon 2007) As Siza discussed, the personal subjectivity of the architect is necessary for creation, but this subjectivity should relate to the context of the project and not the personal vendetta of the architect. Each of the five "crystals" of Libeskind's intervention, intended to represent various types of spaces, only alienate the visitor and are at complete odds with the interior exhibits. The exterior façade was initially intended to be composed of champagne glass with exposed steel beams, but was reduced to a rugged steel structure because of climatic incompatibility, producing a façade with no correlation to the new use or the existing 1912 structure. (Rochon 2007) In addition, many of the typical elements associated with the Libeskind brand are present in the ROM intervention including the angled slated windows, uneven walls and protruding jagged forms. The ROM intervention exemplifies how a narrative cannot be fabricated from a random selection of past remnants and innovative interjections that do not correlate.



According to Riceour, in order for a narrative to remain relevant, there must be a consistent equilibrium between past sedimentation and present innovation. Neither component is more valued; they merely compliment each other. The past is not put on a pedestal never to change but is used didactically as a demonstration of how we arrived to our present state. The innovative thus compliments this existing narrative, providing material that builds from the existing, allowing the narrative to continue to remain relevant. When considering applied adaption, there are various projects that exhibit narrative as a continuous process rather than as various absolute states. The intervention is not a distinct creation but rather a part of the inherent innovation of the site. Both North Adam's Mass MOCA and Toronto's Evergreen Brickworks exemplify how the process of narration can be physically represented through a site's adaptation.

## INTEGRATED

MASS MOCA  
BRUNER/COTT ASSOCIATES  
NORTH ADAMS, MASSACHUSETTS  
2010



Mass MOCA is a project that exemplifies how applied adaptation, when done in the spirit of inherent adaptation, not only produces a relevant aesthetic and function but also allows the site to acclimate to future changes. The initial project, undertaken by Bruner/Cott Associates in 2000, took an abandoned mill complex and transformed it into a multidisciplinary center for visual, performing and media arts.

Each intervention is distinctly contemporary and suitable for the complex's new use as a contemporary art gallery, allowing them to become apart of the existing site's fabric. As a result, the existing is not seen as something to be dealt with or covered up, but celebrated as the foundation that gives the museum its context (Bruner/Cott 2015). In describing his vision for the Mass MOCA's art director stated, "(We) could cover up original building features like exposed brick and support beams to hide them from view, "and put in a bunch of perfectly proportioned white boxes, and you're just in the middle of abstract Nowheresville," Thompson says later, standing in the cavernous second floor of Building 6. "We just love being able to reorient people all the time. Here's where you are. You're in a mill. You're in North Adams. You're in the Berkshires." (Goodwin 2012) His statement reiterates the value of context in our contemporary settings. While it would have been just a feasible to construct a shiny new museum of contemporary art while leaving the Arnold Print works building to either deteriorate or be transformed into a relic of past industry, the integration of the innovative with the past allowed this site to not only remain relevant, but to become one of the most visited and admired sites in America. Its continual expansion and adaptation also acknowledges the role of relevancy when maintaining the evolution of cultural narrative.

EVERGREEN BRICKWORKS  
TORONTO, CANADA  
ERA, DIAMOND AND SCHMITT, DTAH  
2010



By allowing a site's narrative to not only be expressed but also remain relevant, the site itself becomes an integral part of the community's fabric, ensuring its longevity. In a similar fashion to the interventions undertaken at Mass MOCA, Toronto's Evergreen Brickworks has transformed from a desolate industrial site to a significant, ever-evolving educational campus focused on nature, sustainability, culture, and community. The site's substance has evolved from a legacy of industry to one of community through an intervention that remains both innovative and respectful. The initial site was founded in 1889 as the Don Valley Brickworks, which became the largest and most significant brick-making company in Canada. The factory eventually became irrelevant, shutting down in 1984. Over the following decade, the 16 heritage buildings became an industrial playground for urban explorers, partiers and photographers as well as an area of environmental renewal and conservation. By 2006, the surrounding site had already been remediated through various planting initiatives while the first farmer's market and summer programming opened to the public. (About Evergreen Brickworks 2015) The resulting interventions to the industrial buildings were a part of the inherent adaptation that had gradually occurred throughout the site. As such, the various intervening elements were both extremely relevant to the various new uses and engaging with the existing fabric. Toronto based firms ERA, Diamond + Schmitt and DTAH's mandate was to implement thoughtful care of the existing while integrating innovative new additions that not only facilitated the new use but brought out the spirit of the community. (MacIvor 2010) The site and functional program have grown and expanded in the last five years, proving that by choosing to mediate in the spirit of inherent adaptation, a site can not only remain relevant but cherished in its community.



HALL OF MIRRORS, VERSAILLE

There are still numerous instances of applied adaptation where the past dictates the intervening requirements. This method of adaptation is typical in heritage sites that find their significance in a former idealized identity, which can hinder its relevancy through a lack of contemporary innovation. This mindset is present in most cultures, especially those who associate cultural identity with past values. The emphasis on the nostalgic is exhibited in two North American house museums: Grange in Toronto, Ontario and The Campbell House in St. Louis, Missouri. These sites were initially residences and adapted inherently through inhabitation and have been repurposed as various types of museums. While the former has moved past its designation as a “living museum” through a contemporary redefinition, the latter remains a valued relic of the past. It can be said that each is capable of depicting a type of narrative based on the interpretation of authenticity.

**NOSTALGIC**

THE CAMPBELL HOUSE  
ST. LOUIS, MISSOURI  
KIMBLE COHN  
1998



The Campbell House exemplifies a limiting adaptation that glorifies an image of the past. Constructed in 1851, it housed various tenants over the next century, including the Campbell family from 1854-1938. One of the character defining elements of the house is its depiction as an adapted family dwelling that exhibits traces such as a kitchen enlargement, bathroom addition and various changes in wall colour. The building became a museum in 1946, and even though its purpose was to demonstrate the qualities of a family home in the late 19th century, various restoration projects used contemporary aesthetics in combination with remaining character defining elements (Campbell House Foundation 2004).

In 1998, architect Kimble Cohn would attempt to bring the building back to an absolute point in history through an extensive restoration project. The year 1885 was chosen, not because of its significance but because it possessed the most historical information. As a result they chose to glorify a specific year in history and created an idealized copy of the site's narrative rather than embracing the remnants of this inherent adaptation. While today the site remains a popular tourist destination, it can be argued that its popularity is based on a fictitious representation of the past. This type of depiction is valid as long as its fictitious nature is recognized. When a building or site is reverted back to a supposed original, it loses its true authenticity, as it is no longer a relevant part of its context's narrative.

THE GRANGE, ART GALLERY OF ONTARIO  
TORONTO, CANADA  
1818  
LATER ADAPTATIONS:  
1966, 2008



Toronto's Grange House exemplifies a building that was treated nostalgically for many years until a recent adaptation reinvigorated its relevancy. Constructed in 1818 for the prominent Boulton family, the house was enlarged and adapted to fit the needs of inhabitation for the next century. It then became the first location of the Art Museum of Toronto, which incurred further traces of inherent adaptation to accommodate the gallery's growing collection. When the Art Museum of Toronto became the Art Gallery of Ontario in 1966, a larger building that could accommodate the prestige of the collection was built adjacent to the Grange. At that time, the home was to be restored to the 1835 period, including original furnishings. While the house was brought back to its "time of glory," its use became limited to a "living museum" due to the importance places on the historical relicts and maintaining an original context (History of the Grange 2015). While the home was open to the public as a museum and for various functions, its nostalgic interior hindered it from connecting with the growing eclecticism of its neighboring museum.

In 2008 it was decided that the preserved 1835 interior could no longer accommodate the museum's requirements, and an innovative intervention was realized that complemented Frank Gehry's reimagined AGO. This adaptation involved acclimating the interior of the space once more to house the Norma Rideley Members Lounge, implementing contemporary Danish furnishings that both compliment the heritage home and the modern aesthetics of the AGO. As a result, the preserved 1835 elements were respected while still allowing the overall space to accommodate to its new use (Jones 2015). The current member's lounge is popular resting place for visitors to enjoy a nice meal and relax in a context that celebrates the various past remnants of the Grange through a contemporary lens.



DOVECOTE STUDIOS  
HAWTHORN THOMPkins

This analysis demonstrates that ‘integrated adaption’ is the most successful method for communicating the process of narrative. The connection between past sedimentation and current innovation is fluid, describing an overall process rather than absolute states. Both Mass MOCA and Evergreen Brickworks have become relevant institutions within their community by allowing contextual values to dictate use and past remnants to inspire the physical intervention.

When applied adaptation occurs without an understanding of inherent adaptation, there is a tendency for innovation to dominate over the past narrative, producing disconnect relationships to the existing context. This disengagement can lead to over-gentrification due to a lack of relative understanding. Additionally, cultural tradition is still associated with the past, and as such there is an ongoing tendency to value a romanticized version of what once was in fear of losing cultural identity. Integrated adaption acts as median between these extreme points of view, producing relevant interventions that meet the current needs of a community through relevant innovation while celebrating the inherent process that lead to these contemporary values which are present in the physical remnants of the past.



Recognize authenticity based on unique values of the site and its surrounding culture (Nara, 1994), **but also how those values have adapted. The adaptation that is visible in remnants through time are evidence of the evolution of the surrounding culture and how it arrived to its current state. Without acknowledging the adaptive nature of culture and values, it can never be truly expressed authentically.**

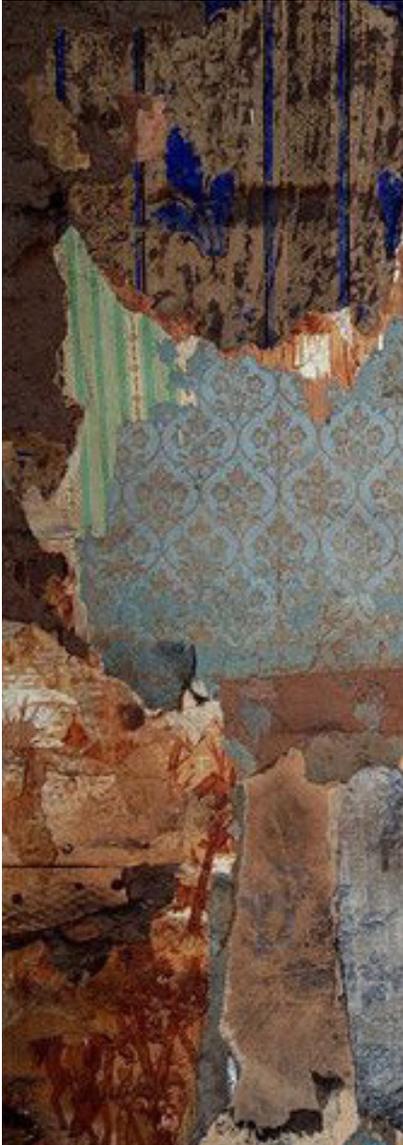
Change may be necessary to retain cultural significance, but is undesirable where it reduces cultural significance. Changes which reduce cultural significance should be reversible, and be reversed when circumstances permit. (Burra, 2013) **Change is inevitable, even when a site is under the most cautious maintenance plan. Change should be embraced as it reflects changing values and keeps that past relevant.**

Adaptation is acceptable only where the adaptation has minimal impact on the cultural significance of the place. Adaptation should involve minimal change to significant fabric, achieved only after considering alternatives. (Burra, 2013) **Inherent adaptation is unavoidable, and should be embraced as the traces of inherent adaptation narrative the evolution of a site. Applied adaptation has become one of the most utilized intervention types and consequently needs to be regarded as an appropriate means of maintaining a site's relevance.**

Conserve changes to a historic place that, over time, have become character-defining elements in their own right. (Canadian Standards and Guidelines, 2003) **All change has value, as there is a reason behind its instigation that demonstrates the principles of those who initiated it. Whether or not those values are presently relevant does not disregard its value in narrating the past adaptation and development of a site.**

Find a use for a historic place that requires minimal or no change to its character-defining elements. (Canadian Standards and Guidelines, 2003) **A new use should be relevant to the surrounding community. If inherent adaptation is used to inform the intervention, then an appropriate new use will be determined that melds with the tangible and intangible narrative of the site.**

## METHODOLOGY



Conserve heritage value by adopting an approach calling for minimal intervention. (Canadian Standards and Guidelines, 2003) **While minimal intervention is useful when trying to maintain past remnants, it can limit the quality of intervening methodology relating to current needs/requirements.**

Recognize each historic place as a physical record of its time, place and use. Do not create a false sense of historical development by adding elements from other historic places or other properties, or by combining features of the same property that never coexisted. (Canadian Standards and Guidelines, 2003) **This guideline recognizes the value of time and the falsification in nostalgia.**

**In an intervening project, the goal should be to demonstrate the process of a site, neither as an idealized version of the past nor an absolute product of the future.**

**Projection as a process should drive decision making, not finite production.**

**Fluidity between past sedimentation and present innovation should be visible through the connection between the intervention and the existing. While intervening materials and forms should be contemporary, clear distinctions between time periods and eras are less authentic than demonstrating the how each element relates to the overall process.**

**Sedimentation and Innovation have equal roles within the process of narration. As such, they should both be respected and seen as part of the process of the site, and not as conflicting forces vying for attention.**

## METHODOLOGY



C3

The methodology for applied adaption created in Chapter 2 will be implemented through an intervention of the Caid Residence of the Kasbah of Taourirt. Located in Ouarzazate, Morocco, the site is situated within the middle of a bare plateau south of the High Atlas Mountains at the convergence of the Draa and Dades Valleys. The city of Ouarzazate is named after the palm grove located at this intersection, which provided a junction for trade routes leading to the populous city of Marrakech. The city is also referred to as the “Door to the Desert” due to its current departure point for adventure tourism in the Sahara. Its location between the metropolitan cities of the North, the majestic Atlas mountains, and the vast Sahara has thus had a significant role in the site’s adaptation in use and form throughout the past five centuries. (Ekim, Percy and Ward 2013) Its current physicality narrates past events and values of the site, as well as the surrounding city and country through its structural system, composition, deterioration as well as the alterations made to its materiality, decoration and form that have developed over time. These physical adaptations are encouraged by the nature of the pise and earthen brick construction system, which are composed of a basic mixture of earth and water that allows for easy and inexpensive construction and thus promotes natural adaptation based on changes to functional requirements.

## ADAPTATION IN PRACTICE



Over time, the Kasbah developed into several sub regions based on functionality and inhabitation. These include the Stara East and West, the Caid Residence and the surrounding Ksar.

**OUARZAZATE, MOROCCO**  
**KASBAH TAOURIRT**





The Ksar, meaning fortified village in Berber, was the first region of the site to be developed and is currently the only area still actively inhabited. Physical characteristics of the Ksar are based on its residential and commercial functions as well as the Islamic and Jewish faiths that had previously made up the Berber community. The village has four gateways, referred to as “Imi”, underlining its importance to the surrounding trade routes. Each gate was named after the function or faith that it faced. These included the separate neighborhoods for the Islamic and Jewish faiths with the corresponding houses of worship, as well as functions such as harvest, community gathering, construction, water supply, and receiving guests. (Cancino In Progress) The Ksar is still inhabited, composed of a variety of residences including squatters as well as low to medium income families. Many of the residences remain Berber with Islam being the predominant religion. Due to its proximity to the tourist oriented Kasbah, the Ksar mainly houses artisanal and souvenir boutiques along with small markets for the local population. Its physicality has adapted the most to the current needs of the community without much regard to built heritage value. (CERKAS and Getty Conservation Institute 2014) As such, it clearly narrates the values and needs of the Berber community that it contains, which should be reflected in any imposed adaptation to other areas of the site.

## NARRATIVE THE KSAR





The Kasbah of Taourirt, which developed into the largest earthen fortification in the Sub-Saharan, housed not only the Caid and his family but also other various figures and functions critical to the site's overall function. The majority of formal growth occurred between 1882-1894 under the rule of Caid Hammadi. With only one entrance, or lmi, which opened up into the main artery of the Kasbah, this corridor initially led all the way to the Stara (inner town) and contained various functions that facilitated the inner workings of the expansive fortified city as well as the exterior Ksar. The functions were arranged based on class, adjacency to the Caid residence, as well as the gradual growth of the site. These functions included the keeping of animals (camels, horses, donkeys, etc.) housing for gatekeepers, slaves, cooks and servants, shops, crop storage, accommodations for visitors (religious leaders, merchants, criminals on trial) a courthouse, stable and workshops. Caid Hammadi required accommodations for his relatives, thus there are many apartments and homes that were created over time to house both family members and their servants. Decoration, size and proximity to the Caid residence reveal their status and importance. (Cancino In Progress)



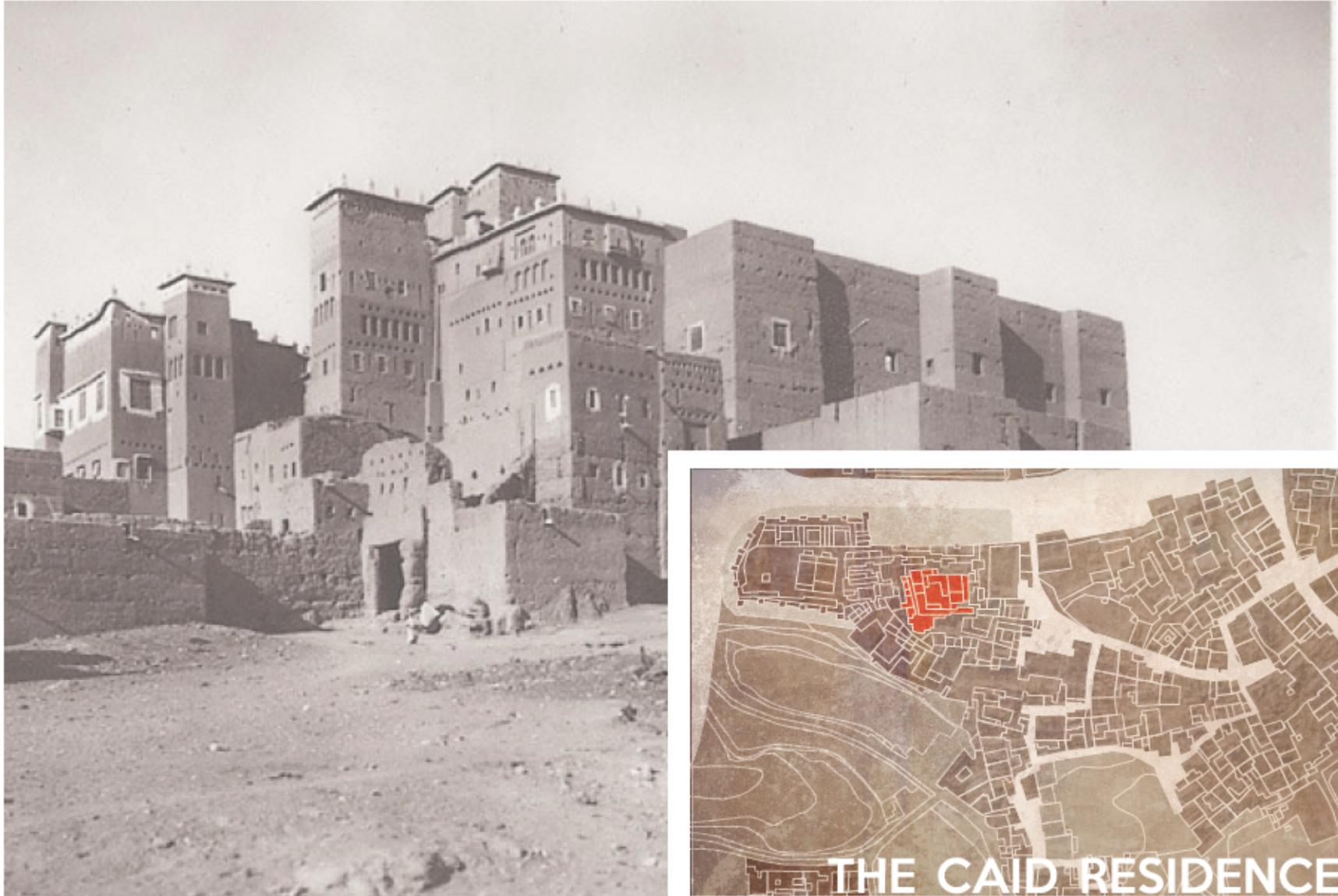
Due to the collapse of the Gaoui power in 1950, the Kasbah fell into disrepair and deterioration. Squatters, who inhabited the Stara between 1980 and 2010, added additional alterations. In 1989, the Centre for Conservation and Restoration of Atlas and Subatlas Architectural Heritage (CERKAS) relocated to the Kasbah and undertook several restoration and rehabilitation projects. The first, which took place in 1989, utilized traditional material systems as a means of restoring areas of the Stara to a supposed original state, with new uses including CERKAS's administrative offices, a library for the local community, an amphitheater, and a museum. Traditional construction methods were not only used to stabilize the structure, but also rebuild and resurface the entire facade. Intervening changes included the re-plastering of the interior and exterior walls, the addition of painted cement and ceramic tile floors, recreation of architectural woodwork and roofs, installation of plumbing and electrical services and the closing of several open air spaces. The resulting intervention was successful in stabilizing the structure, however the narrative of the site is unclear due to the amalgamation of various layers of sedimentation into an indecipherable mélange. The functionality of this intervention has not been completely successful, as many of the rooms have been left empty and unused. The amphitheater and the collection of small rooms surrounding the CERKAS offices are rarely used and thus the maintenance and sustainability of structure is a challenge. (CERKAS and Getty Conservation Institute 2014)

## **CURRENT STATE THE STARA**



Currently, a second intervention has commenced in the Stara, scheduled to be completed by Spring 2015. Again, the intervention theory and methodology aim to revert the structure, form and aesthetic back to a supposed original state through referring to historical photos and oral history. Various elements have been removed that were added after the “desired state” and new elements are being added in order to exemplify an earthen Kasbah of the late 19th century. The overall aesthetic miscommunicates the narrative of the site as the layers of sedimentation have been amalgamated into an overall composition. Other additions have been added as a means of changing the functionality of the Stara, however the functions have not yet been decided. By completing the intervention without a concrete functional program positive reuse is not promoted, leaving the site at risk for neglect. (CERKAS and Getty Conservation Institute 2014)

## CURRENT STATE THE STARA





HISTORICAL PHOTOS, CAID RESIDENCE

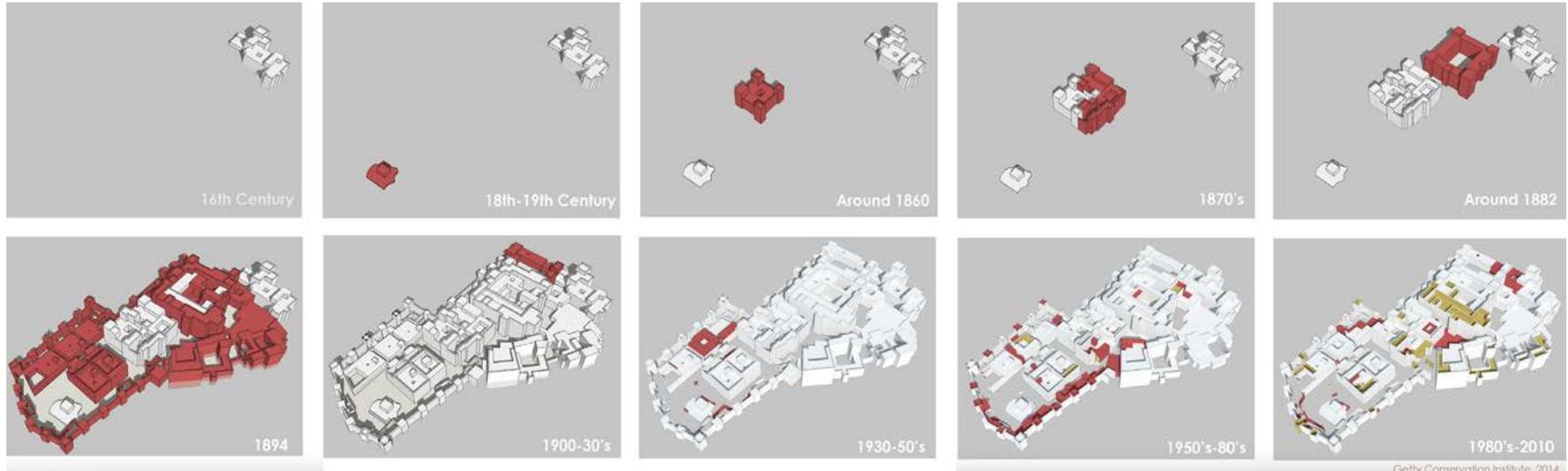
The inner fortress of the Kasbah, known as the Caid residence, housed the Caid and his immediate family. While there were several Caids who ruled the region of Taourirt between 1600 and 1956, Caid Hmadi, who inhabited the site between 1860 and 1939, conceived and erected the majority of the residence based on his requirements. The largest individual structure within the Kasbah, it was constructed in a square plan with a double wall system and four corner towers. The highly decorated towers presented an imposing presence into the adjacent public square. The Caid Residence contained two entrances, one for the family and one for workers and slaves. There were initially two main working courtyards that were used for various functions including cooking, storage of meat, and service areas for animals, grinding mills and ovens. Additional functions included a granary, hammam, prayer room and kitchen. The Caid and his sons inhabited the perimeter towers, while his wives and daughters occupied the spaces around central courtyard, known as the Maison du Tissage (weaving house). Overall, the Caid residence exemplifies the form and decoration associated with power of a great ruler. (Cancino In Progress)

## SEDIMENTATION THE CAID RESIDENCE

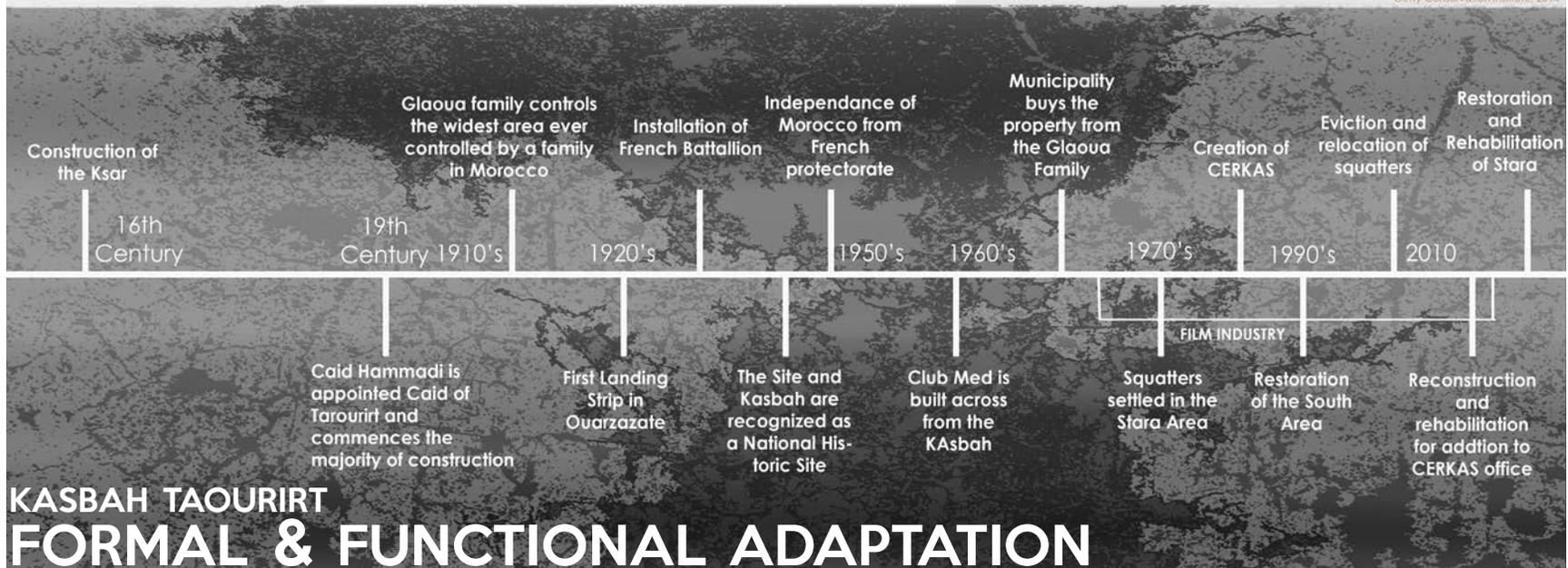


Presently, approximately 60% of the Caïd residence remains unrestored and in critical condition, while the additional space had previously been restored as a museum in the 1995 restoration by CERKAS. The museum contains identical intervention methodology that was implemented in the Stara, with several other additions including wooden ceilings painted with the intricate patterns traditionally found in Marrakech. The museum lacks exhibits and simply contains empty rooms through which self-made tour guides construct a fabricated historical narrative to make sense of the empty spaces.

## CURRENT STATE THE CAÏD RESIDENCE



Getty Conservation Institute, 2014

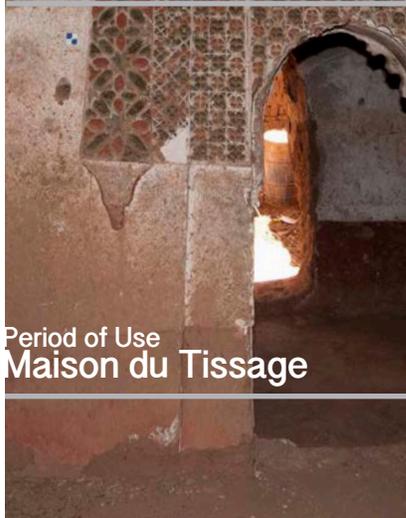


# KASBAH TAOURIRT FORMAL & FUNCTIONAL ADAPTATION

see appendix a for full history



Pre – 1930 Evolution

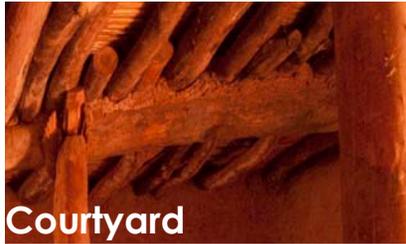


Period of Use  
Maison du Tissage

While the main structure of the Caid Residence was conceived and constructed in the 1880's by Caid Si Hammadi, various adaptations occurred during his rule as his role, power, and family developed. As previously stated, the "Gri Ignidar" system of defense was initially implemented in the form of a double walled, square plan layout. It is probable that various additions to this basic layout were made throughout the following 50 years, both to the interior of the structure and outside the double walls. One of these additions was the Maison de Tissage, whose adobe brick construction is inconsistent with the pise walls of the original structure and is poorly connected to the structural walls. Additional alterations are most noticeable on the Western façade as the original double wall is now incased between both an exterior and interior series of rooms. These additions were most likely due to the growth the Caid's extended family.

The Maison du Tissage is a two storey section of the Caid Residence built predominantly of adobe brick, and is therefore distinct from the primarily pise walls of the Caid Residence. The rooms contain arches decorated in painted molded plaster as well as additional wall paintings. The decoration, which is inconsistent with the rest of the Kasbah, is based upon its former function as the woman's quarters. The first floor was primary use for cooking while the second floor was for gathering. Additions to the decoration can be attributed to past film sets. (Cancino In Progress)

## CAID RESIDENCE FORMAL & FUNCTIONAL ADAPTATION



Courtyard

The courtyard which, based on historical photographs, was intended for reception, public use as well as the housing of animals. While its form has changed over time due to various instances of collapse, it is the space that connects all hierarchal areas of the Caid, as well as the external activities to the intimate ones of the interior. (Cancino In Progress)



Granaries

Moroccan Kasbahs and fortified cities often contain graneries, which are storehouses for articles ranging from thrashed grains to valuable gems. The Caid contains two granaries, one constructed in 1880 and one evidently added later due based on the method of construction. The earlier granary is composed of wooden columns supporting a hewn log roof resting on carved wooden capitals in typical of Berber design. The later room features square columns surrounding a central light well, white washed pointed arches and Tataoui ceilings. (Cancino In Progress)



Borj Lalla Ftoum

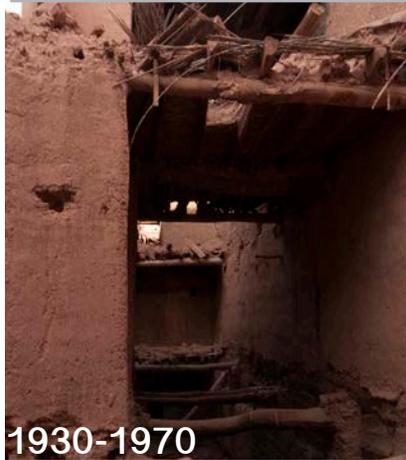
Further South lies the private four storey residence of the Caïd's wife known as Borj Lalla Ftoum, each floor demonstrating a unique construction typology with the first in pise, the second composed of pointed arches, the third of square pilasters while the forth displays high level of decoration consistent with that in the Maison du Tissage. (Cancino In Progress)

## CAID RESIDENCE FORMAL & FUNCTIONAL ADAPTATION



Additional Rooms

The western side of the Caid residence contains six rooms, which were originally roofed and subdivided, serving as an alley connecting the main entrance to the rest of the Kasbah. The presence of drainage channels and erosion due to exposure along the interior wall indicate that these rooms were once added later. Another series of corridors runs along the south portion of the Caid, constructed of pise and little decoration. (Cancino In Progress)



1930-1970

The period between 1930 and 1950 shows little change to the physicality of the Caid Residence as it remains continuously inhabited. The independence of Morocco in 1956 is the initiation of deterioration within the Caid Residence due to abandonment and lack of maintenance. Aerial photographs taken in the 1960's depict this considerable deterioration, including the collapse of several internal spaces, the roofs of the granaries, as well as the roofs that form the western edge of the Caid residence. Photographs taken in the 1970's show additional collapse of the rooms in the southwest corner of the residence. (Cancino In Progress)



1970-2014

During this period, several roofs have been reconstructed, however the majority of changes to the structure are in the form of further collapse and decay. The current instability of the site and its consistent abandonment has resulted in incremental collapse, especially during seasons of high rainfall. (Cancino In Progress)

## CAID RESIDENCE FORMAL & FUNCTIONAL ADAPTATION



constructing traditional pise in formwork

While Kasbah Taourirt was constructed in various stages for various purposes, the construction system has remained consistent for the past five centuries. The main construction technique for load bearing walls is pise, or rammed earth, while additional floors and decoration is composed of Adobe Brick. The methodology of these construction methods have persisted with the advent of new building technologies, and while there are instances of the addition of new materials such as cement and tile in some of the recent contemporary interventions, the traditional building techniques are still routinely being implemented. (Cancino In Progress)

Pise, or rammed earth, is a very simple construction method that involves creating a mixture of water and earth, which is compacted and dried to produce solid walls that range from 60-80cm in width. The particulate nature of the earth as well as the volume of water creates various consistencies for numerous applications including wall structure, mortar and plaster. Foundations are generally composed of large stones with pise mortar, while additional wooden joists are added to corners of structural walls for additional support against loading. (The Earthen Architecture Initiative 2015)

## TRADITIONAL EARTHEN CONSTRUCTION <sup>PISE</sup>



ADOBE BRICKS DRYING



LAYING ADOBE BRICK



CONSTRUCTING COLUMNS

Adobe brick possesses the same composition as pise, however the compact nature of the individual units allows for thinner walls as well as openings, stairs, columns and further decoration. Bricks are generally fabricated on site in two sizes (20/40/10cm and 12/20/7cm) in an open grid mold, which guarantees size consistency. The mold is then removed so the bricks can dry and the bricks left in the sun for several hours, turning once, and then placed in the shade to avoid cracking. They are then positioned within the wall system, in various course types depending on the usage, contained with earthen mortar. Details such as arches and alcoves are created from brick placement and thus have consistent dimensions throughout the entirety of the site. Traditional tools such as trowel, plumb line and level are used in the assembly process. Earthen plaster composed of local earth and straw is layered over the brick to create a smooth finish. Structural columns are additionally constructed out of adobe brick and are constructed in consistent dimensions of 80x80cm, with consistently alternating courses that maximizes strength. (The Earthen Architecture Initiative 2015)

## ADOBE BRICK TRADITIONAL EARTHEN CONSTRUCTION



EUCALYPTUS BEAMS



LAYING REEDS



CREATING TATAOUI CEILINGS



TATAOUI CEILING (LEFT)  
ROUSEAUX (RIGHT)

In collaboration with the earthen system, the Kasbah employs a flooring/ceiling system that not only divides vertical space but also provided the necessary stability for the earthen walls. It is a three-tiered system composed of beams, joists and reeds in conjunction with a layer of earth and lime waterproofing. The principle beams that make up the floor's frame are typically constructed from eucalyptus 20 cm in diameter. These beams are spaced approximately 55 cm apart, resting on an additional piece of wood rather than directly on the earthen wall to avoid excess loading. Joists are then laid upon the beams in a perpendicular direction, with the reeds providing the final finish for the ceiling below. Reeds can be laid in several patterns depending on the complexity and level of detail required in the room. The patterns are typically reeds running straight across for rooms of general function (Roaseaux) and Laurel wood arranged in triangular patterns for rooms with a high level ceremonial function (Tataoui), which can be painted for additional aesthetic. Additional false ceilings can be found throughout the Kasbah that are composed of a double Tataoui layer and covered in plaster. Once the reeds have been secured with twine, they are covered in a form of waterproofing, traditionally lime plaster or the contemporary implementation of plastic sheets. A thick layer of adobe is the final layer of the flooring/ceiling system. (The Earthen Architecture Initiative 2015)

## FLOOR STRUCTURE



WALL PAINTINGS, MAISON DE TISSAGE



TYPICAL BERBER SYMBOLS

Decoration of the Earthen Kasbah's of Southern Morocco gained inspiration from the Islamic Berber geometry of the North, as well as the Hispanic/Moorish motifs of Mediterranean Islamic Architecture. This inspiration is apparent in both the exterior and interior decoration of the Kasbah de Taourirt. (Wong 2014)

These motifs and intricate details are generalized and reimagined due the constrictive nature of the adobe brick. As such, all of the decoration is a generalized version of the intricacies of the North. The cornices that adorn the parapets are unique to southern Berber Kasbahs and embraces the concept of the cornice which is present on Northern yet utilize the geometric nature of the adobe brick. The Kasbah originally contained strips of painted plaster, which emphasized areas of high decoration. Windows were additionally framed in plaster with wooden fenestration, latter replaced by wrought iron. (Bianca 2000, p. 27)

The interior decoration is mainly located in the Caid Residence and contains traditional symbolism of Berber culture. The Maison de Tissage contains wall paintings and plaster decoration that exhibit simple symbolic depictions that illustrate the potential use and hierarchy of the space and its inhabitants. Typical Berber patterns include twisted lines, stars, diamonds rectangles, crosses and dots. Triangles are commonly used as they are considered to be effective protection against the "evil eye." Lozenge and diamond patterns are additionally common, referred to as eyes, represent concepts of fertility and abundance. (Wong 2014)

## DECORATION



The condition assessment developed by the Getty Conservation Institute of the Caid Residence in 2014 established that the structure is in a poor state, with several regions in fair conditions. This deterioration was initiated by the abandonment of the site, and accelerated by the failing secondary systems within the structure, resulting in the initial deterioration of the earthen structure. (Cancino In Progress)



The Maison du Tissage is in danger of collapse due to its later construction and poor integration with the earlier pise walls. Many of the structural arches contain extensive vertical cracks and exhibit separation between the adjoining walls. Each of the arches is exhibiting sag while two have previously collapsed. Several roofs have also collapsed, resulting in increased moisture and debris, with evidence of past repairs accomplished with inappropriate materials. The first floor is currently overwhelmed with a build up of debris, increasing the floor height by approximately 1.5 meters. All but one of the Western rooms adjacent to the courtyard have collapsed, exposing the interior wall paintings to the elements. An infestation of bats in these spaces has caused a build up of feces as well as damage to the plaster and wall paintings. (Cancino In Progress)

## CAID RESIDENCE CONDITION ASSESSMENT



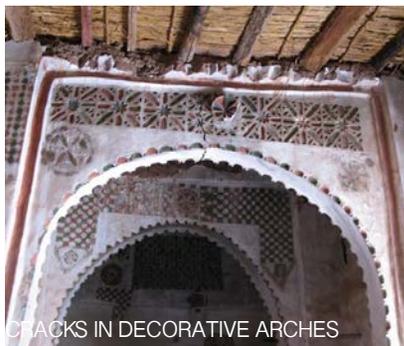
ORIGINAL GRANERY

The two granaries of the Caid Residence contrast greatly in their current condition. The original granary is in good condition, with the wooden columns, capitals and roof intact thus insuring the stability of the earthen structure. The later granary has suffered collapse in the northern most corner, causing a buildup of debris in the light well. Additional conditions include the collapse of the main staircase as well as the deterioration of the traditional Tataoui ceiling, some of which has been repaired in Rauseaux. Bats continue to be a problematic condition in this area. (Cancino In Progress)



LATER GRANERY

The Western and Southern portions of the Caid Residence exhibit pise walls in good condition yet contain instances of deterioration in the secondary systems including collapsed roofs, a buildup of debris, excessive moisture. The Borj Lalla Ftoum tower also exhibits these conditions with collapsed intermediate floors and roofs, resulting in water penetration and consequently the rapid deterioration of the general structure and collapse of the faux ceilings. (Cancino In Progress)



CRACKS IN DECORATIVE ARCHES

While the site presents various conditions, it is evident that without stabilization and intervention, the secondary and primary structural systems will continue to degrade at an increased rate. As this deterioration has been a continual process for the last half century, it has become apart of its character and significance. As such, both a stabilization and reuse intervention are required to ensure the subsistence of the site, yet the deteriorative nature of that is currently present should be integrated in the intervention. (Cancino In Progress)

## CAID RESIDENCE CONDITION ASSESSMENT



The process of determining value throughout Kasbah Taourirt was first undertaken in collaboration between the Getty Conservation Institute, members of CERKAS and the local municipality of Ouarzazate. The resulting list of values were categorized under the following categories: architectural/aesthetic, historical, social/anthropological and economic (see appendix B). This exercise introduced the notion that value doesn't have to pertain to one era, but rather should reflect the development of the surrounding community. While the list of values produced during this exercise does start to prescribe value as it pertains to inherent adaptation, the choice of character defining elements and the elements currently being retained in interventions throughout the site do not reflect these time-based values. The following chronological nara-grid and character defining elements chart establish the elements that should be retained in order to maintain an authentic narrative of the Caid residence.

## CAID RESIDENCE VALUE ASSESSMENT

The rearranged nara-grid allows value to be assessed as a process through time rather than as absolute state. The various aspects are arranged based on their value and chronological relationship to other aspects. As a result, value can be established as a process and ultimately relate to the current needs of the site's context.

aspects	timeline					contemporary requirements
	1860-1900	1900-1940	1940-1970	1970-2014	Present	
form & design	square plan with a double wall system and four corner towers	abandoning square plan for room distribution; greater decoration both interior and exterior	initial deterioration causes certain formal areas to change due to collapse	circulation to the caid residence is reduced to one entrance; increase deterioration leads to collapse of certain areas; film set added temporarily	rapid deterioration leads to significant collapse resulting in changes in form and circulation	stabilization to maintain existing; contemporary intervention to integrate a new use
material & substance	earthen brick and pise, decorative bamboo ceilings	earthen brick and pise, decorative bamboo ceilings; addition of plaster walls and decoration	material and structural deterioration commences	temporary walls employ plaster and local wood; ceilings rebuilt in traditional materials; contemporary waterproofing (plastic)	material and structural deterioration continues; temporary stabilization techniques (wooden beams, plastic sheets) are implemented	retention of all material aspects of earthen architecture from construction to deterioration; integration of materials from cultural material palette in a contemporary framework; all new materials should be compatible with existing
use & function	residence for Caid Hmmedi and his family	additional functions such as service areas and food storage were added to accommodate the growing Glaoui	site is designated a national historic site; the site is sold to the city	film set; squatters; abandonment	abandonment	a new use should reinvigorate the site by initiating relevant functions that meet the current needs of the community and allow to adapt to future needs
tradition & technique	traditional earthen construction with eucalyptus structure and reed ceilings	traditional construction techniques are improved in order for the kasbah to grow	traditional earthen techniques and maintenance practices are abandoned	traditional techniques are starting to be reintroduced for several acts of rehabilitation	temporary stabilization techniques that assist in stabilizing the existing to reduce rapid deterioration	traditional techniques should be celebrated through the existing remnants and maintenance practices. New interventions should reflect current traditions to become an authentic piece of the cultural narrative
location & setting	link to trade routes relationship to the other buildings within the kasbah	French military battalion posted in Ouarzazate; Caid at height of his power	Ouarzazate becomes a tourist destination (gateway to the Sahara); Glaoui family loses its power	the film industry invades the area; tourism increases; Ouarzazate grows exponentially in population	community growth lack of community involvement in the site	the surrounding community needs to be reintroduced to the site to ensure a sustainable intervention. The current values of the context should be reflected in the new use and physical intervention
spirit & feeling	cultural identity displayed in the traditional earthen structure and form	largest example of earthen architecture in the region, demonstration of Berber culture	national recognition represents a desire to preserve an important piece of Berber culture	desire to preserve site's significance	nostalgic representation of Berber traditions	the overall feeling of the space should be one that honours the past but enables a relevant contemporary use
value	physical representation of power	height of Berber decoration		film industry	recognition of the importance of the wall	current innovation reflecting contemporary cultural expression; provide a space where artistic expression is encouraged
artistic	social dynamic of Berber rule	power of the Caid and the French coalition	political and economical shifts	economics shift to tourism and film	recognition of the significance in the existing structure	the existing should reflect the change in social value; the contemporary should reflect current social values and add to the overall narrative, not overtake it
social	plan and construction of the earthen kasbah	transition to western practices	deterioration of earthen structure	restoration techniques are implemented	stabilization techniques	there should be an appreciation of the existing construction techniques with an integration of contemporary methods
scientific						

## CHRONOLOGICAL NARA-GRID



CONTEXT			MATERIAL			CONSTRUCTION		
surrounding natural elements	earth	fortified walls	surrounding community	eucalyptus wood	eucalyptus wood	relationship to Ksar	bamboo reeds	adobe brick
situation within kasbah taourirt	wrought iron	ceiling/floor system		pime plaster				
DECORATION			DETERIORATION			CIRCULATION		
wall paintings, in all instances	collapsed roofs	entrance	plaster decoration	weathering of earthen construction	connection to the kasbah	plaster arches	patina	
moorish motifs created from adobe bricks			props from filming					

CHARACTER DEFINING ELEMENTS  
**REMNANTS OF PAST NARRATIVE**



CERKAS's role is to rehabilitate and develop the earthen architecture and architectural heritage of the sub-atlas in collaboration with the concerned authorities. As such, since 1989 their role has not only been to rehabilitate the Kasbah but also reestablish a use that reflects the needs of the surrounding community. As a part of their initiative, CERKAS attempts to establish programs that safeguard federal earthen building and architectural ensembles, understand local the local traditional associated with the Earthen sites and reestablish their roots, publish and disseminate information on the architecture of Southern Morocco as well as collaborate on comparative studies on the architectural practices of the sub-atlas and establish relationships with national and international institutions that have similar conservation criteria. Their rehabilitation methodology is consistent with the romantic restoration philosophies of the 19th century, attempting to rebuild the earthen structure as a complete nostalgic idea (see appendix C). (CERKAS and Getty Conservation Institute 2014)

**STAKEHOLDERS**  
**CERKAS**



The Getty Conservation Institute's mandate is to develop a methodology for the conservation and rehabilitation of the traditional earthen architecture ensemble, which will be used as a model for similar earthen sites in the region. The process is broken down into the following categories: documentation, rehabilitation planning, analysis of earthen materials and appropriate conservation approaches. By establishing a conservation and rehabilitation plan of the site, the Getty hopes to in turn establish an overall strategy that respects the original building fabric, preserves the technical fabric, institutes appropriate reuse interventions, and connects with local organizations to ensure cultural cohesiveness and sustainability of the intervention. The goal of the rehabilitation plan is to create a strategy that combines the Getty's knowledge and experience in site assessment, material understanding and project management with the local cultural ideology and regulations. As such, the Getty Conservation Institute acts as a project mediator between the multiple stakeholders of the site, their main intervention methodology consistent with contemporary conservation practices promoting values based decision making while establishing new and sustainable uses through minimal intervention. (The Earthen Architecture Initiative 2015)

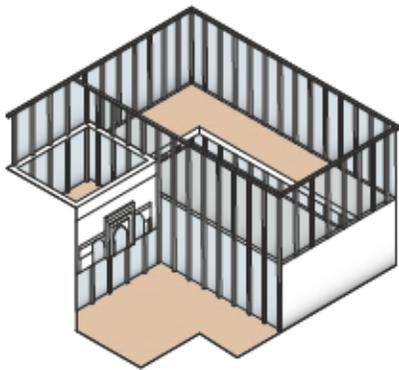
**STAKEHOLDERS**  
**THE GETTY CONSERVATION INSTITUTE**



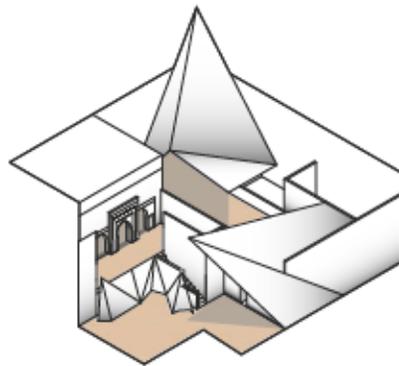
The intent of the proposed intervention is to reestablish an appropriate use that compliments the Caid residence's existing narrative while addressing the needs of the surrounding community and allowing for future adaptation. The methodology will follow the characteristics of 'integrated applied adaptation', as a means of adding to the inherent adaptation of the site and producing an authentic depiction of cultural identity.

## DESIGN INTENT

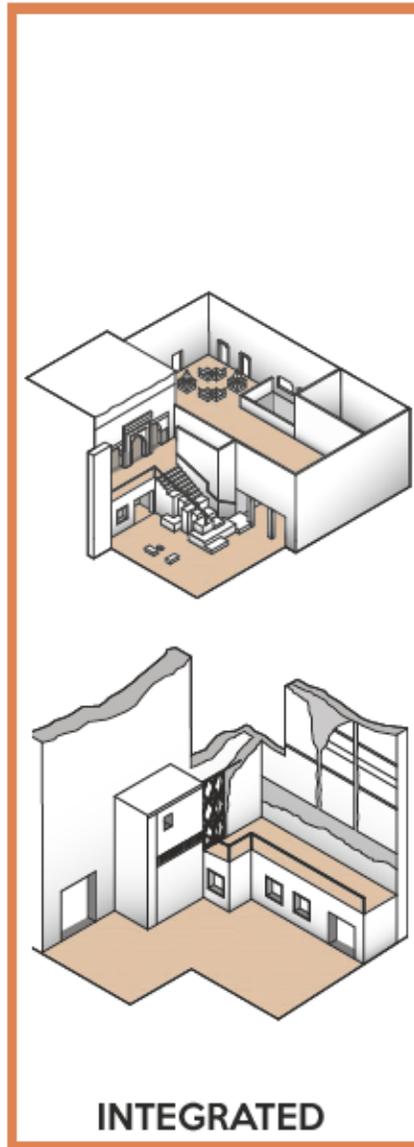
The following sketches exhibit how the various adaptation typologies could be prescribed to the Caid's courtyard. The characteristics of integrated adaptation will be applied to the site in more detail.



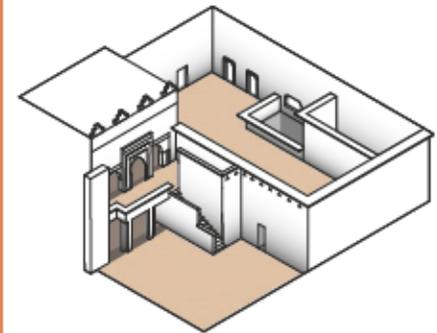
**DOMINANT**



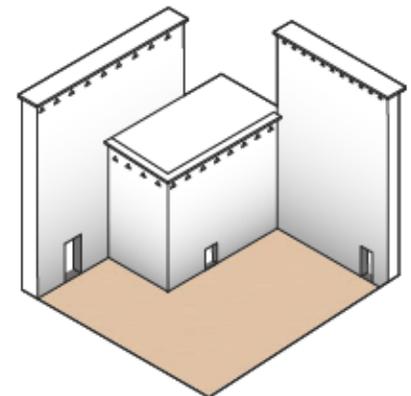
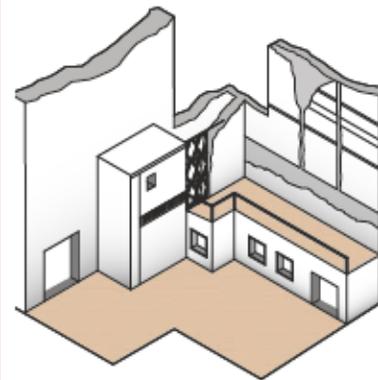
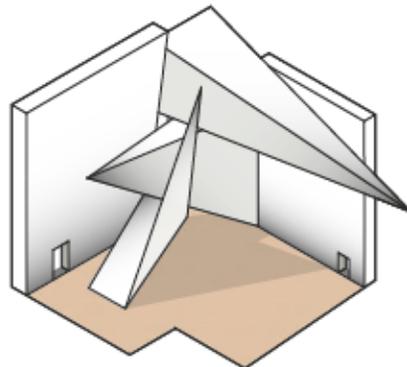
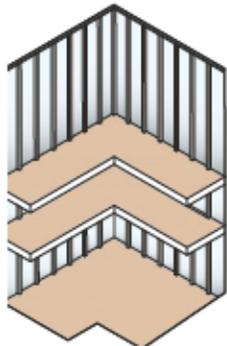
**DISTINCT**



**INTEGRATED**



**NOSTALGIC**





The Caid residence remains one of the only areas within the site without a prescribed function. Based on functional program suggested for the overall site and the proposed functions provided by CERKAS and the Getty Conservation Institute, the Caid Residence's functional program will be twofold. First, it will reintroduce Ouarzazate's community by providing an overall community meeting place for cultural events and public gathering. Second, it will act as an Educational Center for Earthen Architecture for professionals and visitors. Both programs require similar spaces while engaging various demographics that will help to sustain its relevancy.

## KASBAH OF TAOURIRT FUNCTIONAL PROGRAM



Not only is the recognition of cultural, economic and sustainable value of earthen architecture an ongoing global effort, so is the implementation of proper building practices and conservation. Since 1979, CRAterre, the International Center for Earthen Architecture, has worked towards “the recognition of earth materials as a valid response to the challenges linked to the protection of the environment, the preservation of cultural diversity and the fight against poverty.” (UNESCO 2015) Many of the objectives set out by CRAterre are based on the dissemination of expertise to professionals and communities, which is accomplished through various courses and programs including a post master DSA, a PHD program in earthen architecture as well as additional graduate programs, seminars and professional training programs. Each program is based at the Grenoble Institute of Urbanism of Pierre-Mendes-France University with satellite field locations. While each program differentiates in length and overall requirements, hands on experience is a fundamental aspect of the learning process. (UNESCO 2015)

## TAOURIRT EARTHEN CULTURAL CENTER FUNCTIONAL PROGRAM



Both the structural and compositional characteristics of the Caid residence and its overall context would provide an appropriate satellite campus for CRAterre's initiatives through its didactic physicality and collaborative community. CERKAS's partnership with CRAterre on various projects including instructive manuals regarding suitable conservation practices for earthen architecture would support such collaboration. By allowing such a program to be instilled within the Caid residence, it would not only allow the space to be reinvigorated by a program that would cherish and respect it but it could also educate about deterioration construction techniques and cultural prominence through its physicality. While this function may not be used year round, it can provide a permanent satellite institute for CRAterre's initiatives and other programs who wish to disseminate the value of earthen architecture.



## TAOURIRT EARTHEN CULTURAL CENTER FUNCTIONAL PROGRAM



The local Berber culture that encompasses the Kasbah de Taourirt should not only be represented through the physicality of the site but also through its other various cultural expressions. The area is rich in both traditional cultural mediums such as ahwash dancers and musicians, the art of storytelling, poetry as well as contemporary musicians, dancers, and theatrical performers. In order to ensure the longevity of the site, it is integral that the surrounding community be incorporated through a relevant function. As such, the second proposed function is a center that would allow for the dissemination of traditional and contemporary culture as well as discourse and collaboration within the local community. (CERKAS and Getty Conservation Institute 2014) By providing open public spaces that promote public gathering typical in Moroccan squares, private meeting rooms for local groups and exhibition spaces for the community works, the Caid residence can related back its role as a prominent institution in Ouarzazate's community through a contemporary lens.

## **TAOURIRT EARTHEN CULTURAL CENTER FUNCTIONAL PROGRAM**



The new functions will be executed by stabilizing the existing structure through the implementation of innovative elements. The existing structure will act as the palimpsest of the overall site's narrative while the new elements will not only stabilize the existing but also reflect the contemporary context. The existing structure will offer occupants an overall understanding of earthen architecture in terms of its structural composition, assembly and deterioration by not only maintaining but celebrating the inherent adaptation that is physically represented. Traditional maintenance techniques should be retained in areas that only require repair in order to demonstrate the maintenance required for earthen sites and exhibit traditional building techniques. New elements will facilitate contemporary functions and requirements but still allow the existing to be communicated. Both the existing and contemporary elements will produce a narrative that communicates the evolution of the site, not simply as points in history but as a cohesive narrative through time.

## **TAOURIRT EARTHEN CULTURAL CENTER FUNCTIONAL PROGRAM**

One of the main programmatic elements is the addition of public spaces that promote communal gathering and sharing. By allowing the various open spaces throughout the Caid to be used for public gathering, it will encourage rejuvenation and appreciation of the site as well as encourage future adaptation. As stated by Landscape architect Martha Schwartz, “Public spaces, whether commuter suburbs, or a mixed use street plaza, govern the rules we employ against each other. Cultural change happens in public space, not when we are sequestered and ghettoized (Schwartz 2013).” By employing public spaces throughout the site in various areas, future adaptations and requirements will evolve and allow the Caid residence and overall site to sustain a relevant narrative. The spaces will include whimsical formal abstractions from Moroccan culture to encourage intermingling. These spaces will also include a small café where locals and visitors can rest and interact, enjoying the context.

Spaces such as classrooms, exhibition spaces and offices will require minimal additions. Such spaces will incorporate

stabilization techniques combined with overall repairs and maintenance. Floors will be painted or laid with tile or to ensure safety and reduce wear, while walls will remain untreated to reveal the nature of the earthen material. Areas containing significant wall paintings and architectural characteristics, such as in the Maison du Tissage, will be stabilized, with minimal interventions to bring about their new use. These spaces will cross over between both functions, providing intimate areas for local or visiting groups to interact.

Laboratories and workshops will be implemented in areas where the characteristics of earthen architecture such as structure, materiality and deterioration are best displayed. These spaces will mainly require leveled floors and additional roof structures. These areas will be programmed for educating professionals, tourists and locals to disseminate a complete representation of earthen construction.

## **TAOURIRT EARTHEN CULTURAL CENTER FUNCTIONAL PROGRAM**



LABORATORIES



ADMINISTRATION



MEETING ROOMS



CAFE KITCHEN



OFFICES



OPEN GATHERING

-  TIME JUNCTION DETAILS
-  PROGRAMMATIC MOMENTS



# FLOOR 1



OFFICES



CAFE



LABORATORIES



MEETING ROOM



EXHIBITION SPACE



OPEN GATHERING

- TIME JUNCTION DETAILS
- ◆ PROGRAMMATIC MOMENTS



# FLOOR 2



MEETING ROOM



OPEN GATHERING

- TIME JUNCTION DETAILS
- ◆ PROGRAMATTIC MOMENTS



## FLOOR 3



OPEN GATHERING



- TIME JUNCTION DETAILS
- ◆ PROGRAMATTIC MOMENTS

# FLOOR 4



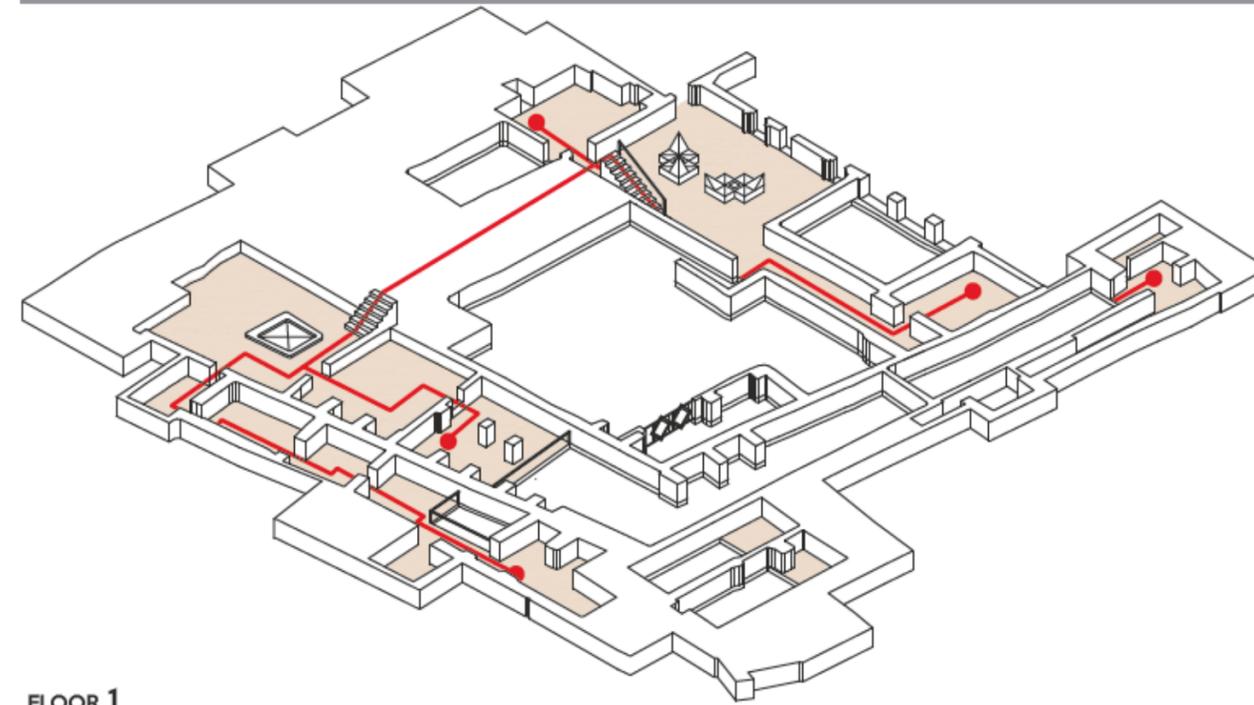


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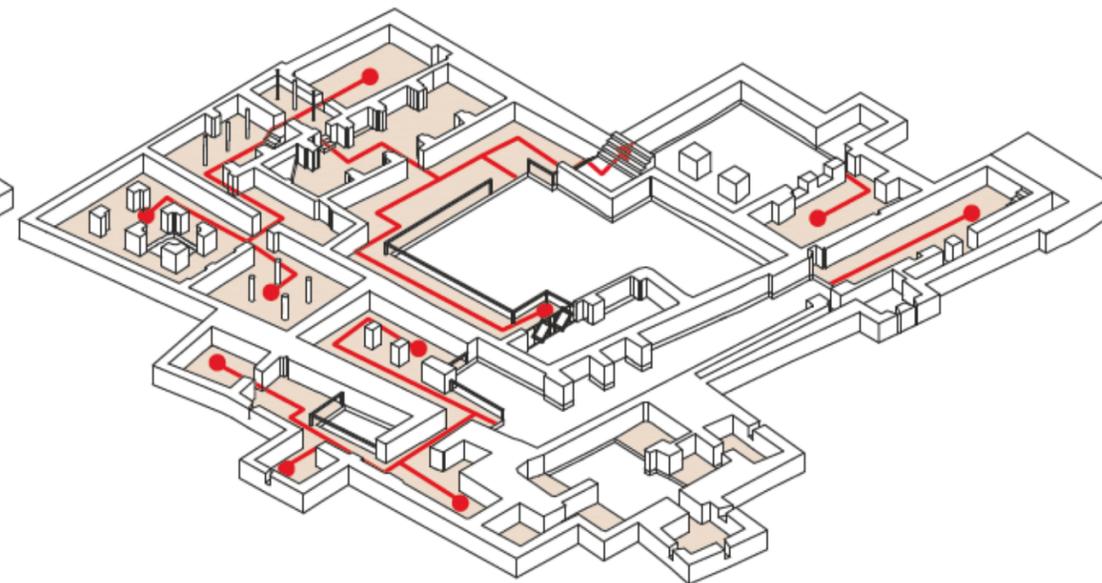
PROPOSED  
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# CIRCULATION

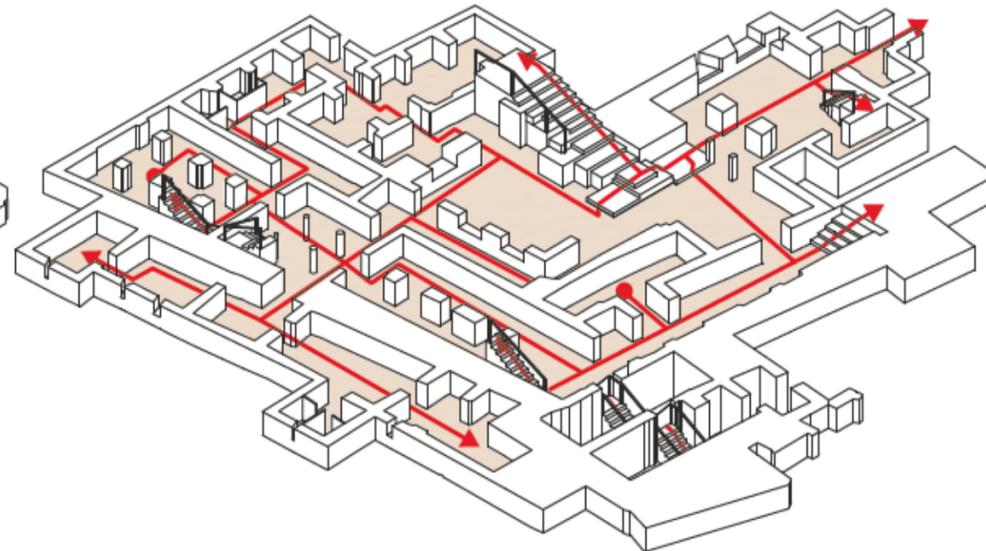
One of the most critical aspects of the intervention is the reintegration of circulation within the Caid Residence. This will be achieved by leveling floors where debris has built up, reinterpreting staircases that have lost structural integrity, reinstating some of the means of circulation that had previously connected the Caid to the rest of the Kasbah and widening openings to allow for greater means of egress.



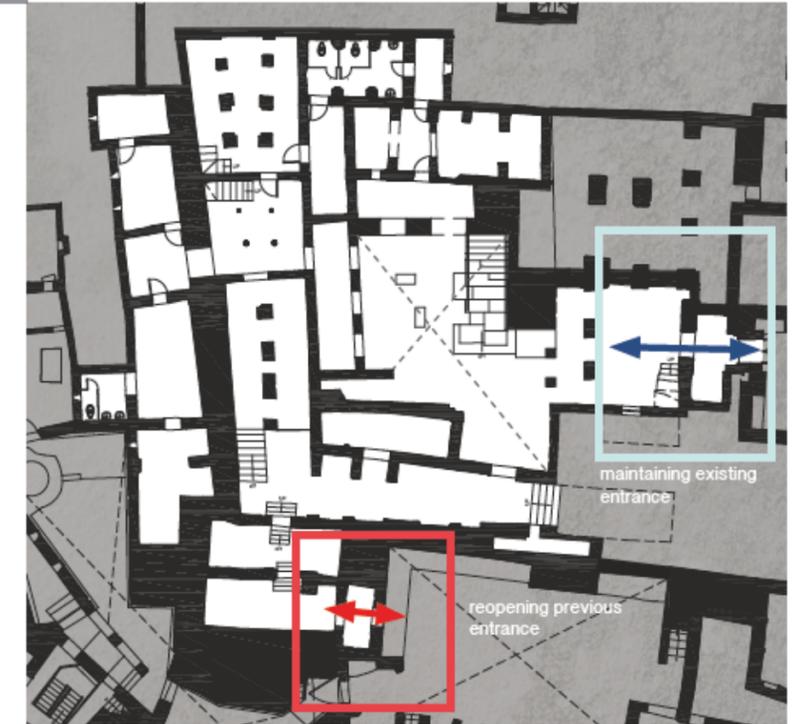
FLOOR 1



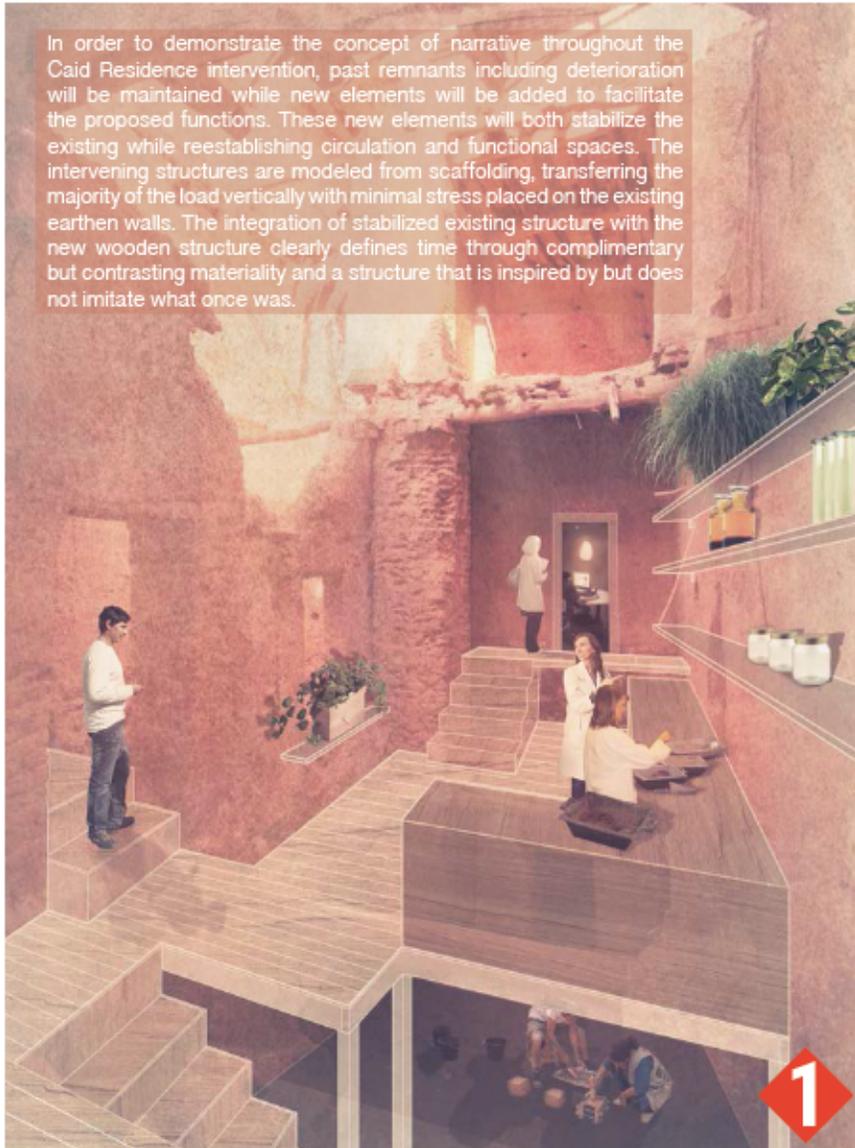
FLOOR 2



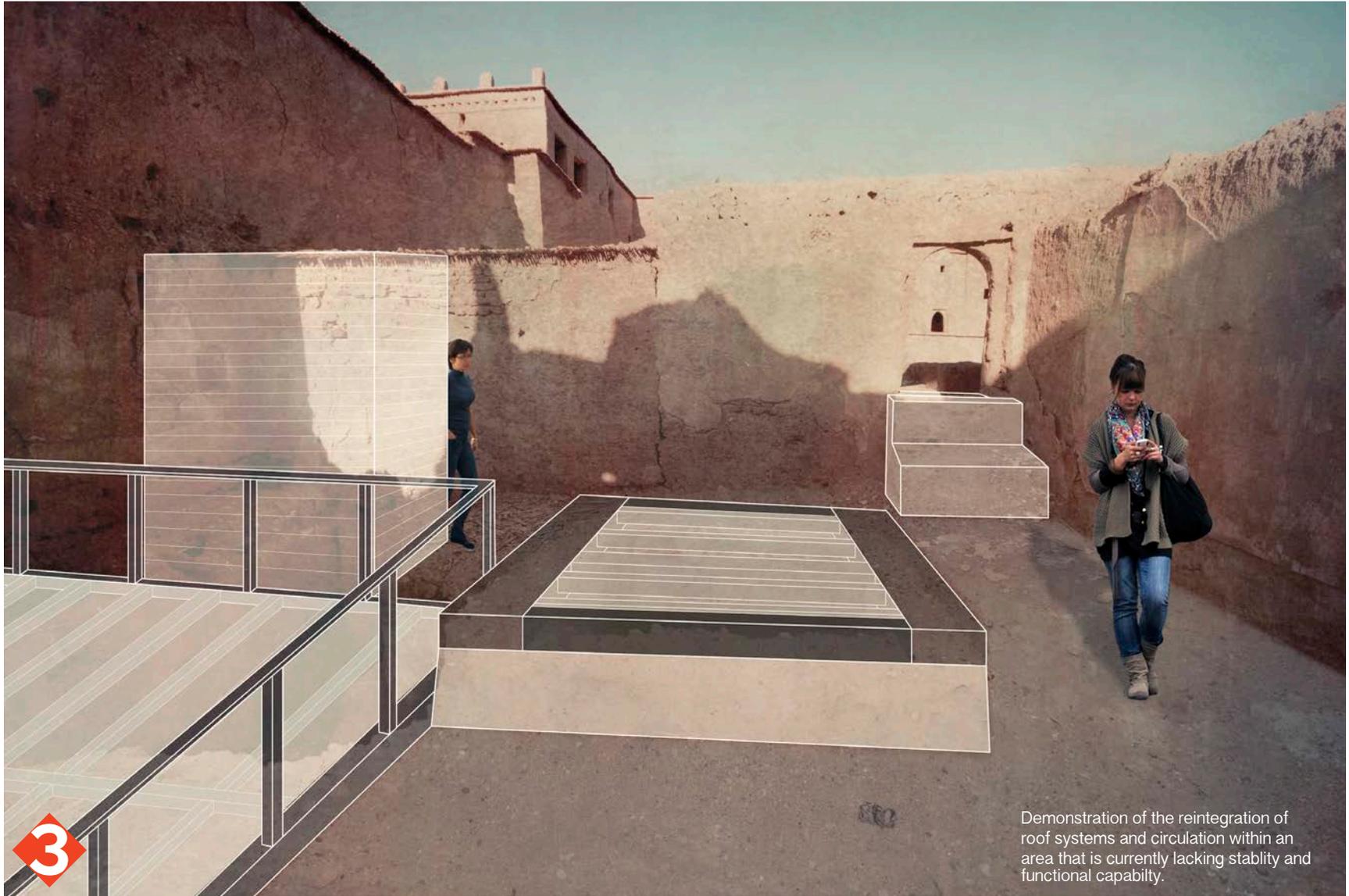
FLOOR 3



In order to demonstrate the concept of narrative throughout the Caid Residence intervention, past remnants including deterioration will be maintained while new elements will be added to facilitate the proposed functions. These new elements will both stabilize the existing while reestablishing circulation and functional spaces. The intervening structures are modeled from scaffolding, transferring the majority of the load vertically with minimal stress placed on the existing earthen walls. The integration of stabilized existing structure with the new wooden structure clearly defines time through complimentary but contrasting materiality and a structure that is inspired by but does not imitate what once was.



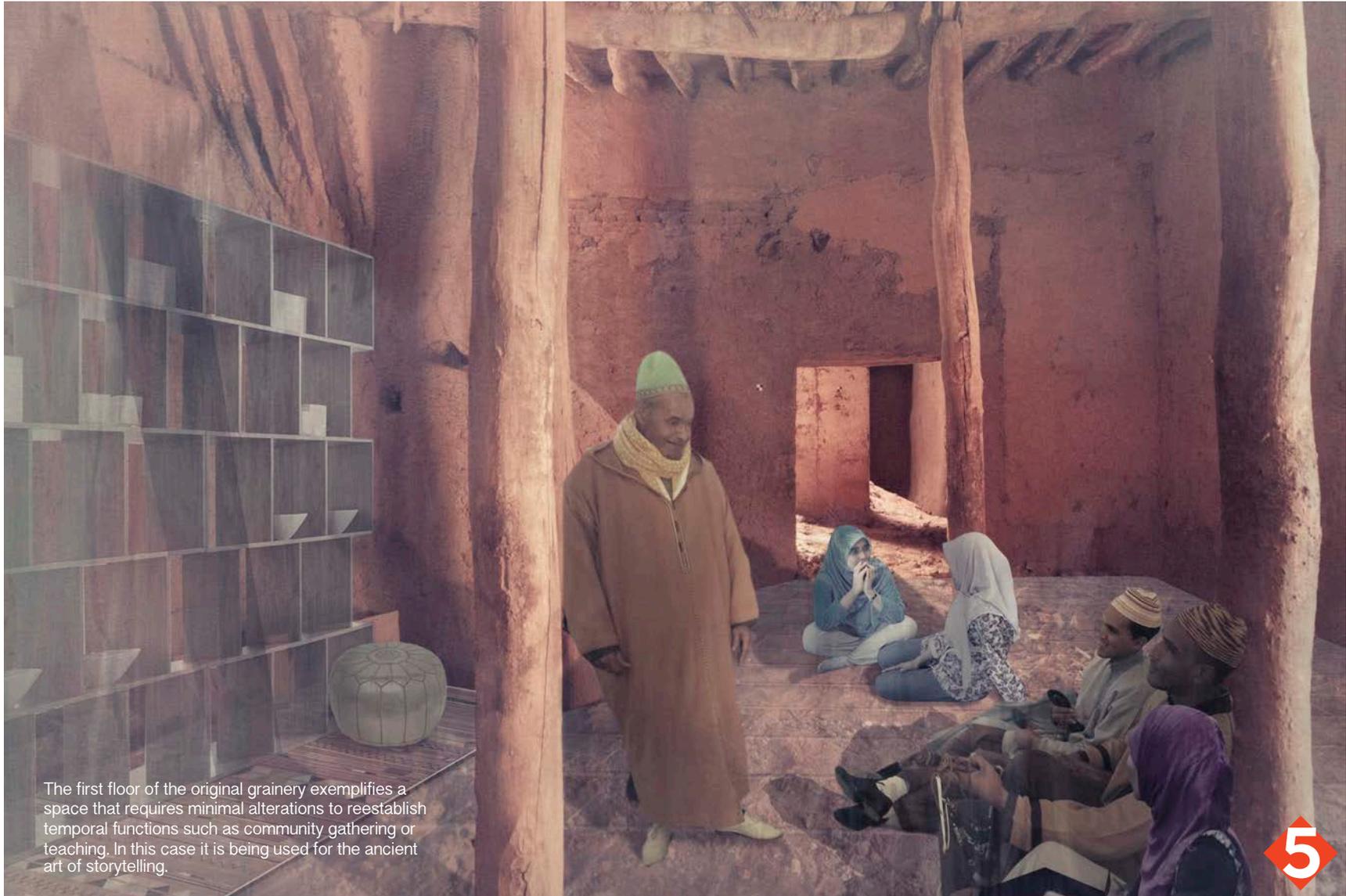
The reinstatement of circulation in the 2nd and 3rd floor of the collapsed roof/floor system in the Western-most rooms



Demonstration of the reintegration of roof systems and circulation within an area that is currently lacking stability and functional capability.



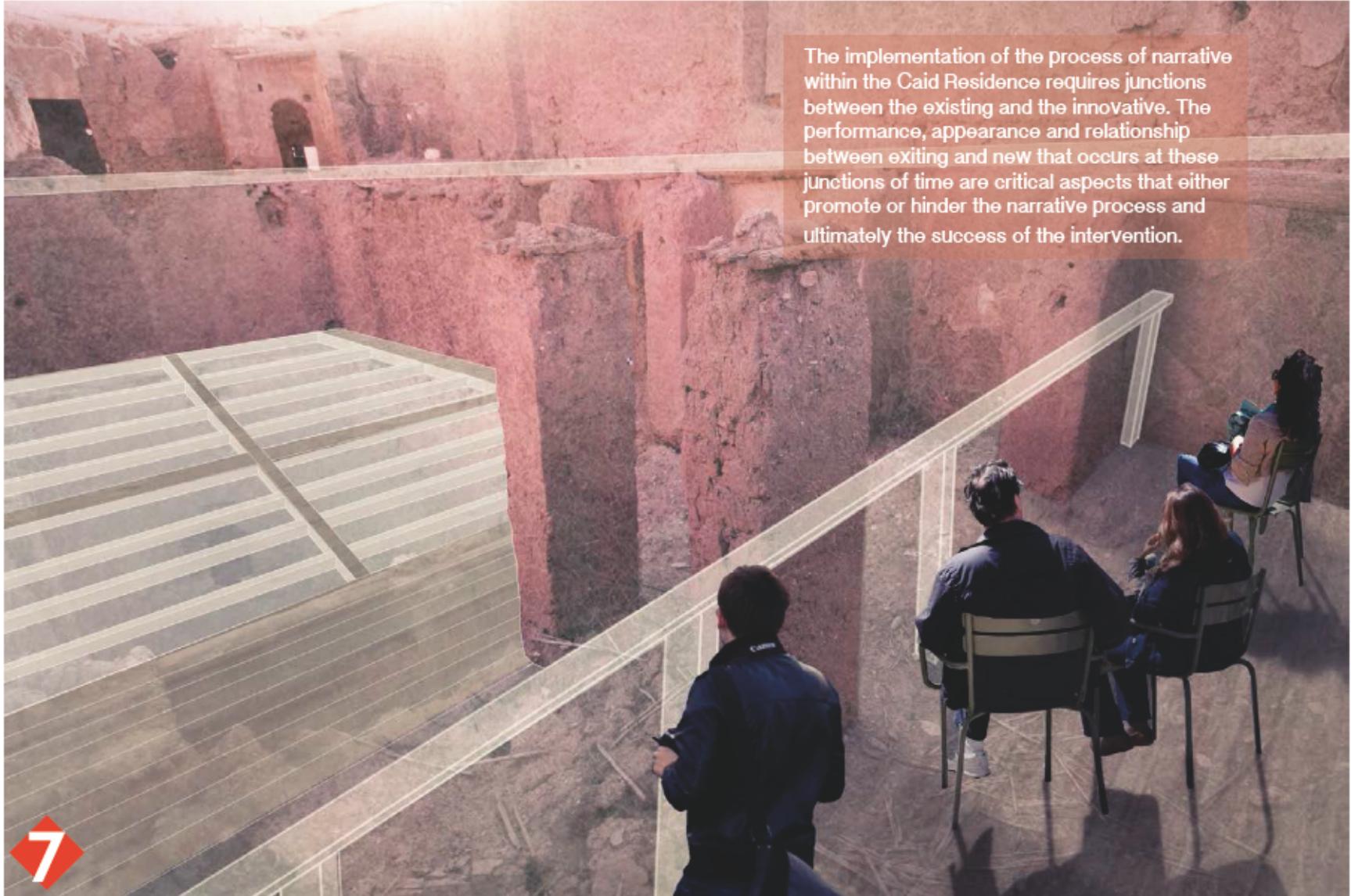
Certain areas within the Caid Residence do not require extensive alterations to reinstate functionality. Many areas simply require leveled floors, updates for safety requirements, such as railings, and various temporary features such furniture to restore relevancy.



The first floor of the original grainery exemplifies a space that requires minimal alterations to reestablish temporal functions such as community gathering or teaching. In this case it is being used for the ancient art of storytelling.

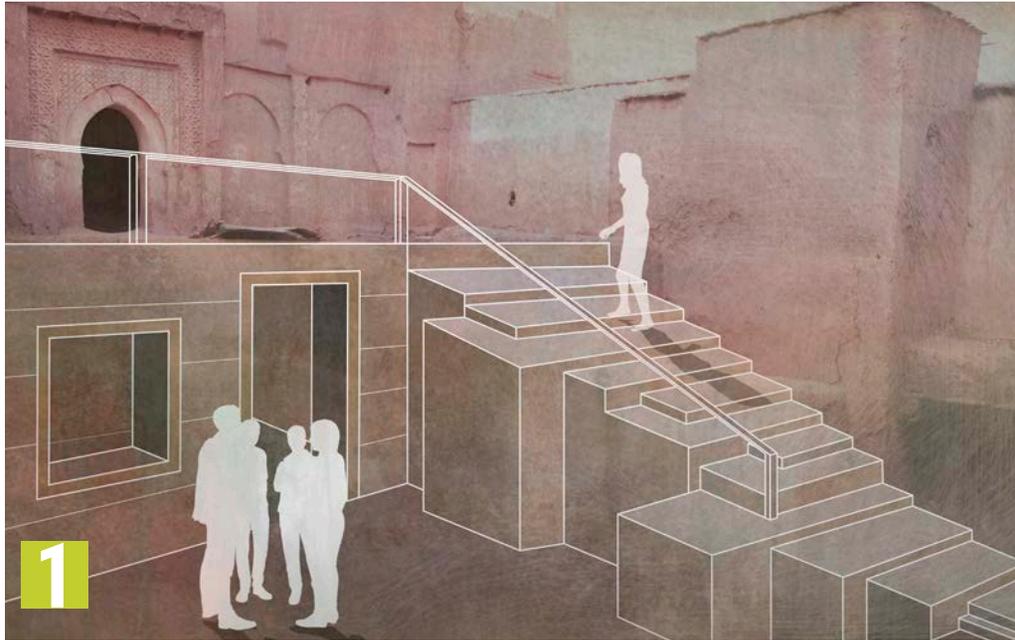


An upper third floor west room that simply requires a new floor in order for community groups and visitors to use the space and appreciate the narrative revealed through the remnants of time's passing.



The implementation of the process of narrative within the Caid Residence requires junctions between the existing and the innovative. The performance, appearance and relationship between existing and new that occurs at these junctions of time are critical aspects that either promote or hinder the narrative process and ultimately the success of the intervention.

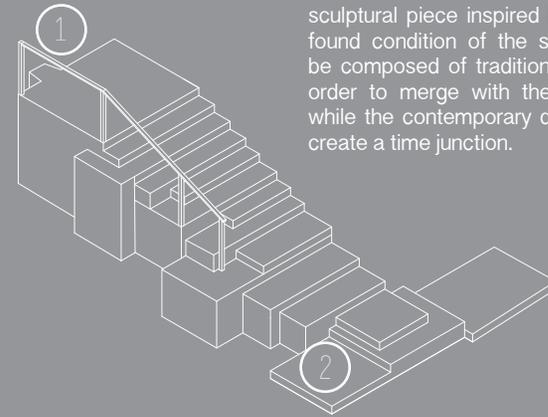
7



## STAIRS

- 1 STEEL RAILING
- 2 EARTHEN STAIRS

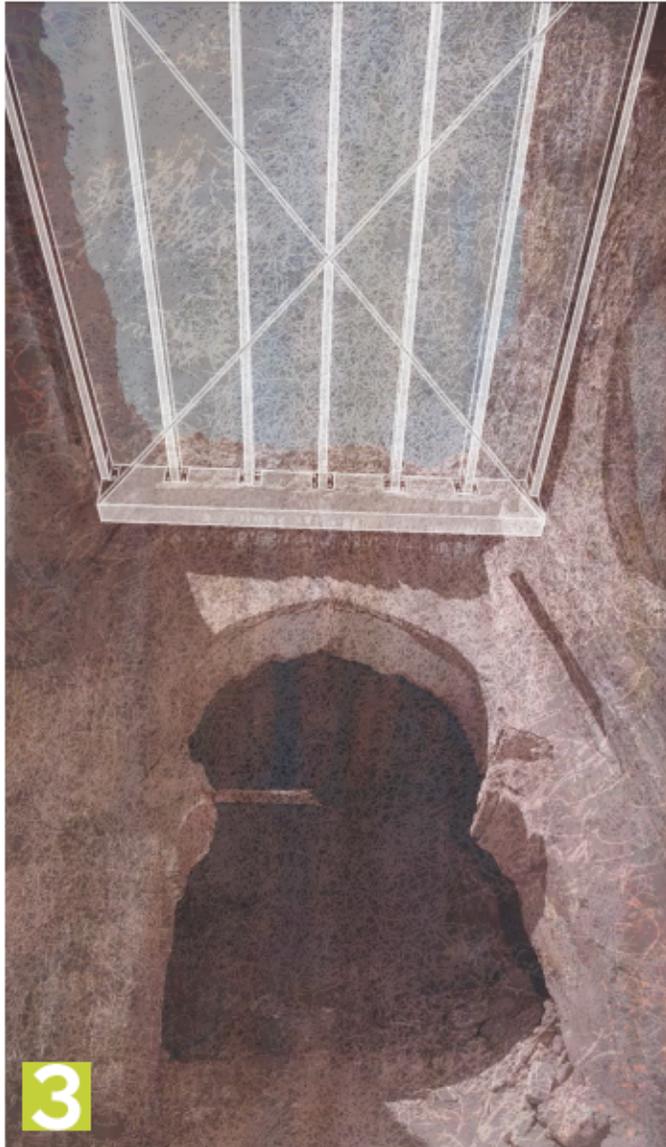
The entrance stair within the main courtyard will not only act as a means of circulation but also as a sculptural piece inspired by the as found condition of the site. It will be composed of traditional pise in order to merge with the existing, while the contemporary design will create a time junction.



- 1 EARTH/CONCRETE STAIRS
- 2 STEEL RAIL AND STRUCTURE

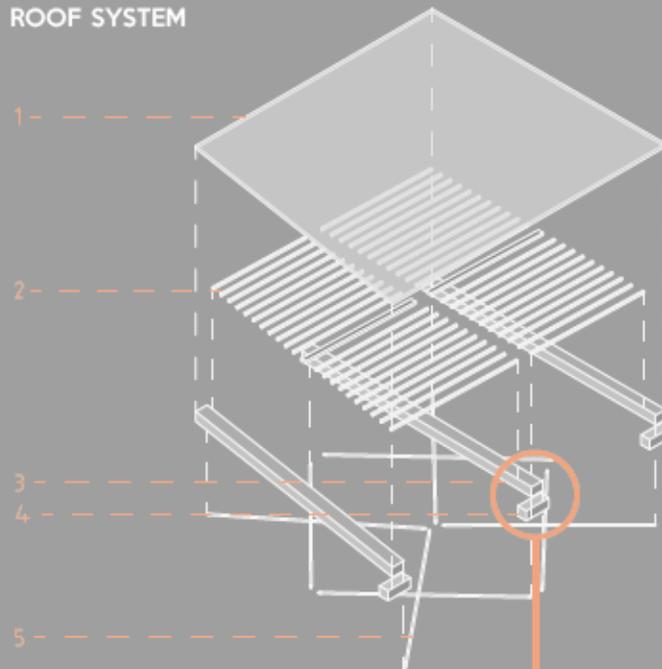


Where new stairs replace existing they will draw inspiration the typology and form that previously existed. The treads will be composed of rammed earth with a 5-10% mixture of Portland cement. This mixture will have similar characteristics of the traditional pise walls but will ensure their longevity. The additional elements, such as rails and connections, will be composed of wrought iron.



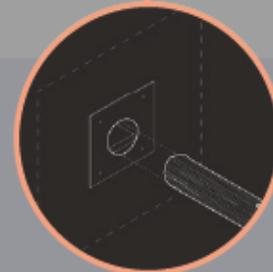
3

## ROOF SYSTEM



In areas where roofs have collapsed, a system combining wood beams, rods and cables will reinstate the structural stability that was lost by mimic the traditional roof system. The structure in certain areas will be covered in polycarbonate roof sheathing that will provide waterproofing but still allow light to penetrate. The use of the contemporary materiality will communicate that deterioration had occurred, promoting an authentic narrative (AcroPlus 2015).

1. POLYCARBONATE ROOF SHEATHING
2. WOODEN JOISTS
3. WOODEN BEAMS
4. WOODEN WEIGHT DISTRIBUTION PIECE
5. STABILIZATION CABLES



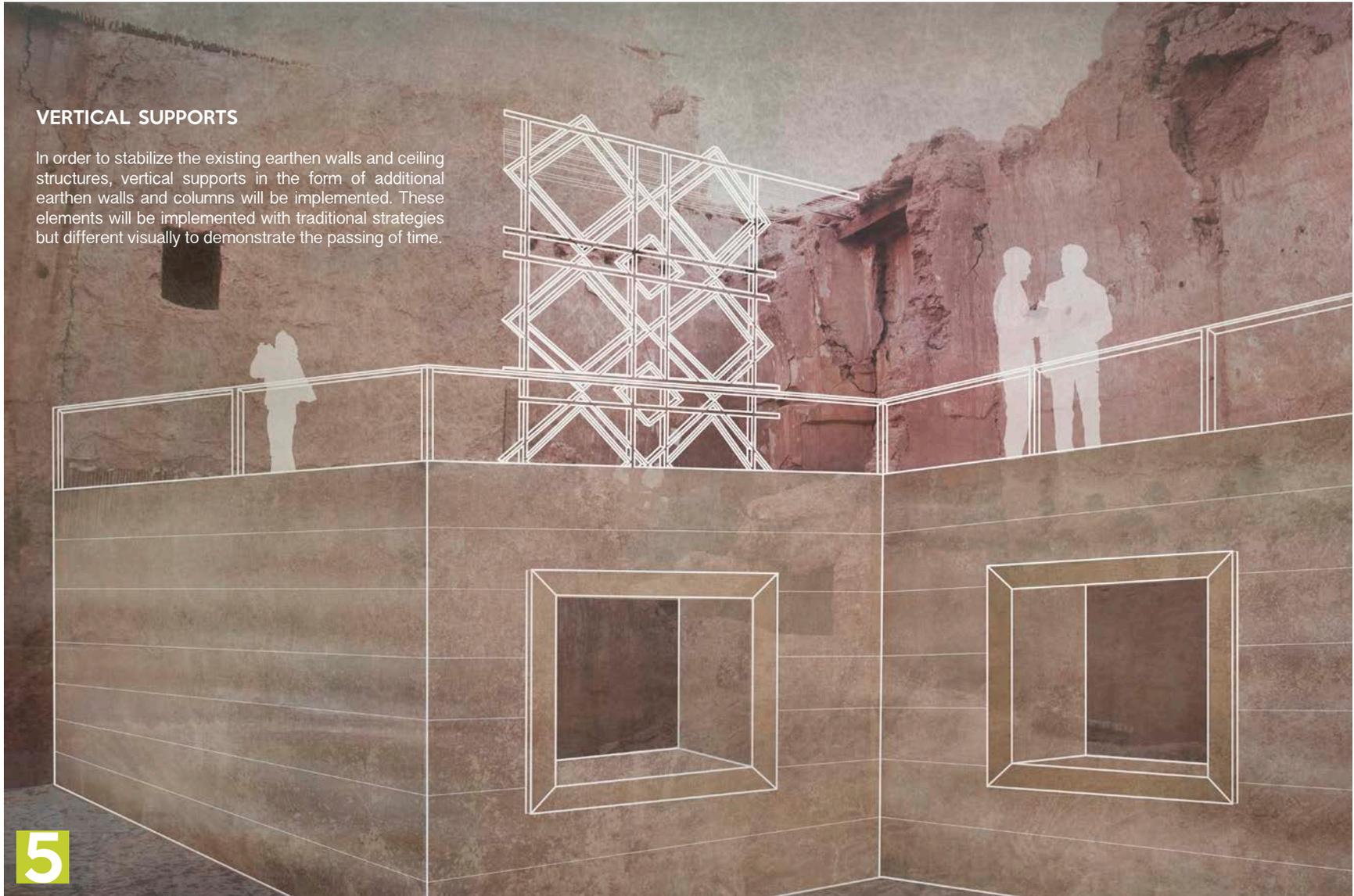
Insertion of a new structural beam in existing earthen wall. The diameter of the opening should match the diameter of the beam. Distribution plates help with load dispersion.



4

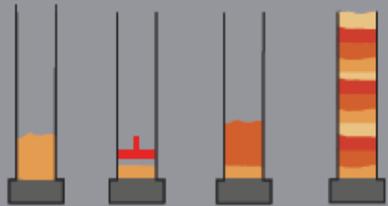
## VERTICAL SUPPORTS

In order to stabilize the existing earthen walls and ceiling structures, vertical supports in the form of additional earthen walls and columns will be implemented. These elements will be implemented with traditional strategies but different visually to demonstrate the passing of time.



## STRUCTURAL EARTHEN WALLS

In areas requiring base structural supports, new pise walls will be integrated, which will be constructed through traditional methods. In order to differ between the existing and newly integrated, patterning, such as horizontal banding, can be implemented through the sedimentation of the earthen substrate. This will allow the walls to be constructed traditionally to ensure compatibility with the existing and still allow for visual differentiation.

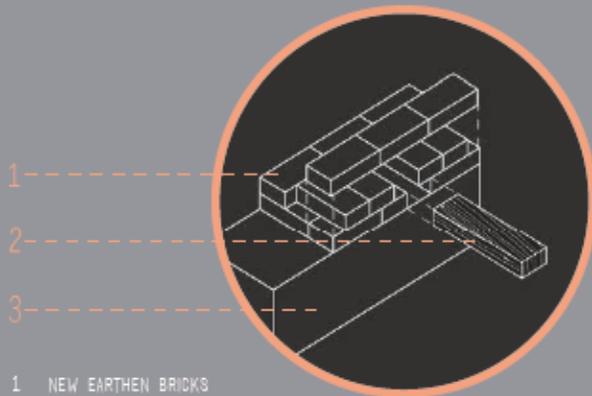


process of producing patterned rammed earth



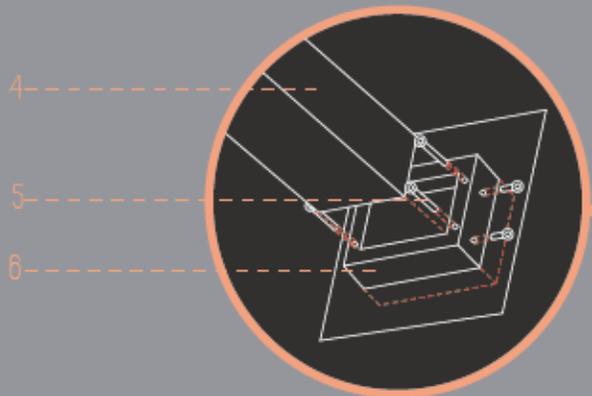
patterned rammed earth





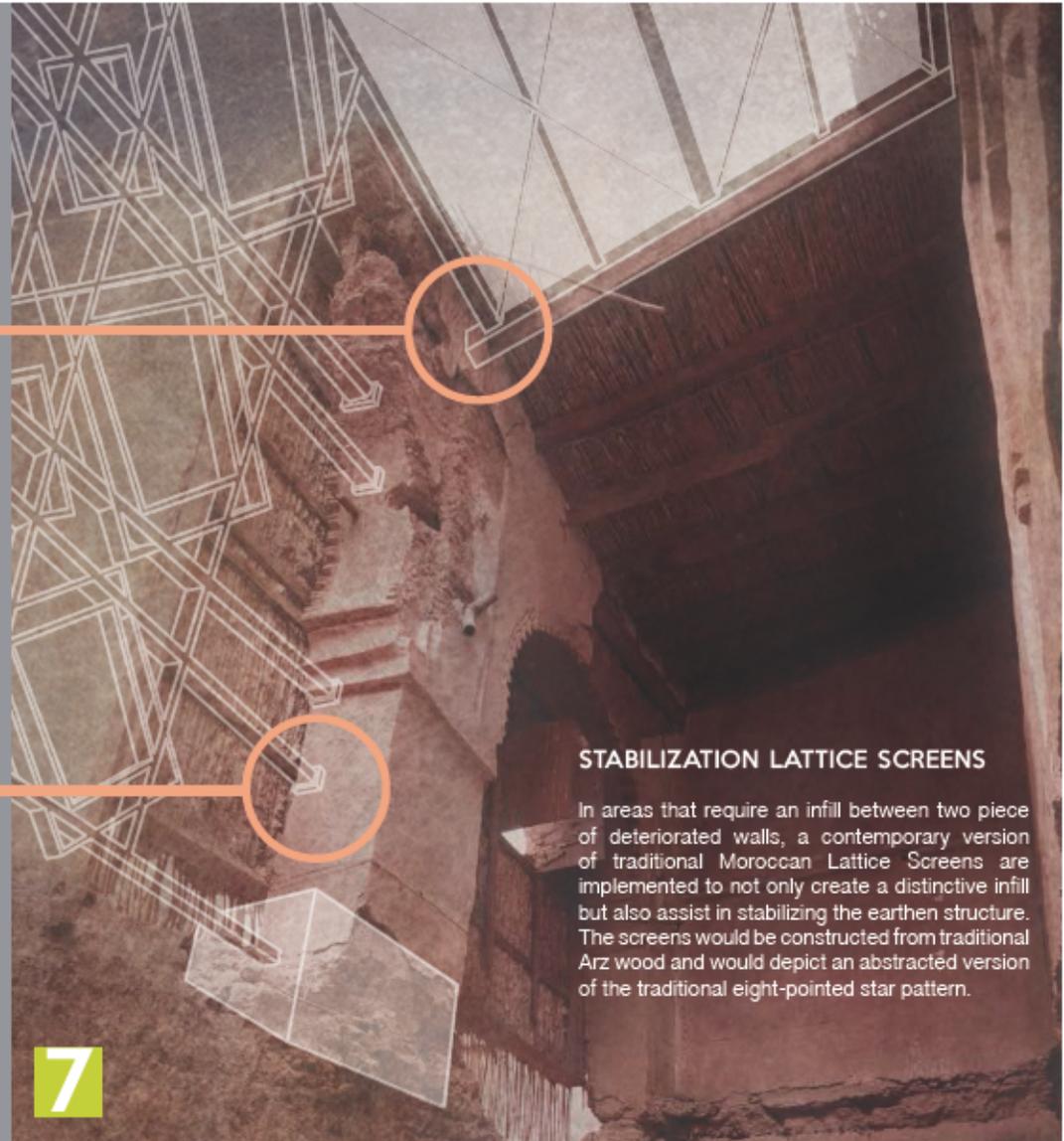
- 1 NEW EARTHEN BRICKS
- 2 INSERTION OF STRUCTURAL WOOD BEAM
- 3 EXISTING EARTHEN WALLS

Loadbearing connection at roof using new earthen construction.



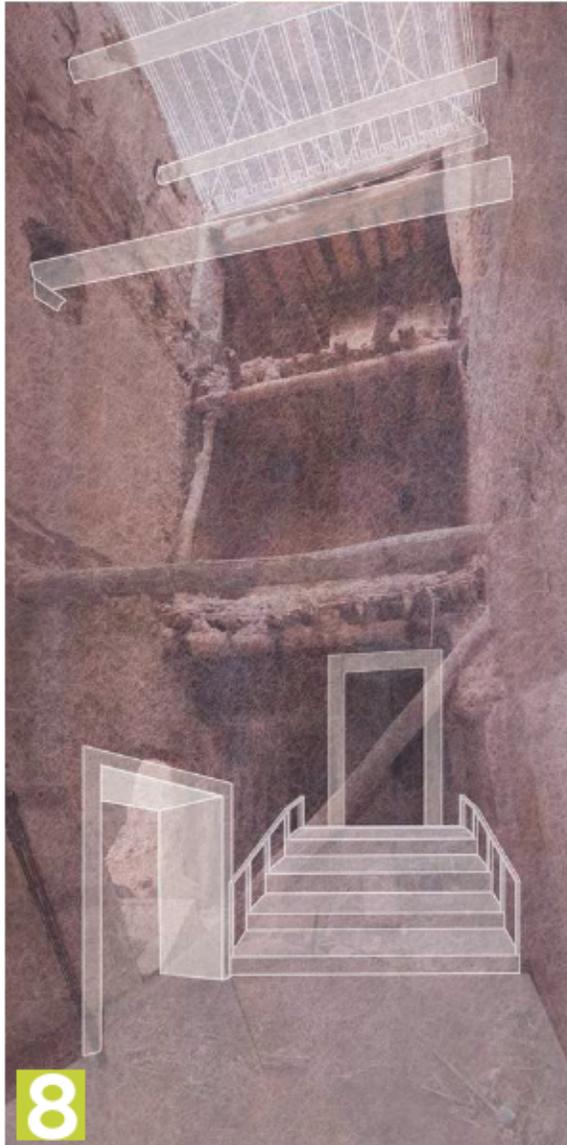
- 4 LATTICE JOIST
- 5 CONNECTION PIN
- 6 WOODEN SOCKET

Connection detail between joist and existing earthen structure. Joint is non-loadbearing.



### STABILIZATION LATTICE SCREENS

In areas that require an infill between two piece of deteriorated walls, a contemporary version of traditional Moroccan Lattice Screens are implemented to not only create a distinctive infill but also assist in stabilizing the earthen structure. The screens would be constructed from traditional Arz wood and would depict an abstracted version of the traditional eight-pointed star pattern.



### ADDITIONAL SUPPORTS

Deterioration in earthen architecture is accelerated when the horizontal supports lose structural integrity as they support the earthen elements to avoid cracking and collapse. The proposed intervention will employ new horizontal supports in the form of beams and roof structures that use contemporary elements implemented through systems that mimic traditional assemblies (Cancino In Progress). In areas where new beams and columns are added, walls will most likely have to be repaired to ensure structure stability.

### BEAMS

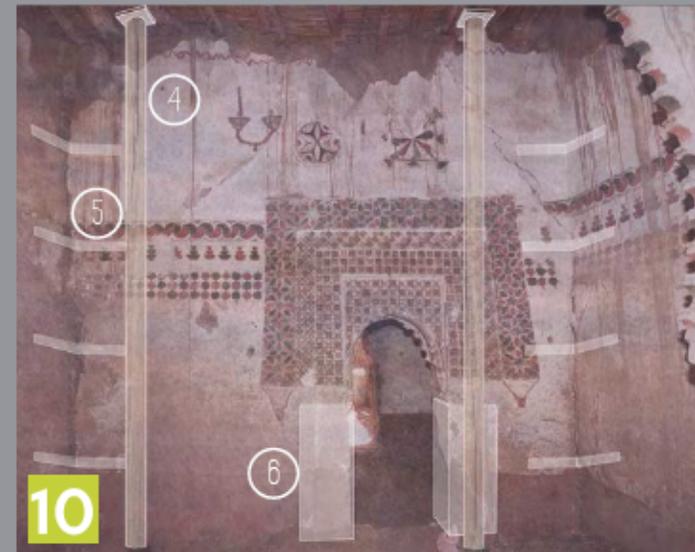
Wood beams will be integrated where further structural stability is required, such as multi-storey areas that had previously contains layers of floor systems that supported the earthen structure. These beams will be implemented in the traditional system with consistent dimensions, however the wood typology and form will distinguish them from the existing.

- 1 NEW WOODEN JOIST
- 2 RESTING PLATE
- 3 DISTRIBUTION PLATE

### COLUMNS

There are several interior spaces that require roof stabilization, especially within the Maison du Tissage where the existing deteriorating structural components are considered character-defining elements and as such are better supported with additional elements rather than being replaced.

- 4 NEW STRUCTURAL COLUMNS
- 5 EARTHEN TIES
- 6 EARTHEN SUPPORTS FOR OPENINGS





The goal of this proposal is to suggest an intervention that authentically communicates the cultural values of the Caid Residence as a narrative process and not as a nostalgic representation of an ideal. By acknowledging the passage of time and the contextual changes that have produced the site's current state, the proposed intervention will facilitate contemporary functions to encourage the site's longevity.

The deteriorative nature of earthen architecture requires stabilization and constant maintenance. As the site contains various states of deterioration, the intervention ranges in maintenance, repair, stabilization and the integration of contemporary elements. These contemporary elements act as junctions of time, sustaining the existing while facilitating a relevant use. By integrating stabilization and contemporary design into each element, the innovative additions not only add a layer of value to the existing narrative but also amalgamate into the process of inherent adaptation already existing on the site. As a result, each intervention type reflects existing values through a contemporary lens.

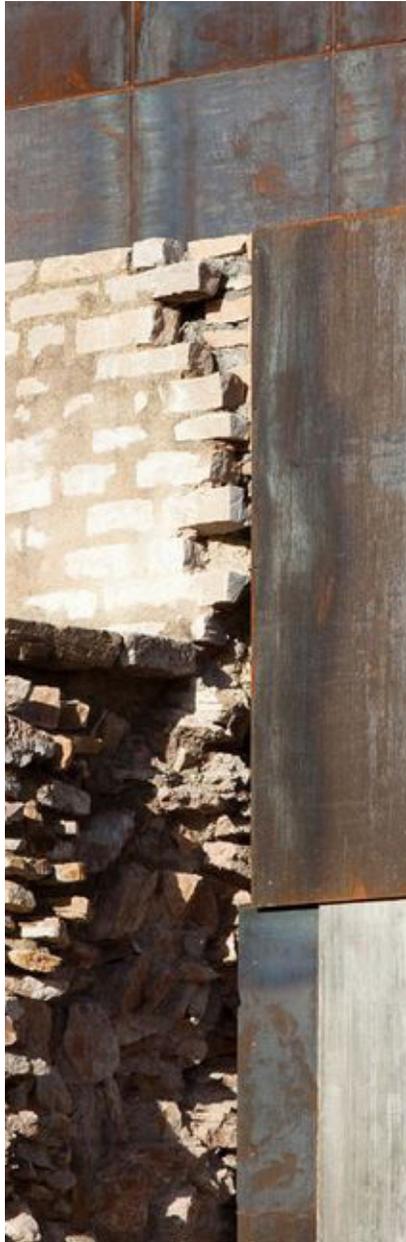
The proposed functions will attempt to reinvigorate the site at two levels. The primary goal is the reintegration of the surrounding community in order to ensure that the site remains relevant. The suggested layout and functional program allows for current programs already existing in the community to have a context while being flexible enough to adapt to future requirements. By additionally recommending an educational function in an international context, the site will be respected as an exemplary representation of earthen construction and as a result its maintenance and longevity would be ensured.

## **OUTCOME**



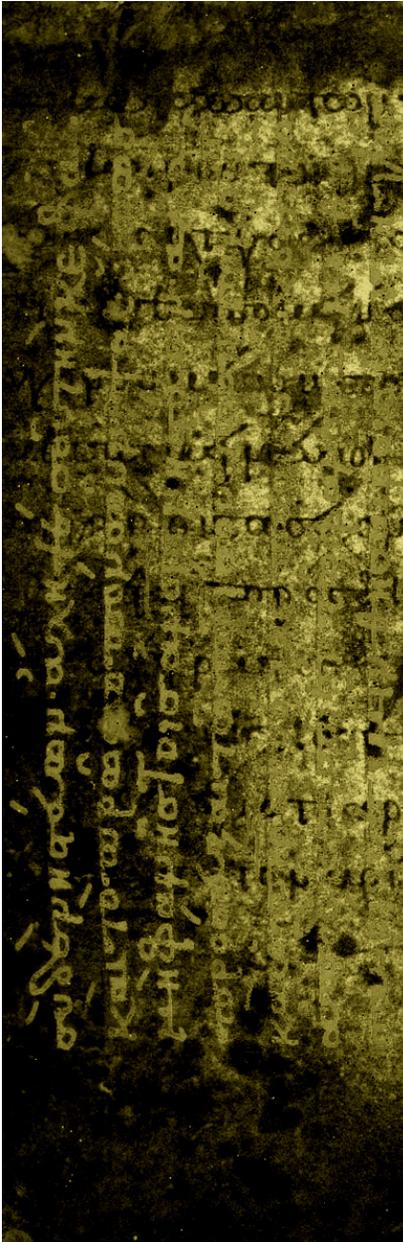
Unlike other man-made creations that are produced with an intended state of completion, the built environment is in constant flux. While there can be an ideal intention in a space's initial conception, this intent can never be truly realized due the relationship between the inhabitant, their values and the structure which occurs through inhabitation. As a result, if the term authenticity is to be consistently employed to describe an idyllic representation of cultural identity, the process of adaptation that occurs as a result of inhabitation needs to be recognized in its definition. The structure of narrative celebrates adaptation through inhabitation, producing traces of values that communicate an overall contextual account. In order for the narrative process to persist, it needs to be fed with innovation that reflects contemporary actions, never allowing the process to conclude. As long as these innovative interjections reflect contextual values, the narrative will remain an authentic incomplete project.

## CONCLUSION



In order for the structure of narrative to be implemented within the architectural profession, the division between those who treat the existing and those who design the present needs to be abolished. Throughout the field of conservation the existing is glorified as an ideal that must be protected at all costs, even when considering new interventions. On the other hand, adaptation has become a popular strategy throughout the field of architectural design, with almost every project dealing with some form of an existing context. While this trend is realistic, the design stream fails to promote the foundations of conserving the existing. Just as Ricoeur's definition of narrative requires a balance between sedimentation and innovation, the way in which architects are educated and practice should mimic this relationship. In order to truly maintain authentic built environments that exhibit inherent adaptation, the titles of architectural "conservation" and "design" need to be dissolved and integrated into an overall process.

## REFLECTION



The purpose of this exploration was twofold; first, to redefine authenticity as a process rather than as a completed state in order to bring value to the remnants that have accumulated on many sites over time that still lack recognition. Secondly, I intended my investigation to reveal the fact that adaptation is inevitable in every inhabited site and therefore it should not only be tolerated but additionally promoted in both the conservation of the existing and the design of the contemporary. My proposal for the Caid residence of the Kasbah of Taourit was not intended not as a clear definition of what should occur on the site but rather as a concept that provides an alternative strategy that balances the existing narrative of the site with relevant additions that add to its development. The ultimate goal was to explore adaption and develop a strategy for the site based on a process of change through time rather than an absolute ideal so that it may be able to eventually reinvigorate itself, remain relevant and allow the narrative process to continue to progress.

## POST-SCRIPT

The adaptations that have been transpired within the Kashbah of Taourirt narrate the social, economic, political and ethical changes that have occurred within the Berber community and the city of Ouarzazate over the past five centuries. The narrative of the site relies on various sources including oral history, written records, images and travelers accounts.

The Ksar, constructed in the 16th century, is the first instance of inhabitation the region. The growth of the Ksar's prominence within the trade route of Soudan popular in the trade of gold, slaves, leather and clothe leads to further urban development.

The earliest part of the Kasbah, is said to have been built in the 17th century adjacent to the Ksar, approximately the same time as Versailles, though it is unclear who inhabited it.

In the early 19th century, Sultan Abderrahman Ibn Hicham of Morocco appoints Si Mohammed ou Abdellah as Caid and as such resides in the Kasbah until 1860. In 1960 Caid Mohammed Ibibt El Mezouazi is appointed Caid of the Glaoua and in turn appoints Mohamed ou Hamad ou Abou as the Caid of Tourirt. He consequently constructs Stara East as his residence, which continues to grow and adapt.

El Madini Glaoui succeeds his father Mohammed Ibibt as the Caid of the Gaoui in 1882 and appoints his brother, Hammadi, as Caid of Taourirt. At this time the main structure of the Caid residence is constructed.

In 1893, the Glaoui consolidate their power and become rulers of the entire region between Marrakech and Ouarzazate. The growing power of the single family causes a rebellion by the Ait Ouarzazate and Ait Boudlal tribes. This siege caused a rapid expansion, producing the North walls for security and surveillance as well as Stara West and Workshops. It also included the expansion of the Caid Residence from the simple square-plan structure to a larger, less concise space with outer rooms, thickened walls and additional towers.

Sultan Abdellhafid attempts to depose the Glaoui family in 1911, however their overwhelming power in southern Morocco allies with the French and their protectorate in the Treaty of Fez in 1912. This new allegiance results in the installment of the first French military base in area. This installation initiates the overall development and adaptation of the region soon to be known as Ouarzazate. These developments included the first landing strip and air travel (1926), the Marrakech-Ticha road linking the city to surrounding outposts (1928), the installation of the French Battalion (1930) and the naming of the urban center as Ouarzazate (1933). The battalion commander Chardon also instated an urban plan to develop a colonial city, which developed the natural landscape surrounding the

## History of Taourirt **APPENDIX A**

Kasbah and Ksar. In 1939, Si Boubker, son of El Madani, becomes Caid of Taourirt for nine months until the position is taken over by Mohamed El Mahdi in 1940, who remains Caid until the Independence of Morocco in 1956.

In 1950 the Kasbah is declared a national historic monument with the Ksar listed as a serving protected area, while the Moroccan government in 1956 confiscates the entirety of the site due to the Glaoua's affiliation with the French government. While the property was later returned to the Glaoua family in 1967, the municipality proceeds to purchase it in 1972 due to the families decrease in significance. During this shift in power these are consequential adaptations that occur throughout Ouarzazate and Taourirt in terms of function and economy. Without occupants to maintain the structure, the Kasbah fell into disrepair due to the deteriorative nature of the Earthen construction and wooden roofs leading to collapse in several areas, including a large western portion of the Caid residence. This deterioration was exacerbated by the infiltration of squatters into the Kasbah, whose use and lack of maintenance promoted deterioration. Additions were also added in the form of walls, stairs and doors to accommodate new functions due to the fact that pise is such a simple construction method for short term needs.

The town of Ouarzazate also undergoes various shifts in economy including the addition of tourism and the film industry. The first Club Med is built across from the Kasbah in 1967, the first of several hotels to be constructed with the increase in adventure tourism. The unique landscapes and earthen architecture of the region attracts the attention of Hollywood and the dawn of the film industry in Ouarzazate. Lawrence of Arabia was first filmed in the Kasbah of Taourirt in 1962, and with the creation of the Atlas Film Studios in 1983, various other films such as, The Mummy, Gladiator, Kingdom of Heaven, Babel were filmed in the region. Additionally, The Living Daylights (1987) and Prince of Persia (2010) were filmed within the Kasbah. As such, various alterations were completed for set design, especially in the Caid residence, some of which are indecipherable, including new walls and decoration.

In 1980, there was a gradual reoccupation within the Kasbah due to better recognition of its heritage value. CERKAS, created in 1989, first instated their offices in the southeast region of the Kasbah, thus commencing the first of several rehabilitation projects throughout the site. As previously mentioned the intent of these projects was to rebuild the earthen construction while instating contemporary functions within the space. As such there are various interior changes made to accommodate the new functions.

Cancino, Claudia. Historical and Condition Assessment of the Kasbah de Taourirt . Los Angeles : Getty Conservation Institute , In Progress.

## History of Taourirt APPENDIX A

<b>Architectural and Aesthetic Value</b>
Greatest kasbah in Morocco built with earth
Example of politically associated and commanding Kasbah
Contains various decorative motifs that are still in context and complete
Spatially consistent with Ksar in terms of public spaces, streets and buildings
Diversity of forms
Exceptional diversity in earthen construction techniques
Balance of form and decor
Integrity of shapes and colors
Proportion and balance
<b>Historical Value</b>
Evidence of historical and political events in the regional history of Morocco
Expression of regional domination and status
Strategic location
<b>Social &amp; Anthropological Value</b>
Corporate identity in the region of Ouarzazate
Monetary Symbol of National Value
Cultural Events
Interaction between Ksar and Kasbah
Traditional Dances (Ahwash)
Occupation of the Stara from 1955-2010
<b>Economic Value</b>
Tourist Activities
Artisanal and Cultural Activities
Cinematographic Activities
Interaction with Palmerie

Source: el-Habashi, Alaa. "Kasbah de Taourirt Statement of Significance". 2014

## Inherent Value of Taourirt - CERKAS APPENDIX B

1. Follow the Declaration of values written for the site, and opt to minimize the impact on the Character Defining Elements
  2. Observe the criteria for classification on the national heritage list
  3. Keep important interior elements and decorations intact
  4. Ensure the interpretation of the significance of the site
  5. Opt for a minimum level of intervention
  6. Choose preserve the structural integrity
  7. Opt to employ the traditional building system and materials,
  8. Maintain the original form of the listed building and the type / traditional architectural morphology (eg. original openings) and feature where possible
  9. Establish a long-term management program that is economically viable, led by a management team.
  10. Establish a system to implement periodic maintenance in high risk areas
  11. Select the uses that compliment the activities of the surrounding businesses,
  12. Promote the programs that involve local community activities, rituals and events
  13. Educate all stakeholders that manage the site
  14. Preserve and promote the uses and contemporary memory
  15. Preserve contextual significance (surroundings urban / natural environment)
  16. Respect the historical points of access and internal circulation, and prevent further opening access points if not well justified,
  17. Aspire for the reuse of existing spaces before considering the addition of new construction
  18. Ensure the health and safety of visitors and workers
  19. Document all changes, modifications and additions
  20. Maintain the unity of the ownership of all of the Kasbah
  21. Establish a management plan that has a use for each space
  22. The new services and modern facilities are expected to have minimal impact on the historic fabric
- (el-Habashi 2014)

## **Principles and Guidelines for the Rehabilitation of Taourirt**

# **APPENDIX C**

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