

Building Language: A Traditional Andean Language Center

In Ollantaytambo, Cuzco, Peru

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ABSTRACT

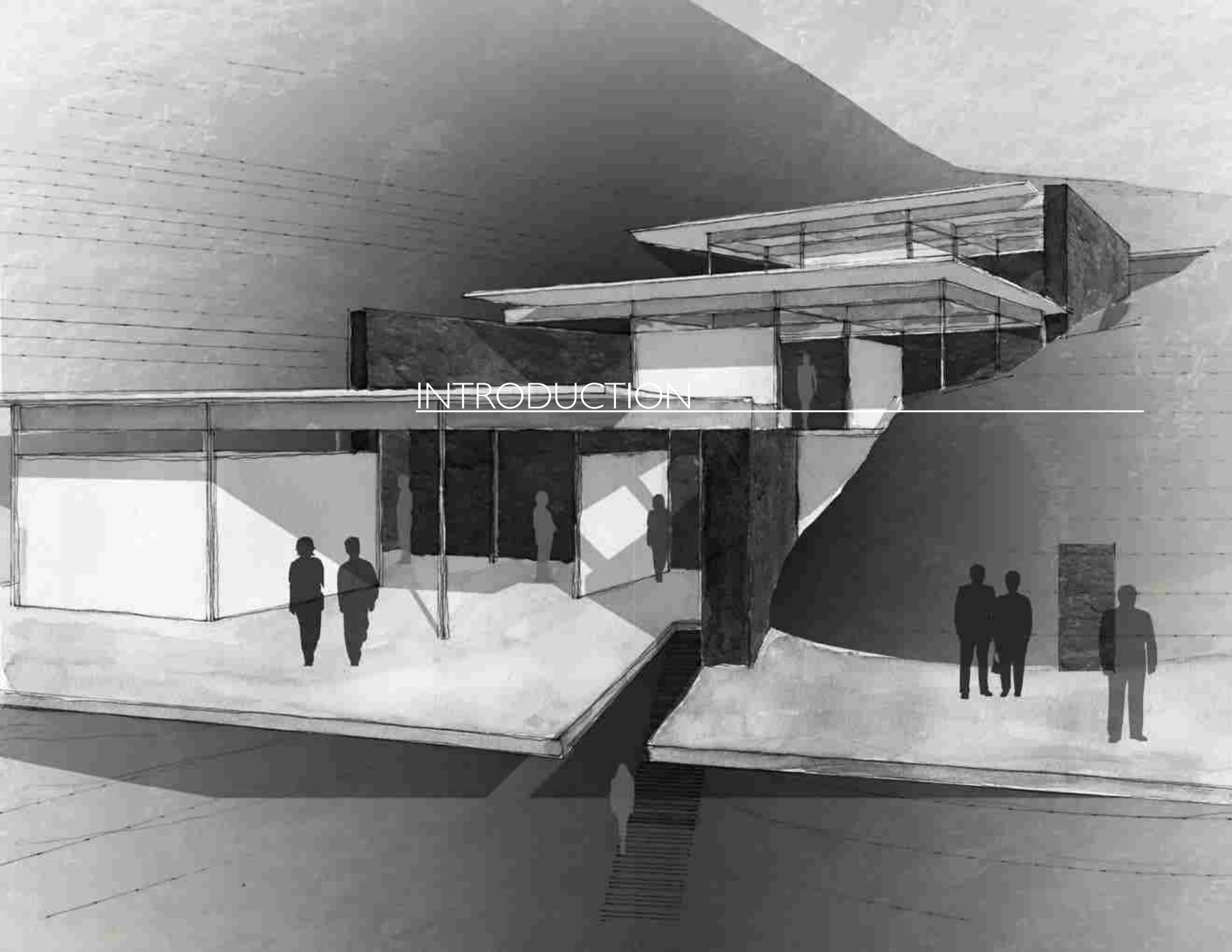
Contemporary Cuzco is a city of paradox and contradiction. The creation of a consumable city-as-museum is deemed key to Cuzco's national and global prosperity and legitimization, but the path to globalization is comprised almost solely of fetishizing and commodifying its uniquely local history. Andean history is rewritten and appropriated as necessary in a continual and conscious process of pastiche, in order to facilitate a glorified Inca renaissance. However, the creators of this exalted history, the indigenous Quechua, live as second-class citizens, offered the opportunity for economic betterment in Cuzco only if they play actors in the spectacle that is their own revised history. I therefore propose for Cuzco an architecture of resistance, simultaneously combatting homogeneous globalization, pastiche and superficial imitation, contrived stasis, and the symbology of denigration. I propose a building that strives to find the enigmatic but crucial place between Cuzco's contemporary interpretation of its past and its conflicting needs for the future. To explore the creation of such an architecture in Cuzco, I propose the design of a Traditional Andean Language Center, dedicated to the collection, preservation, and valorization of native Andean languages and cultures. The design of the Language Center focuses on rendering spatial and tectonic the intangible and dynamic characteristics of language, thereby framing cultural discourse in architectural terminology. It explores ways in which spoken and architectural language intertwine and inform one another, and it emphasizes a critically regional, self-reflexive creation of space in order to resist both historical pastiche and the placelessness of globalization. The Language Center thereby strives for permanence, even timelessness, through the critical interweaving of past, present, and future, while seeking to demonstrate the potential for a globally relevant application of cultural and architectural locality.

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INTRODUCTION



A Conflicted Context: Problem Statement

This thesis focuses on the region of Cuzco, Peru. Cuzco, located in the southern Andes, is the historic capitol of the Inca Empire. Much of the city still stands on Inca walls, this beautiful and enduring history the physical and cultural foundation of the city. Contemporary Cuzco, however, is a city of paradox and contradiction. Like many cities of great historical significance, Cuzco struggles between acting as a living, breathing city and an immense, static museum. Tourism is not simply an important part of the Cuzqueño economy, but is essentially the only source of municipal income. To sustain and grow this fundamental economic sector, Cuzqueño leaders are actively striving to commodify the city's unique local history by inventing and cultivating an Inca renaissance . While this largely artificial creation of an Inca open-air museum is often at odds with the quotidian needs of Cuzqueños, it is seen by city leadership as key to legitimizing Cuzco within a Peruvian, and global, context.¹

This Inca renaissance has resulted, however, in a city defined by preservation, pastiche, and invented history. Pre-Inca symbols are rebranded as emblems of the empire, rural monuments are relocated to the city center, and new monuments are constructed in superficial imitation of Inca architecture. Meanwhile, pervading this idealized reinvention of the glory of the Inca Empire is the ironic fact that “those who created the admired ancient civilization have been...socially denigrated and, until recently, politically disenfranchised [by 481] years of colonial and postcolonial

¹ Silverman

oppression.”² Therefore, the semiology, language, and architecture of the Inca Empire play a hugely conflicting role in the lives of Quechua Indians, representing the exaltation of their second-class heritage in order to manifest a vision imagined by Cuzco’s intellectual elite. This vision celebrates and legitimizes a history without celebrating its people. It offers economic opportunity at the cost of participating in the rewriting of history, of becoming commodified actors in a play. In order to inherit and possess the glory of the Inca, one must never have been Indian in the first place.

Thesis Statement

I therefore propose for Cuzco an architecture of resistance, simultaneously combatting homogeneous globalization, pastiche and superficial imitation, contrived stasis, and the symbology of denigration. It must be an architecture of acute and critical equilibrium, finding the enigmatic but crucial place between Cuzco’s contemporary interpretation of its past and its conflicting needs for the future. It ought to evoke rather than replicate Andean traditions, actively resisting artificiality and the creation of spectacle . However, it must also resist the placelessness so often created by modernization and globalization, rooting itself in contemporary society through the critical interweaving of the past, present, and future, and through the careful process of place-formation as opposed to image-creation. This process must be self-reflexive and extend beyond the design process into the formation and formulation of the building itself.

Project

In order to explore the creation of an architecture of resistance in Cuzco, I have chosen to design a Traditional Andean Language Center. While architecture is the foundation of place, language is the foundation of culture. We understand our world by telling stories, and these stories are conceived and shared using language. Thus, the sharing of language is the root of our comprehension of the world. In a region where many native languages have no written form and most are either dying or subject to discrimination, the establishment of a building for their collection, preservation, and dissemination, a dedicated space of linguistic sharing, offers the ideal opportunity to explore the spatial and architectural forms of the cultures embodied in traditional Andean languages, and the ways in which spoken language and architectural language intertwine and inform each other. I believe that this focus on language renders tangible and manageable the enormity of historical and contemporary Cuzqueño society, and offers an opportunity to understand and juxtapose the linguistic and spatial manifestations of cultural identity.

THEORETICAL FRAMEWORK

The theoretical framework of this thesis analyzes Cuzco in terms of three sets of contradictory forces facing the contemporary city: globalization/localization, the city as living museum, and history minus its creators. This section seeks to understand the dynamics of these forces as well as architectural theories and approaches conducive to their balanced resistance .

Globalization via Localization

While contemporary Peru seeks to leverage itself into the modern world, Cuzco actively and calculatedly aims to reestablish itself as the cultural, economic, and symbolic capitol of Andean civilization. Throughout Peru the discourse of modernization is inevitably carried out in terms of economic development, and international tourism has been declared at all levels of society to be a key catalyst for prosperity.³ Cuzco is therefore immersed in the active production of tradition and locality in order to establish itself in the global tourism market. Despite the rich and varied archeological and architectural layers of Cuzco, the municipality has decided – or understood – that in order to sustain and grow the tourist industry, simply visiting architectural ruins is no longer enough: international tourists must be offered a comprehensive ‘traditional’ experience.

In many ways, this persistent production, refinement, and performance of history has been extremely successful. As of 2002, eighty percent of all foreign tourists to Peru visited Cuzco.

However, between 1995 and 2000 ninety percent of all local industries and small business

³ Silverman 883



Image 1: 'Traditional' Inca dancer on train from Machu Picchu



Image 2: Inca culture commodified by Coca Cola

throughout the city failed, to be replaced by Lima owned or international corporations.⁴ The production of locality demanded by tourism appears to be unsustainable by local industry. This paradox is further manifest throughout Cuzco in what anthropologist Helaine Silverman describes as “the fundamental contradiction of global tourism, which diminishes cultural differences through international contact while simultaneously requiring and producing ‘authentic’ experiences of the Other and Otherness as a motivation for travel.”⁵ Globalization necessarily leads to homogenization, but archeological tourism demands uniqueness and ‘otherness.’ Cuzco is therefore fighting a constant battle between these two contradictory forces, the result of which is a selective and normative glorification of local history, inauthentic from the outset and battling the ever increasing power of global homogenization.

A neo-Inca Renaissance

In its attempt to create a total cultural experience, contemporary Cuzco has chosen to privilege its Inca past over other identities. In the context of anthropological tourism, the region’s most visible and abundant commodifiable resource is its Inca architecture, which forms the very foundations of the rural and urban landscape. Therefore, the reasons for building a preferential and comprehensive mythical identity around these architectural roots seem self-evident. Furthermore, the glorification of Inca history and the creation of a new Inca identity long precedes tourism in Cuzco because the



Image 3: ‘Traditional’ Inca flags next to a billboard

⁴ Silverman 887

⁵ Ibid. 888

Inca Empire, more than any other pre-Columbian Andean culture, signifies political and economic independence, widespread authority and power, and beneficent sociocultural acceptance.⁶ Highly desirable traits for an early 20th century city seeking postcolonial identity and self-sufficiency, these qualities remain relevant and applicable to a 21st century Cuzco struggling for national and global legitimization.

In less than a century the Inca Empire rose to power and through extensive conquest gained control of an area spanning approximately 3,400 miles and consisting of a multitude of ethnic groups.⁷ In order to maintain control over such an enormous and diverse population, the Inca developed a highly abstracted and geometric imperial aesthetic derived from distinct Andean ethnic groups and standardized so that it could be replicated and recognized throughout the empire.⁸ Geometricization and abstraction allowed for easier assimilation of new cultures into the imperial conceptual framework, and the development of this unifying aesthetic demonstrates the creation of an empire of incorporation rather than of force, in which a take-over was emphasized through subtle but pervasive aesthetic and cultural changes rather than consistent, overt reminders.

Such assimilation was enhanced by the use of conscripted labor for the creation of imperial architecture, which helped to teach and enforce the imperial aesthetic while still allowing for

6 Silverman 898
7 Stone-Miller 181
8 Ibid. 186



Image 4: Coricancha; Inca walls support the colonial Church of Santo Domingo

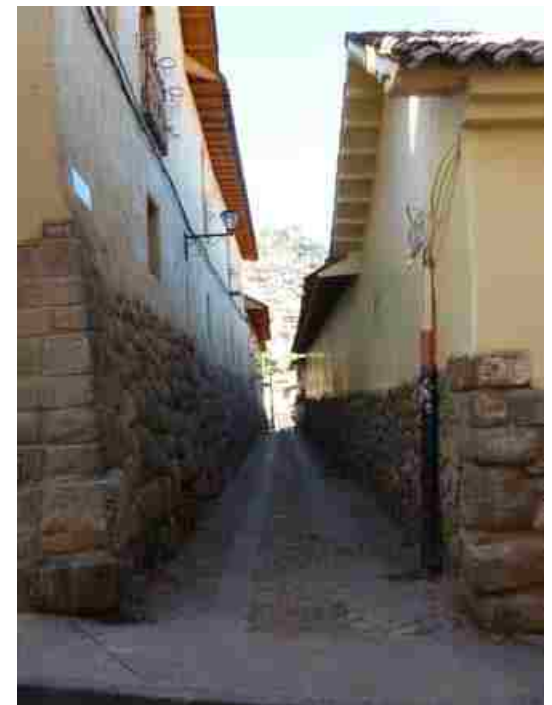


Image 5: Street in Cuzco showing Inca foundations



Image 6: Inca stonework merging into living rock

individual variation. In Inca architecture, naturalism and abstraction were interconnected and dependent upon one another. Nature was the mythological base of all Inca power, and thus a respect for the originality, beauty, art, and power of nature was essential. However, the blurring of the distinction between nature and architecture created an ambiguous landscape in which Inca presence was always implicit, whether actual or imagined. While many architectural elements were obvious and overt, subtle manipulations were difficult to detect, creating an element of doubt as to their existence and making overt architectural manifestations more difficult to ignore.⁹ This ambiguity served as a ubiquitous reminder of the power of the Inca, and sent clear messages about their omnipotence.

The attraction of this perceived historic omnipotence and ubiquitous, supraregional identity to contemporary Cuzco is understandable, and in the re-appropriation of this identity the Cuzqueño municipality chooses to not only ignore other historical realities and identities, but also to enhance and invent elements of an Inca past in order to more thoroughly and convincingly portray a modern day version of the empire. This involves creating throughout the city grand representations of an Incanized Peruvian history, such as the famous Avenida el Sol mural which was completed in 1992, is more than 5,000 square feet in area, and incorporates pre-Inca and Andean symbolism into a glorified and fanciful depiction of the Inca Empire.¹⁰ Elsewhere, Inca monuments are



Image 7: Mural on Avenida el Sol, Cuzco

⁹ Stone-Miller 190

¹⁰ Silverman 885

uprooted from their original context and placed throughout the city, and new 'Inca' monuments are constructed, like the iconic Monument to Pachacutec, commissioned in 1991 by then-mayor Daniel Estrada.

When faced with nation-wide criticisms of "insensitivity to the spirit of the ancient city" regarding the construction of new Inca monuments, Estrada stated that the monuments represented "the net expression of the capacity of the Andean man."¹¹ As Silverman notes in her article *Touring Ancient Times: The Present and Presented Past in Contemporary Peru*, Estrada was clearly aware that a successful tourist industry in Cuzco was dependent on the creation and marketing of a timeless and essentialized 'Andean' city.¹² This selective reinterpretation, appropriation, and glorification of Inca history offered the means for establishing such a timeless city, while exemplifying the irony and inherent paradox of globalization via localization.

A Living Museum?

As has been demonstrated, in Cuzco the inherent incongruity of localization as a means to global success has resulted in a homogenized, essentialized recreation of Andean history and tradition.

This is in part a necessary consequence of the international tourist industry, but the decision to privilege Inca history and to create a city-cum-museum is clearly far from incidental. While a



Image 8 Monument to Pachacutec, Cuzco

¹¹ Silverman 885, referencing a 1992 article in *Caretas*, a leading Peruvian news magazine

¹² *Ibid.*



Image 9: Coricancha and Church of Santo Domingo; an empty museum-like expanse

successful tourist industry in Cuzco depends on the consistent perception of historic authenticity, the result is a citywide stasis achieved at the expense of both genuine, critical historical representation and the dynamic, quotidian lives of diverse Cuzqueños.¹³

Thus Cuzco struggles with another level of conflict and contradiction. History and culture are continuous, dynamic forces, neither easily nor cleanly defined, preserved, or represented. Yet through the fleeting and superficial lens of tourism, the creation of authenticity demands a tidy, consistent, and immediately comprehensible depiction of history. Not only does the requirement for simple and instantaneous consumption support and reinforce Cuzco's selective glorification of the Inca Empire, but it also allows for historical pastiche and contextless monumentalization. The city is therefore being (re)created for visitors with no connection to or meaningful understanding of its authentic past; it has become a static museum full of artifacts stripped of context or connotation and contemporary interventions with no need for critical authenticity. Thus "Cuzco exhibits an ironic dehistoricization of history,"¹⁴ a static, timeless facsimile of a layered and dynamic past.

The museum-like stasis penetrating Cuzco's living streets is equally at odds with the city's contemporary culture. The ever-increasing preservation of the historic Inca building fabric

¹³ Silverman 887

¹⁴ Ibid.

threatens the creation of new and necessary quotidian spaces, as does the construction of modern Inca monuments. The disparity between the perceived needs of the tourist-centric city-as-museum and everyday Cuzqueños is demonstrated by the construction of a 1994 monument to Cuzco's mythical founders, originally surrounded by dense plants and a tall iron fence. These barriers clearly defined the monument's spatial role as that of a museum piece rather than a dynamic and much needed public space. When the fence was removed five years later and the plants replaced by stone steps, the monument became a 'lived space,' integrating tourism and quotidian life.¹⁵

Such integration between visitor and resident, between static museum and dynamic urban fabric, apparently does not occur with enough frequency however, as is evidenced by the "subverting practice of letting one's historic-element house or property decay to the point of falling down so that a modern, more beneficial edifice can be erected in its place."¹⁶

Furthermore, the number of visitors to the city and the infrastructure required to sustain tourism is overwhelming Cuzqueños and their quotidian public spaces. In the year 2000, 470,000 tourists visited Cuzco, far outnumbering its then population of 300,000. In 2011, the number of visitors rose to an estimated 1,500,000. If Cuzco continues to be successful in increasing tourism, "the effect will be to overdemand [the city] along every conceivable parameter."¹⁷ This will have profound adverse effects on how and where locals can inhabit the city, and limit their visibility



Image 10: Monument in Cuzco that provides usable public space

¹⁵ Silverman 891

¹⁶ Ibid. 890

¹⁷ Ibid. 891



Image 11: Tourists and a Quechua man beneath an Inca wall, Cuzco

and participation in Cuzqueño culture. The more the city is successful in creating an 'authentic' and comprehensive tourist experience, the greater the increase in the tourist population, and thus the greater the diminishment of the place and role of Cuzqueños. As with globalization and local identity, the forces in Cuzco allowing it to be both a consumable commodity and a living city, habitable by long-term residents, are inherently at odds.

History without its Creators

Aside from the physical effect on quotidian Cuzco of a neo-Inca renaissance and the formulation of a city-as-museum, the municipality's veneration of the Inca Empire "masks...harsh socioeconomic disparities in the contemporary city" and represents another pervasive cultural irony and contradiction.¹⁸ The descendants of the glorified Inca Empire, the indigenous Quechua, "have been the socially denigrated and, until recently, politically disenfranchised Indians of the past [481] years of colonial and postcolonial oppression."¹⁹ The creation of an Inca renaissance has been a top-down ideal, a perpetual citywide play orchestrated by the Cuzqueño elite, performed for international visitors, and engineered to gloss over historical and contemporary discrimination and the 'inconvenient' realities of Indianness. Cuzco's indigenous population is offered the opportunity for economic betterment if they play actors in the spectacle that is their own modified history, or if they carefully distance themselves from Indianness by forgoing native languages for Spanish and



Image 12: Roofs in Ollantaytambo

¹⁸ Silverman 891

¹⁹ Ibid. 883

leaving Cuzco for Lima or another more prosperous city abroad.²⁰

Therefore, indigenous Quechua have a conflicting and contradictory relationship to Inca symbolism and architecture. It simultaneously represents their unique tradition, the reason for their city's, and much of their own, contemporary economic success, the physical manifestation of their colonial and postcolonial discrimination, and the modern-day revision and erasure of their history. On yet another level, Cuzco embodies and manifests contradiction and paradox.

Culture and Language

In 1975, Peru's progressive military dictator Velasco Alvarado sought to accord widely spoken traditional languages national status and require their teaching in public schools. He recognized the pervasive oppression of non-Spanish speakers like the millions of native Quechua living in the Andes, and hoped to enfranchise them and further their chances of economic and social success.²¹

This campaign was initiated in part by a 1970 Education Ministry report entreating:

The necessity of overcoming the present violent Castellanzation and degradation of the aboriginal languages by [establishing] a system of bilingual literacy teaching, as a more effective, secure, and permanent Castellanzation, and comprehension and revalorization of the cultural patterns of each ethnic group.²²

Quechua was made an official language of Peru in 1975, but its teaching in public schools was

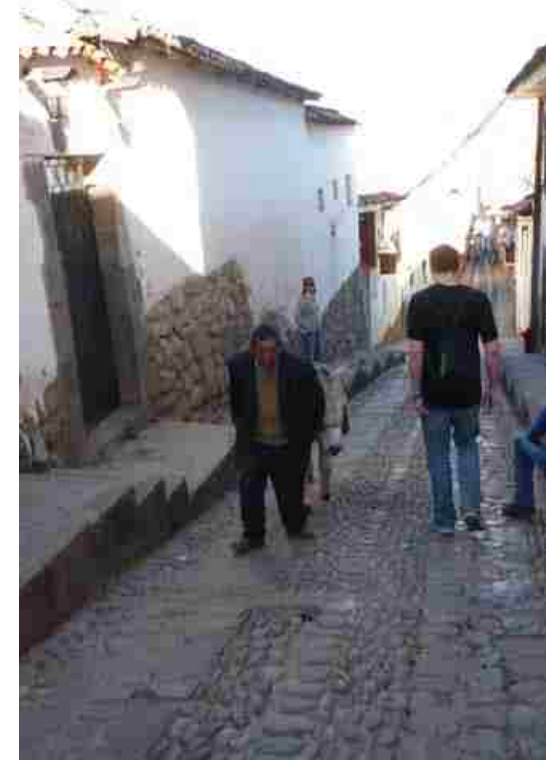


Image 13: A Quechua man and tourists on a street in Cuzco

²⁰ Ibid. 898

²¹ Silverman 890

²² Francis 27-8, as quoted in Citarella, 1990: 47

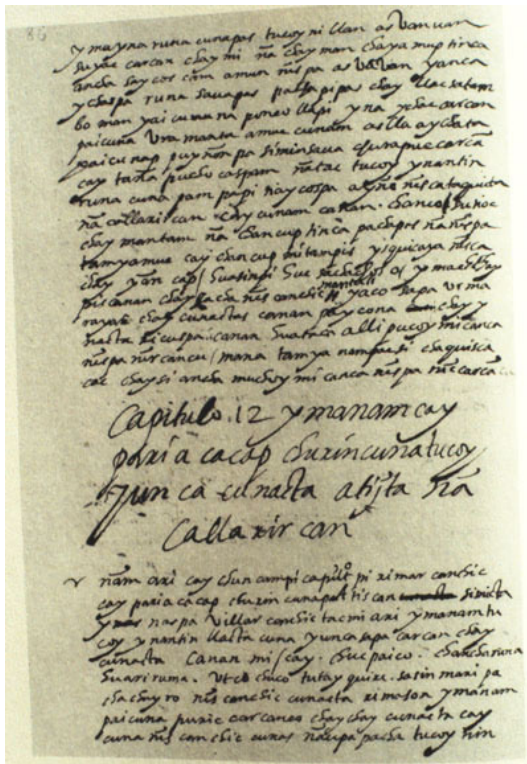


Image 14: Huarochiri Manuscript, a Quechua history of Andean Religion
<http://utpress.utexas.edu/index.php/books/salhua>

opposed at all levels of society. Vigorously fought by Peruvian middle and upper classes, many rural, non-Spanish speaking migrants to Lima also opposed the introduction of traditional languages into the school system, viewing Spanish proficiency as the path to profitable urban employment for their children.²³ Thus despite Alvarado's campaign and resultant changes in national language policy, by 1981 only 3.7% of Peru's school children were receiving a dual-language education.²⁴

Contemporary organizations such as the Academia Mayor de la Lengua Quechua seek a modern revalorization of the language of the exalted Inca, but as Silverman notes, the disparity between the initiators of Cuzco's Inca renaissance and the Empire's oppressed descendants makes any such campaign problematic.²⁵ Within the city's context of historical pastiche and revision, is championing the use of Quechua on the streets of Cuzco intended to empower impoverished native speakers or to complete the illusion of an idealized, timeless Andean city? Furthermore, while Quechua may be tied to modern-day poverty and oppression, it is in no immediate danger of being lost. However, of the ninety-four living languages in Peru, forty-seven are either threatened or near extinction; eleven Peruvian languages have already gone extinct.²⁶ Thus the complementary forces of prejudice and globalization call for cultural/institutional programs and sites dedicated to the critical study, preservation, and dissemination of traditional languages, in order to promote an authentic and pervasive revalorization of traditional languages and their cultures.

²³ Silverman 890

²⁴ Francis 28

²⁵ Silverman 890

²⁶ Lewis

A Critical Regionalism

The relationship between sociocultural questions and architectural responses is tenuous, the capacity for a building to provide more than simply a successful (or unsuccessful) space, limited. However, the built environment has an undeniably significant impact on our cultural landscape, and many architects, theorists, and historians have studied this influence and the ways in which an individual building can critically and authentically respond to issues beyond those of physical context.

Kenneth Frampton is undoubtedly one of the most influential contemporary theorists analyzing the role of architecture in a postmodern world, and his theories of critical regionalism seem highly applicable to formulating a design response to the unique cultural conditions in Cuzco. In a 1996 introduction to Frampton's 1983 *Prospects for a Critical Regionalism*, Kate Nesbit states: "Consistent with Frampton's writings here and elsewhere is a...concern about the manipulation of the consumer and the problem of architecture conceived as fashion or scenography. This commodification of shelter negates local identity and expression."²⁷ In the article Frampton describes the globalized mega-city as "patently antipathetic to a dense differentiation of culture, [intending] the reduction of the environment to nothing but commodity."²⁸

27 Nesbitt 468

28 Nesbitt (Frampton) 482

Frampton proposes a resistance to the homogenization and commodification of the contemporary built environment, seeking an architecture with the “capacity to condense the artistic potential of the region while reinterpreting cultural influences coming from the outside.”²⁹ He is careful to distinguish critical regionalism from the romantic connotations of ‘vernacular’, asserting that an uncritical historicization of culture and tradition is no more applicable to contemporary culture than placeless internationalism. For Frampton, this “is the paradox: how to become modern and to return to sources; how to revive an old, dormant civilization and take part in universal civilization...”³⁰ He states that a key response to this paradox, in fact the “salient cultural precept” of critical regionalism, is “place creation...against which the ceaseless inundation of a place-less, alienating consumerism will find itself momentarily checked.”³¹

In an article entitled *Why Critical Regionalism Today?* Alexander Tzonis and Liane Lefaivre expand upon simultaneous definitions of ‘critical’ in Frampton’s concept of critical regionalism. While ‘critical’ in this context refers to the careful and unromantic mediation by the architect of locality/tradition with globalism, it also refers to the quality of self-referential criticism employed by an architect and imbued into a critically regional buildings so as to “raise questions in the mind of the viewer about the legitimacy of the very regionalist tradition to which they belong.”³² In

29 Nesbitt (Frampton) 477

30 Ibid. 471

31 Ibid. 482

32 Nesbitt (Tzonis and Lefaivre) 488

other words, an architect should not simply employ careful evaluation and mediation throughout the design process, but should engage in a continual self-reflexive analysis of this process and its results. A building should employ unfamiliar, provocative references to both tradition and modernism so that viewers and inhabitants continually question the role of the building in both local and globalized society. It should “alert us through the poetics of its forms to the loss of place and community but also to our ‘reflective’ incapability to become aware of this loss while it was occurring.”³³

According to Tzonis and Lefaivre, the process of critical regionalism can carry out its self-reflective function through “defamiliarization” in which regional elements are carefully identified, decomposed, and recomposed. This is compared to “familiarization” in which iconic elements or those highly connected to a region’s memory or connotation are uncritically chosen and inserted into a new building. Thus truly “critical regionalism does not imply professional parochialism” but can be carried out by any proficient architect “committed to the understanding of local constraints.”³⁴

33 Nesbitt (Tzonis and Lefaivre) 488

34 Ibid. 499

Conclusions

Cuzco's path to continued economic prosperity presents the city with distinctive and conflicting challenges. The globalized commodification of its uniquely local history is at odds with both an authentic preservation and valorization of regional tradition and with the creation and perpetuation of quotidian spaces for native Cuzqueños. Cuzco's indigenous Quechua population, who benefit from Cuzco's tourist industry and economic success but often at the expense of ethnic and social equality, experience these contradictions uniquely and acutely.

One of the primary losses resulting from globalization is that of native language. Speaking a traditional language is often regarded as a sign of otherness and inferiority; in Cuzco Spanish is privileged in the academic system and its proficiency is viewed by both the elite and by indigenous peoples as the path to economic success. In Peru many native languages are either lost or in danger of extinction, and as language is one of the primary ways in which culture and tradition are understood and preserved, I argue that this linguistic loss has significant cultural impacts.

I also believe that there is a strong connection between spoken language and architectural language, and that they have unique and complementary ways of manifesting culture and tradition. Therefore in order to explore the sociocultural context of Cuzco architectonically, I propose the creation of a space dedicated to understanding, preserving, and disseminating this singular but

important manifestation of culture, the indigenous language. I believe that this narrowing of focus renders tangible and manageable the enormity of historical and contemporary Cuzqueño society, and offers an opportunity to understand and juxtapose the linguistic and spatial manifestations of cultural identity.

My approach to creating a relevant and appropriate 'house' for native languages in Cuzco draws heavily on the concepts of critical regionalism explored by Frampton, Tzonis, and Lefaivre. My design process understands and utilizes the dual definitions of 'critical,' striving to mediate the use of traditional methods or forms in a globalized city and contemporary building, while remaining self-analytical about the role, validity, and legitimacy of regionalism in this specific project, in its unique context.

METHODOLOGY

Goals and Objectives

The goal of this design project was to develop a strong and integral relationship between site, users, program, tectonics, and language. I hoped to create a building that valorizes native languages and traditions by offering them physical, permanent containment and meaningful spaces for expression and sharing. I hoped to create spaces of solid permanence and dynamic engagement, and to explore the ways in which something ephemeral and intangible like language can be rendered tangible and sustainable, while still allowed to grow and change.

Through this process, I explored the creation of a truly regional, critical architecture privileging site, function, materiality, and traditional construction techniques, developed as a necessary and inevitable response to unique contextual conditions. In so doing, I hope that this building demonstrates the potential for a globally relevant application of cultural and architectural locality.

Site Selection Criteria

It was integral that this project be sited within the context of the Sacred Valley, along the journey taken by visitors from Cuzco to Machu Picchu. There are many small Andean towns along this route with a strong traditional architectural, cultural, and linguistic presence. Furthermore, the economy of this region is almost solely dependent on tourism, so the number of visitors to a site in this area would be consistently high. Thus the Traditional Andean Language Center had the



Image 15: Town of Ollantaytambo and mountainside path leading to the Andean Language Center

opportunity to be sited along a heavily trafficked route, accessible to visitors and locals alike. Along this route it can engage the dramatic Andean topography, acting as a linguistic stronghold nestled into the mountainside.

Architectural/Design Methodology

In order to achieve my project goals and respond to the established forces of contradiction in Cuzco, I defined a set of overall architectural responses/processes that I followed throughout the design process:

- evocation rather than replication (a critical understanding and application of the roots of regional architectural tradition, construction methodology, and geographical response)
- allowing the program and site to inform the building's form (a programmatic and contextual exploration over a formal one)
- a synthesis of relevant and applicable traditional methodology with contemporary building materials and forms
- place-formation, not image-creation (an emphasis on the authentic and relevant formation of spaces as opposed to the creation of an image or icon)

Throughout the application of these processes I strove to construct a self-reflexive design process and to instill that ideal into my building, privileging the concept highlighted by Tzonis and Lefaivre of defamiliarization over its antithesis familiarization with resultant romanticism and pastiche. I

endeavored to take the abstract, sociocultural, or intangible concepts that I identified in my scope and understand them in architectural terms. An important element of my approach to this project was an understanding that I cannot, nor should I try, to resolve large social issues with one building design. However, those elements of the Sacred Valley's cultural and spatial context that could be explored in built form offered the opportunity for a richer, more meaningful, and ideally more enduring design project.

PRELIMINARY FINDINGS

Site/Context Analysis

Architecture

The Cuzco region is characterized by an overt stratification of architectural history. Inca walls form the foundations of many of the city's more contemporary building structures, and both the urban center and suburban and rural areas are scattered with monumentalized as well as seemingly forgotten ruins. Within the city, Inca foundations support Spanish colonial structures like the famous Church of Santo Domingo, as well as postcolonial republican buildings and diverse contemporary constructions. In rural Cuzco, Inca ruins share the landscape with stand-alone farmhouses and small villages.

Climate

Ollantaytambo, the site of the Traditional Andean Language Center, is located at 13° S latitude , 72° W longitude, with an elevation of 9,160 ft. Ollantaytambo is located in the Urubamba river valley in the Andes, and is surrounded by the Vilcabamba Mountain range. It has a subtropical highland climate, meaning that it is characterized by two seasons: a rainy season from November to March, and a dry season from April to October. Precipitation levels average four inches per month in the rainy season, and less than one inch monthly during the dry season. Cuzco has minimal annual temperature variation, averaging between 51° and 55° F year-round. However, the high elevation means that diurnal temperature swings can be extreme, with up to 30° F variations. Cuzco's annual

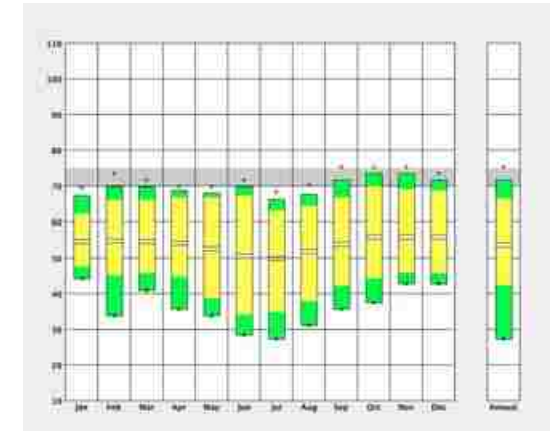


Image 16: Annual temperature range in the Cuzco region

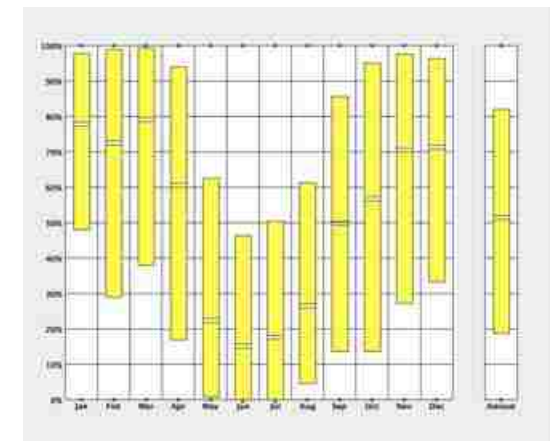


Image 17: Annual cloud cover in the Cuzco region

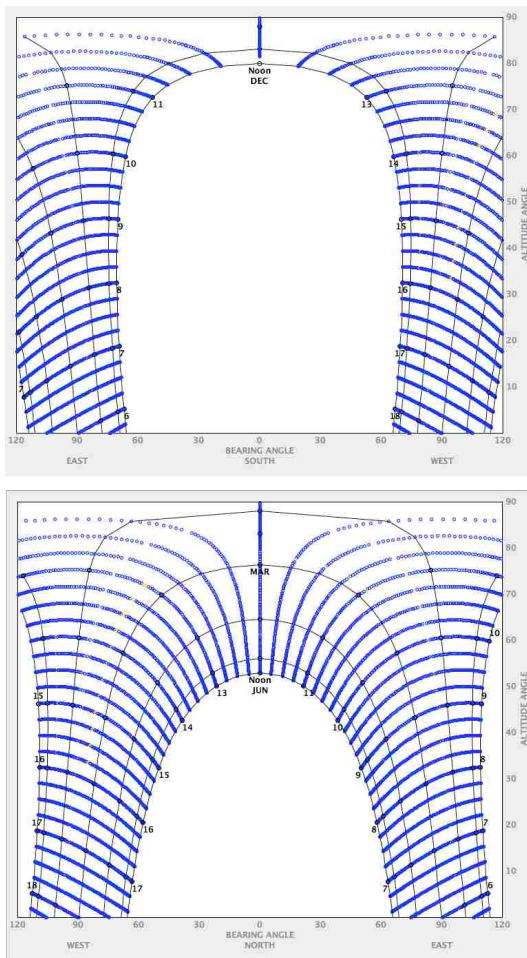


Image 18: Annual sun angles in the Cuzco region

cloud cover is directly correlated to its two seasons. While its average annual cloud cover is 52%, in the rainy season the average is closer to 75%, and this drops to 20% in the dry season. The sun angles in Cuzco are 102° in December, 75° in March and September, and 52° in June.³⁵

Topography

Ollantaytambo lies in a valley surrounded on three sides by mountain peaks. The Urubamba river cuts through the town to the south. Inca canals run throughout the town, still fed by mountain streams, and the slopes around Ollantaytambo contain Inca ruins, most notably a series of large agricultural terraces and the ruins of granaries.

Demographics

The permanent population of the Cuzco region is greatly outnumbered by tourists, despite that fact that the area is growing rapidly. Between 2007 and 2009 Cuzco's population increased from approximately 320,000 to nearly half a million inhabitants. However, reports by Peru's department of Foreign Commerce and Tourism indicate that a record 1.5 million tourists visited the city in 2011.

Design Implications

The topography of the Sacred Valley means that this design project has the opportunity to be sited within the mountainous slopes of the Andes, without being greatly removed from an urban context. The relatively cold temperatures and extreme diurnal temperature swings make this a perfect region in which to use thermal mass. Heat can be stored during the warmer days (especially during the sunny dry months) and released during the cold nights. Traditional architecture throughout Cuzco such as that of the Inca always took advantage of the properties of thermal mass, using local stone and earth to create thick walls with small, strategically placed openings. While the consistently cool/cold temperatures of the region mean that passive cooling is feasible, much of the year the building will likely need active heating to keep its internal temperatures within the comfort zone.

The Sacred Valley's proximity to the equator means that its sun angles are relatively high; glare control on northern and southern facades is easily manageable. Eastern and western facades require shading in glare sensitive areas for early morning and late afternoon low sun angles. Due to low annual temperatures, solar heat gain is not be an issue and may in fact be an asset, providing the opportunity for supplemental passive heating during sunny months. However, care should be taken to balance glazing amounts to allow for solar heat gain but reduce conductive heat loss.

As a rule, the design of this building references local, traditional, and vernacular climactic



Image 19: Ollantaytambo Valley

responses and strategies, as they have been highly regionally adapted by centuries of necessity and refinement.

Users

The primary users of the Traditional Andean Language Center will be visitors to the region. In an area with such a selective representation of history, the Language Center offers an experiential counterpoint. It curates an experience of the region based not on an idealized tourist-centric construction, but instead upon native language, a fundamental and encompassing core of culture. The building will also be used by native Andeans with knowledge of traditional languages or a wish to engage with native language and culture in a dedicated and meaningful context. Speakers of native languages can use the Language Center as a space to record or transcribe narratives, either traditional cultural stories or individual accounts of their personal lives. At the Language Center they will not only have access to the necessary technology for this process, but the building will ensure the valuation, preservation, and endurance of their languages and their past. The Language Center will also offers native speakers a space for informal conversation, or for a more formal dissemination of their linguistic knowledge. It will offer them a place to discover, read, and listen to narratives in traditional languages, ideally housing a wider and more centralized collection of resources on traditional Andean languages than is available anywhere.

Speakers of traditional languages will also have the opportunity to work at the Andean Language

Center as translators, transcribers, teachers, interviewers, collectors, and curators, using their unique knowledge to further the growth of the center and the authentic and accurate understanding and valorization of traditional languages. Throughout these processes, they will also have the opportunity to explore other Andean languages and cultures.

Another important user group will be native Andeans who do not speak a traditional language, like the many children of parents who wished them to learn only Spanish when they were young. When they grow up however, they may want to learn or at least become familiar with the languages of their childhood and ancestry. The Language Center will offer them a place for formal linguistic education or for informal discovery and connection.

The building will also be used by linguists, historians, sociologists, anthropologists, or other academics that are visiting or living in the Cuzco region and interested in studying Andean languages and cultures. They will use it as a place of linguistic research: they will analyze and catalogue artifacts, compare languages and language subgroups, complete translations, and interview native speakers or those with knowledge of traditional languages. They will also be teachers and curators, gathering and staging the languages in their myriad forms and maintaining and growing the Language Center.

The Language Center will be run and maintained by a staff of librarians, curators, and administrators.

Members of the key user groups will most likely fill these roles, either as volunteers or paid staff members.

Building Spaces

The Traditional Andean Language Center is comprised of a series of terraces climbing the steep slope of a valley, each terrace housing a different programmatic function. The first (entry) terrace welcomes visitors to the Language Center, and a series of adaptable displays introduces Andean Languages and regional history. Two heavy walls follow the site topography and define exterior views.

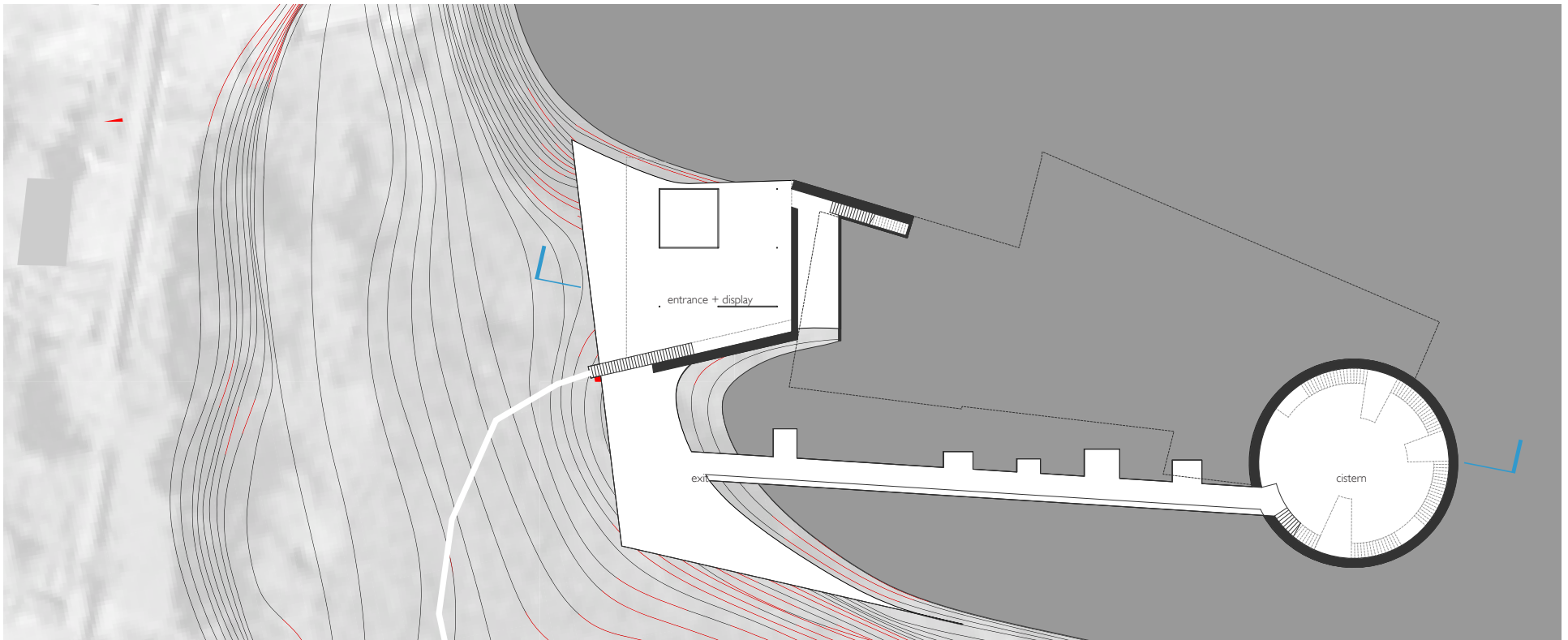


Image 20: Entry Terrace

The second (education) terrace also houses a series of adaptable stations, with equipment for language playback, recording, and viewing. The partitions can be moved to enclose small classes or spaces for intimate conversation or interviews. A second pair of heavy walls follow and frame the opposite side of the building's valley than those of the terrace below. Buried in the earth behind the education terrace is the lower level of the archive, which contains physical linguistic artifacts. A central core reaches up into the archive terrace and can be used to view and contribute to digital linguistic artifact storage. Small research stations can be set up on this terrace using its movable panels, and a final set of heavy walls direct views opposite those of the education terrace.

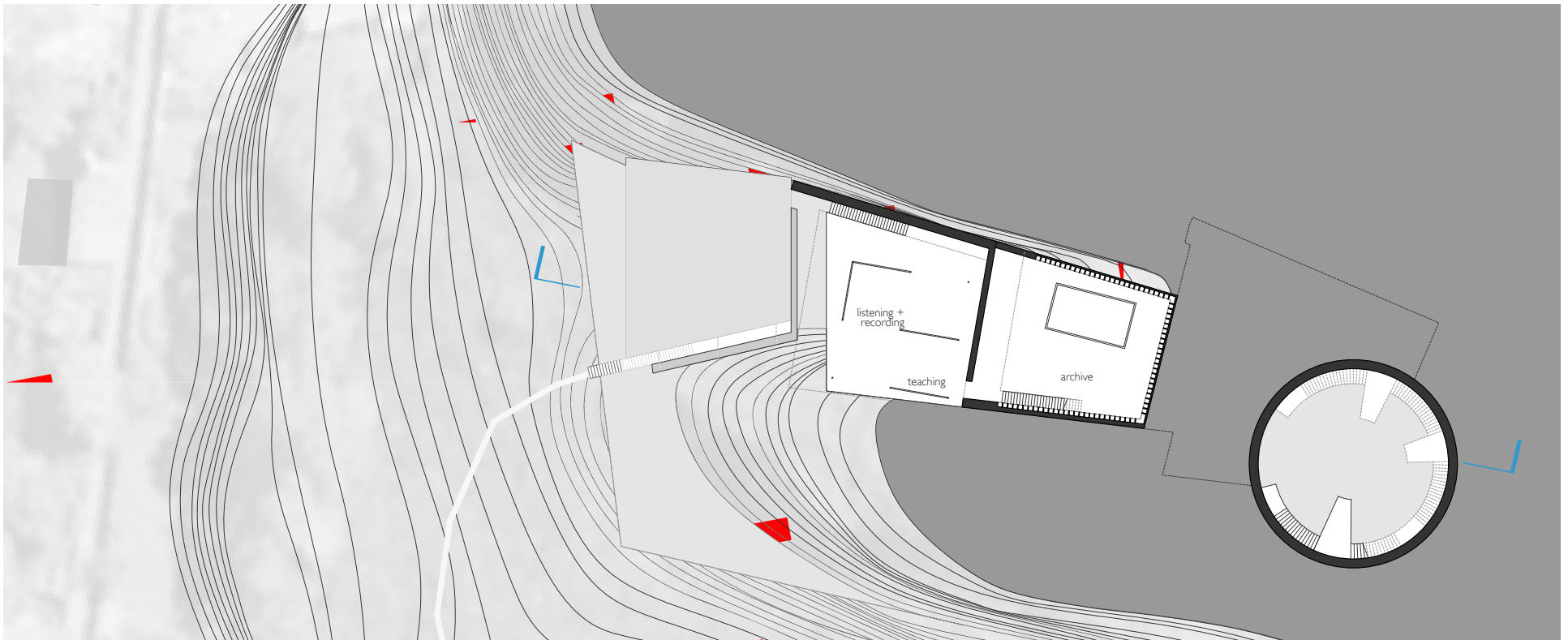


Image 21: Educational Terrace and Lower Archive

The fourth and final terrace is the cistern terrace. Unlike the previous three terraces this one is without panels or a roof. It leads simply to the language cistern, into which visitors descend. The cistern is in near darkness and is encircled by a spiral staircase with platforms that jut out over the water below. Recordings of stories, songs, interviews, and conversations in native Andean languages reverberate throughout the space, fully immersing visitors in an auditory linguistic experience. A canal of water fed by the cistern flows back down the valley and leads visitors through a tunnel back to the entry terrace.

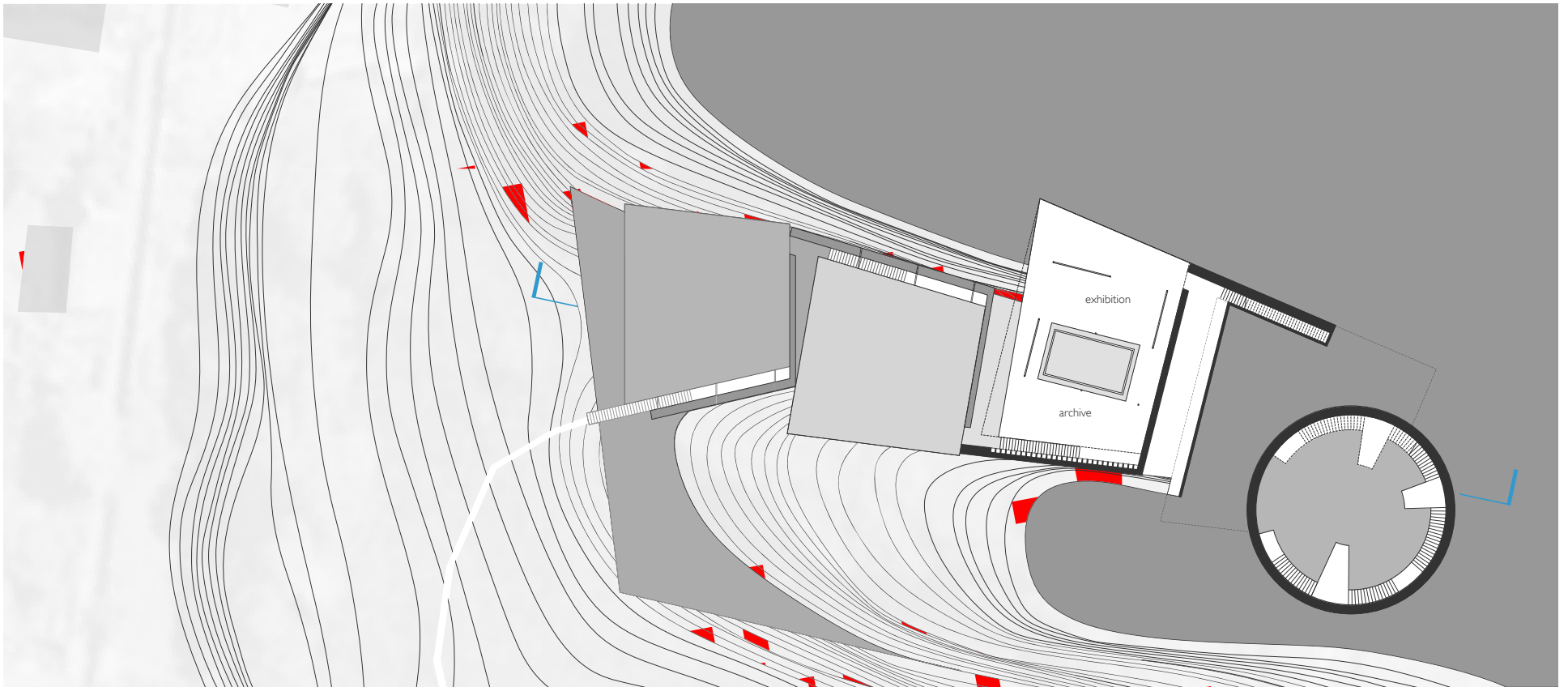


Image 22: Archive Terrace and Cistern

Tabulation of Spaces

Entry Terrace.....	3300 ft ²
Education Terrace	3300 ft ²
Archive.....	8200 ft ²
Cistern Terrace.....	3000 ft ²
Cistern	3800 ft ²
Bathrooms (4).....	400 ft ²
Office.....	400 ft ²
Total.....	22,400 ft²



DESIGN PROCESS

Image 23: Early design sketch

Language as an Architectural and Cultural Lens

Throughout the design process, this thesis conceived of language as the seed of culture. We understand and construct our world by telling stories, by sharing language, and the establishment of a dedicated space of linguistic exploration has the opportunity to offer native Andean languages and their cultures a physical and symbolic core in which to root, grow, and establish legitimacy in contemporary society. It will give native Andeans a place to learn about and contribute to the ongoing history of Andean language and culture, and offer visitors a unique means of experiencing the continuum of traditional and contemporary Andean society, offering an alternative lens through which to view the region's rich traditions. While it would be difficult to address an entire cultural history and contemporary society in a single design project, using traditional language as a lens allows a narrowing of functional and programmatic focus. Yet significant elements of the region's cultural continuum can be explored, from Inca origin myths and the sacred importance of earth and water, to the primarily oral tradition of most native Andean Languages.

On the diagrams to the right the orange dots represent distinct Andean languages or language families and the relative size of their dispersion. The site of the Andean Language center in Ollantaytambo lies at the center of both the ancient Inca Empire and contemporary concentrations of traditional Andean languages, making it an ideal location for a center dedicated to Andean Language revalorization.

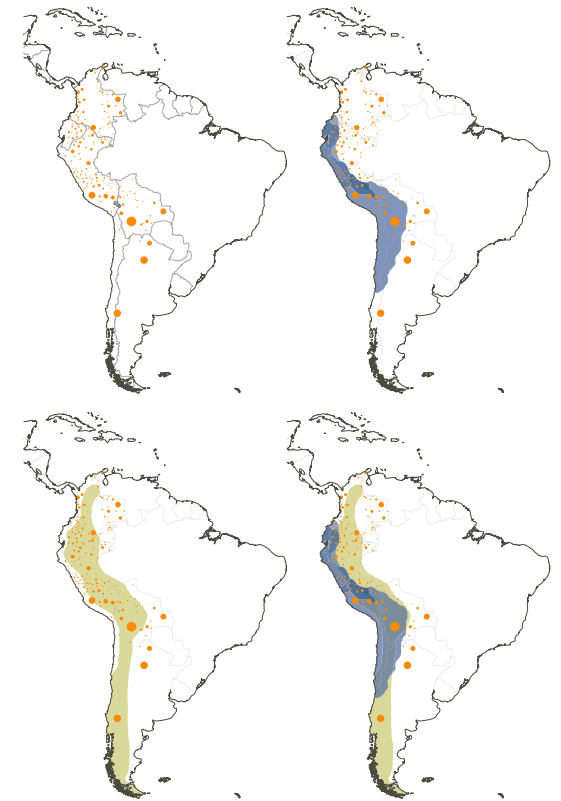


Image 24: Diagrams showing Inca Empire, Andes Mountains, and Traditional Andean Language concentrations



Image 25: Inca canals in Ollantaytambo



Image 26: Inca agricultural terraces in Ollantaytambo



Image 27: Inca granaries in Ollantaytambo

The Continuation of a Journey

Visitors to the Sacred Valley stop in Ollantaytambo on their way from Cuzco to Machu Picchu. Unlike Cuzco, Ollantaytambo is small and rural, and is also the oldest continuously inhabited town in the Inca Empire and in all of South America. The buildings are of original Inca construction, the Inca streets flanked by canals still carrying rushing water from springs on the mountainsides to the town below. All but two of the roads offer pedestrian only access, so visitors walk through these living Inca streets to reach the ruins overlooking the town. To the west large agricultural terraces climb the hillside, and to the east, above the site of the Language Center, Inca granaries sit high on the mountain slopes, following the steep topography so that each level was able to take advantage of the valley's hot sun and arid wind. The storage of this season's food and the seeds of next season's crops high on the mountainside also ensured their protection and preservation.

Like the granaries, the Language Center sits above the town, a stronghold for Andean languages. Visitors to Ollantaytambo journey on foot to the Language Center, walking through the living Inca streets, hearing and seeing the water still rushing throughout, centuries after the town's conception. They climb the mountainside and begin to experience the town in the context of the valley, and then to understand the profound and dramatic Andean landscape. Once visitors walk through Ollantaytambo and climb the mountainside, they reach the Andean Language Center, nestled in a valley overlooking the town.

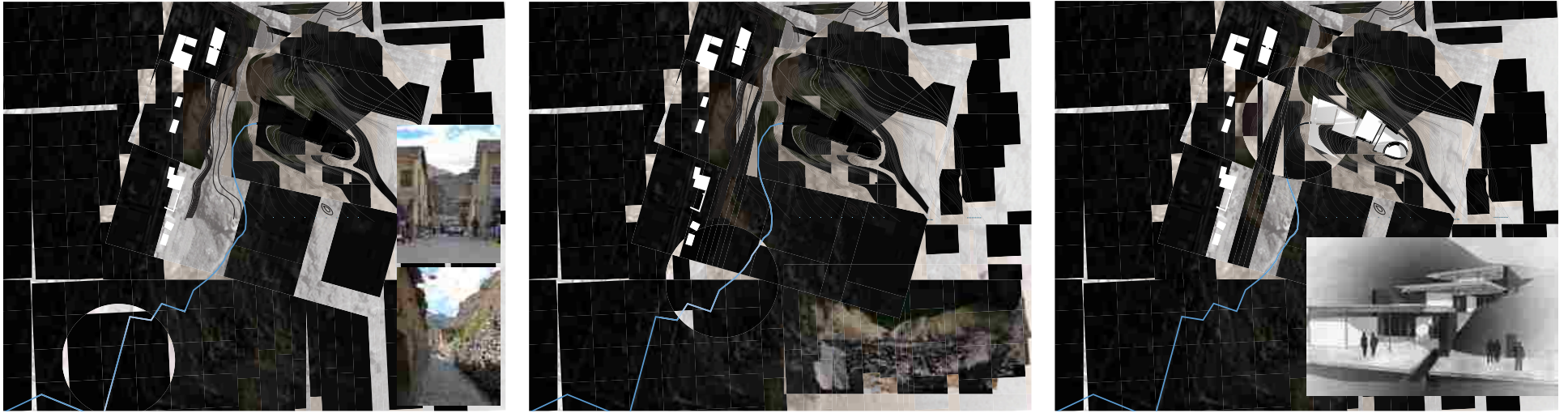


Image 28: Journey from Ollantaytambo to the Andean Language Center

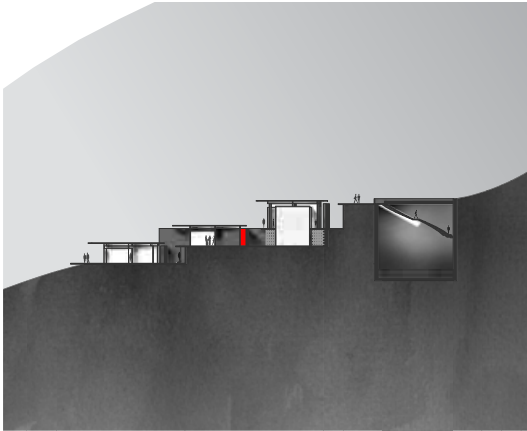


Image 29: Building Section

The building is defined by a series of heavy walls that respond to the steep sides of the valley. The walls climb the hillside on a sequence of terraces, forming and guiding an experiential journey through the valley in which linguistic exploration and geographical perception intertwine. The walls of each terrace inscribe a different programmatic space: an entry pavilion that introduces Andean languages, a series of speaking, recording, and listening pavilions, an archive and exhibition pavilion, and a language cistern. While the heavy walls of each terrace define the journey through the Language Center and curate geographic views and experiences, a series of movable panels on a light structural grid create nodes of linguistic experiences at each stop.

Upon leaving the streets of Ollantaytambo and climbing the mountainside, visitors reach a staircase leading them up to the entry terrace of the Andean Language Center. They are guided through displays towards a slit in the back wall through which they find a staircase to the teaching terrace, lighted by a similar slit in the roof above. On the teaching terrace the panels can be moved to form nodes for listening, making recordings, and enclosing small classes. The fixed structural system and moveable panels allow for adaptability, as display and educational needs change throughout the life of the building. The heavy walls follow the curve of the topography on one side, opening the terrace to the other and curating a view of the landscape both near and far. As on the entry terrace, a slit in the heavy wall at the back paired with a highlighted staircase guides visitors, leading them to the archive.



Image 30: Education Terrace

The archive occupies both the back of the teaching terrace, carving into the ground behind, and the terrace above. The heavy walls defining the archive are carved into shelves for physical artifact storage. A light double-height box bridges both levels, and inside the box digital linguistic artifacts can be accessed and projected, including recordings and videos made by visitors to the center. The archive therefore acts as both a physical storehouse and a venue for contemporary digital exploration, contribution, and preservation.

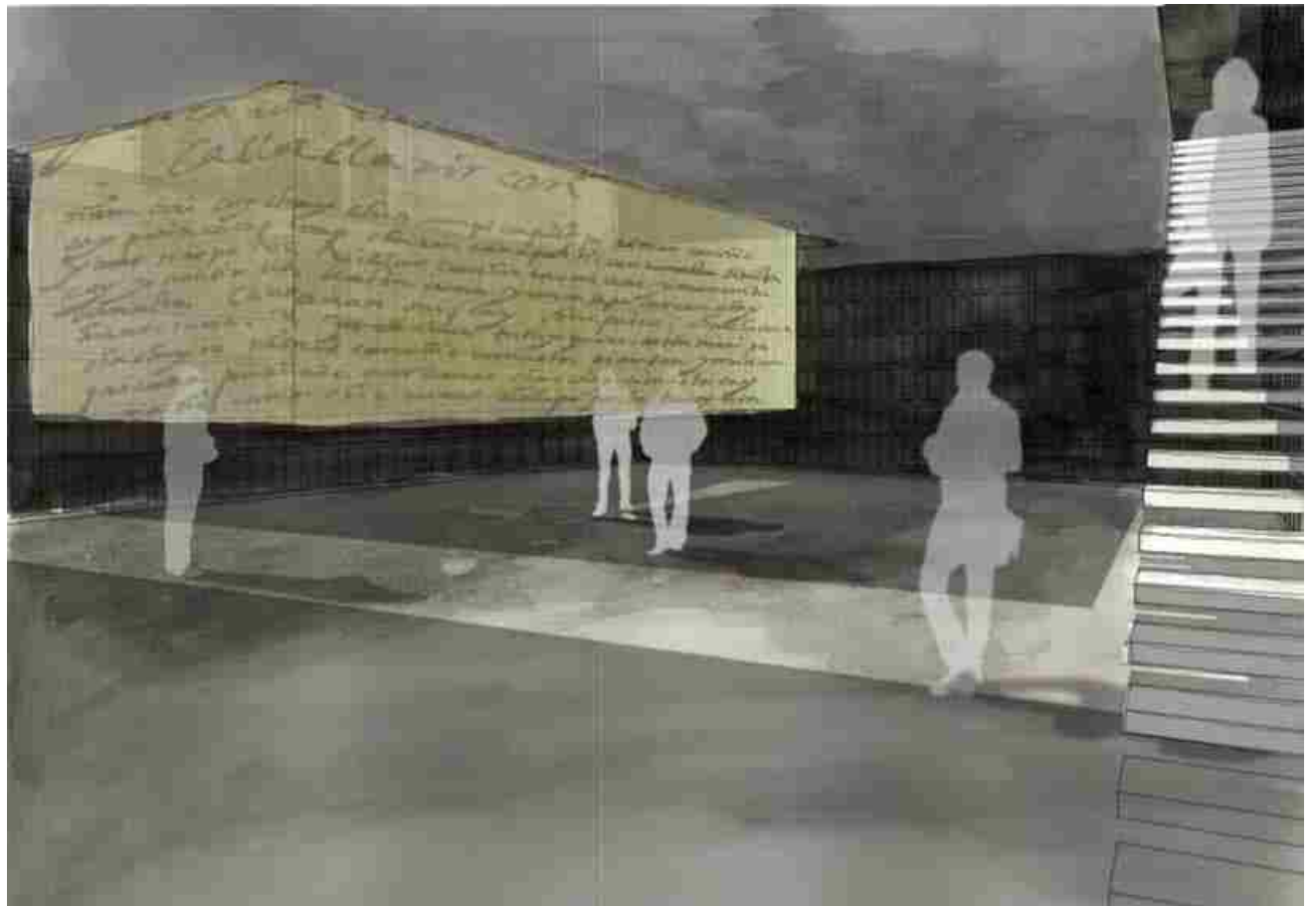


Image 31: Archive



Image 32: Archive Terrace

After leaving the archive terrace, visitors climb to the final terrace, which disappears into the end of the valley. A circular wall emerging from this terrace and the slope to the south guides visitors to a set of stairs descending into a dark cistern, fed by one of the natural mountain springs that supplies water to the canals of the town below. The still water at the base helps projected Andean languages reverberate throughout, and as visitors descend back into the earth toward water from the spring, the linguistic experience becomes fully visceral. At the base of the cistern a dimly lighted path with a canal of rushing water guides visitors through the earth back to the entry terrace, onto which they reemerge into the Andean valley.



Image 33: Cistern

Conclusions

The Traditional Andean Language Center seeks to continue a journey in Peru's Sacred Valley that began centuries ago and in infinite Andean valleys and peaks. The Language Center's terraces attempt to use strategic architectural intervention to curate an intellectual linguistic experience, heavily intertwined with geographic interaction. The journey then continues with a complete immersion into the earth, allowing distance from, and processing of, the academia of the terraces. This fully visceral experience brings visitors back to the very foundations of history, culture, and language.

Language is a constantly evolving phenomenon, intangible yet nonetheless powerful in its containment of cultural meaning and longevity. It necessarily engages and invokes both key societal experiences and the everyday lives of its speakers, immortalizing myths, stories, and memories, streets, towns, and landscapes. Since the time of the Inca, language and architecture in the Sacred Valley have been inextricably linked, yet in the design of the Andean Language Center I sought neither to imitate nor replicate Inca architecture: Ollantaytambo and later Machu Picchu offer pure Inca architectural experiences. Nor did I seek to compete with the landscape, designing an icon or an object. Instead I sought to continue a spatial and cultural journey that had long since begun, by exploring and interweaving language and architecture, the foundations of both our cultural and physical world.

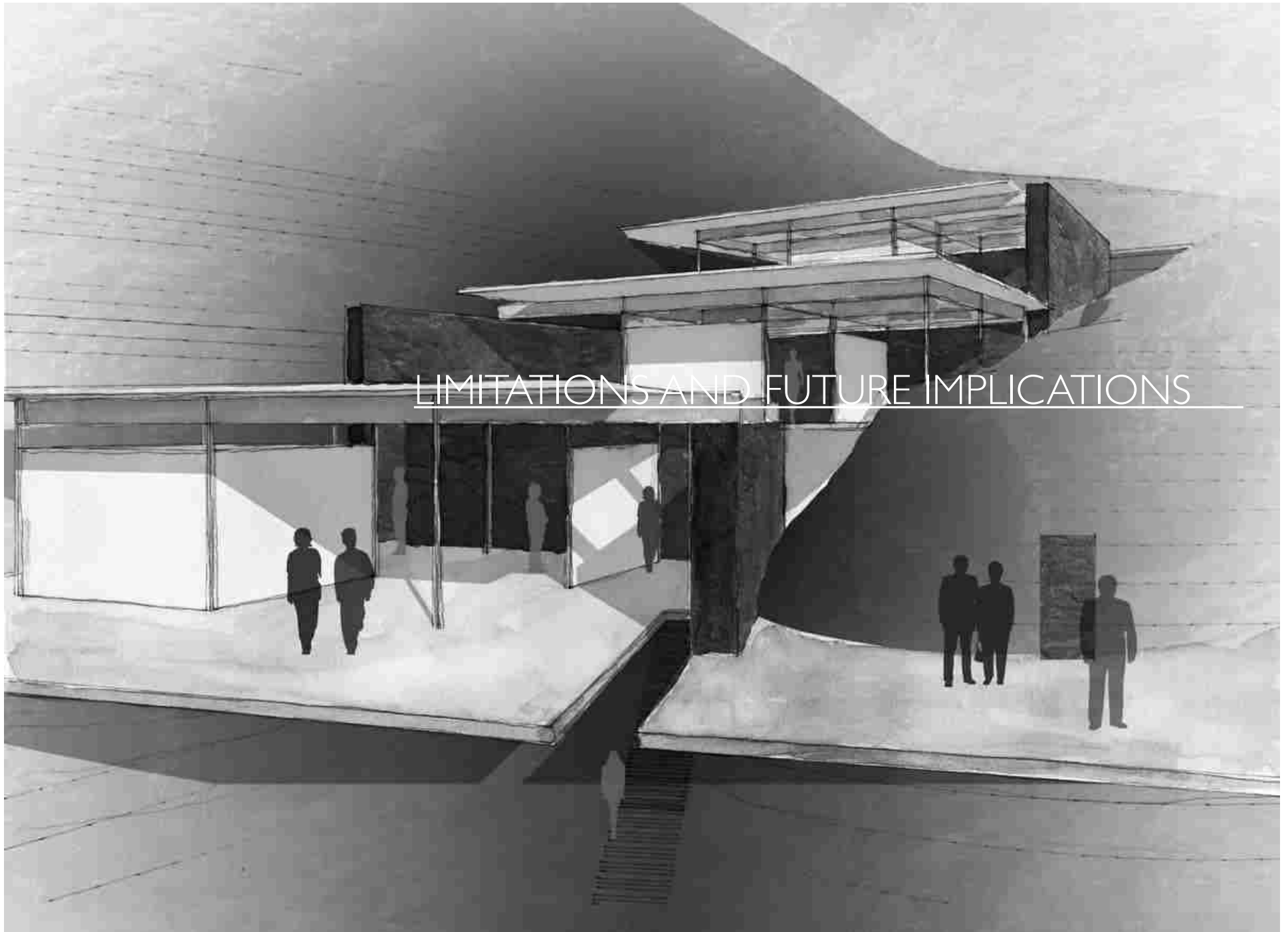


Image 34: Traditional Andean Language Center

Throughout the theoretical and design development phases of this thesis, two significant questions continually arose. The first dealt with the issue of siting; specifically, should the Andean Language Center be in an urban, storefront context, or should it be a stand-alone building, removed from the city? The second question concerned my position as an outsider to Peru and its cultures. How would I be able, with any success, to design a cultural building that was meaningful, appropriate, and focused? Throughout this project, responses to these two questions were proven to be highly related, capable of informing and strengthening one-another.

In order to begin to answer these questions, I chose to narrow my cultural focus to native languages. Language bridges countless elements of history and society while offering a clear and specific lens through which to explore regionalism and culture. Furthermore, the role of language as the cultural structure of the world mirrors that of architecture, its physical structure. In the Sacred Valley in particular, both Inca architecture and Inca language have an enduring and timeless solidity and significance that is nonetheless threatened in contemporary society. Their omnipresence and the threat of their devaluation offers a rich, layered, and challenging context in which to design.

My role as a cultural outsider allowed me to further narrow this project's focus. I arrived at this thesis topic because of an enduring personal and academic passion for Inca architecture, and was

able to visit Peru after nearly ten years of research on the Inca Empire and its built environment. As a visitor with this background, I was able to appreciate the level of engineered superficiality, pastiche, and stasis offered to tourists in the Sacred Valley. My research into class discrimination and the devaluation of native Andeans was supported by observation and discussions with Cuzqueños, emphasizing the paradoxical roles in contemporary Cuzco of Inca history and Inca descendants. I therefore choose to construct this project around my unique view and expertise: I am able to understand how the region's history and culture are being represented to visitors, see the holes in this fleeting perspective, and envision a response aimed at offering tourists to the region a counter-experience. The reasons for the devaluation and discrimination of traditional cultures and languages are varied and complicated, but a perceived lack of global and enduring importance contribute significantly. The Traditional Andean Language Center aims to begin the process of revaluing Andean languages and cultures by physically and ideologically reestablishing their importance, while offering a counter-point to the contemporary tourist experience of the Sacred Valley.

The specific roles of the Traditional Andean Language Center – revalorization and counter-point – are key in the choice of a site. I envision the Language Center as the foundational building in a system of satellite Language Centers, some located in dense urban cores offering language classes and collecting interviews and artifacts, others serving more rural populations and visitors along the journey from Cuzco to Machu Picchu. This first and most fundamental building, however, must

embody permanence and value, hence its invocation of the Inca granaries above its site. It must be accessible yet distinct, clearly of value due to its siting, hence my initial conceptualization of the Language Center as a seed bank, in which something precious is carefully stored so that it can take root and flourish, extensively and indefinitely.

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