

Heritage, Education, and Urban Resilience: Building Alternative Futures in Port-au-Prince, Haiti

GSAPP

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Fondasyon konesans ak libète Fondation connaissance et liberté

MASS.



Table of Contents.

Acknowledgments.	6
Executive Summary.	9
Studio Aims and Scope.	10
Key Findings and Recommendations.	13
Introduction and Background.	15
Historical and Political Context.	16
Urban Development and Policy.	18
Education as an Agent of Change.	20
The Catalytic Potential of Heritage.	24
Methodology.	29
Lenses and Objects of Study.	30
Methods.	31
Research Challenges and Adaptations.	34
The Gingerbreads and Their Context.	35
The Gingerbread Style.	36
The Pacot Neighborhood.	40
Walls as Urban Features.	44
Educational and Cultural Gingerbreads.	57
Future HELP Campus.	81
Instrumentalizing Heritage.	87
Community Resilience.	88
Creative Placemaking.	95
Financing Tools.	106
Scenario Planning Analysis.	119
Proposals.	123
Networked Capacities.	124
Streetscape Experience.	129
Heritage Programming.	134
References.	137
Bibliography	138
Image Credits	146





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HELP students and Columbia professors at Villa Rosa.



Columbia student team.

This report was produced by students in Columbia University's Graduate School of Architecture, Planning, and Preservation (GSAPP), as part of a joint Historic Preservation (HP) and Urban Planning (UP) studio in the Fall of 2017, in cooperation with a team of students from the Haitian Educational and Leadership Program (HELP):

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This studio builds upon work undertaken after the 2010 earthquake to assess the Gingerbread architecture of Port-au-Prince by the following organizations and projects:

The Gingerbread Houses of Port-au-Prince, Haiti (report of the 2015 GSAPP studio)
Fondation connaissance et liberté/ Fondasyon Konesans Ak Libète (FOKAL)
World Monuments Fund (WMF)

L' Institut de Sauvegarde du Patrimoine National (ISPAN) International Council of Monuments and Sites (ICOMOS) Pictometry International Corporation

The GIS Corps of the Urban and Regional Information Systems Association (URISA)

Quartiers pour Haïti

Association of Haitian Architects and Urbanists (ASSHAU)

Gingerbread: Patrimoine de Port-au-Prince (a masters thesis by Lisandre Jordan)

Maisons Gingerbread à Port-au-Prince (an exhibition curated by Daniel Elie)

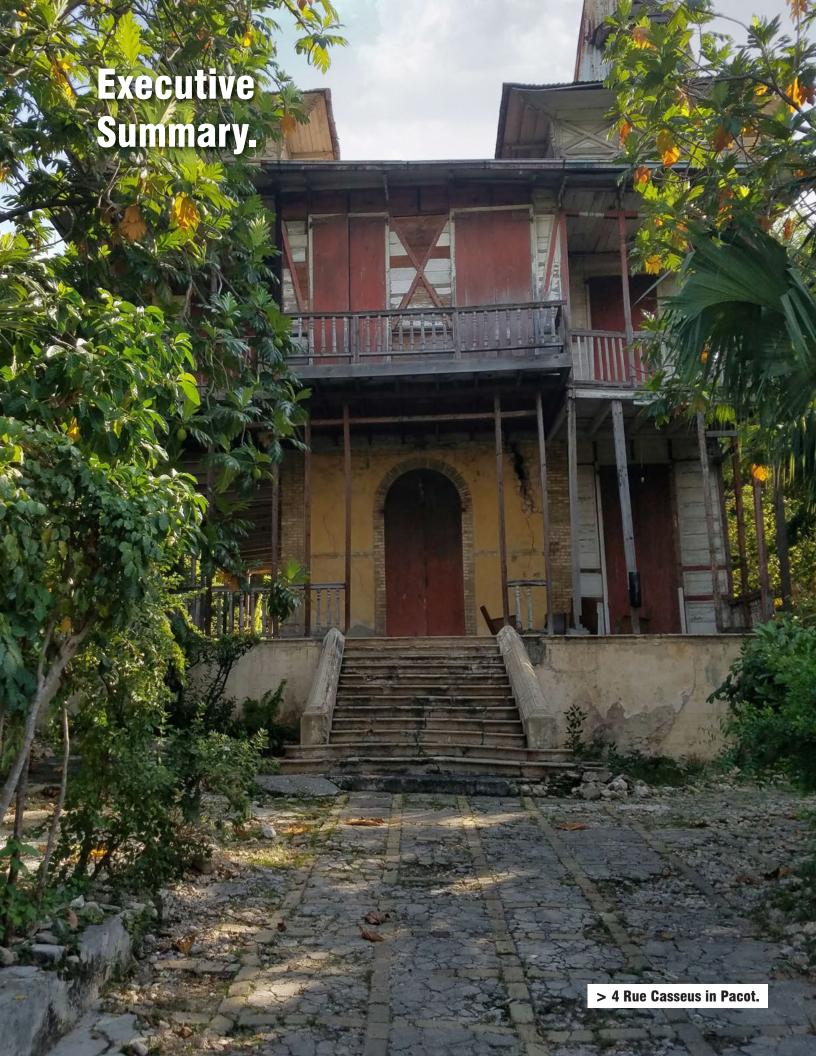
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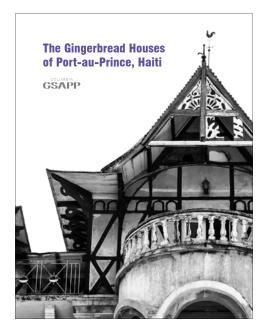
Studio Aims and Scope.

After the devastating earthquake of January 12, 2010, an historic area of Port-au-Prince suffered notably less damage than many other parts of the city, and its older structures, known as Gingerbread houses, were not as prone to collapse as more recently constructed architecture (especially reinforced concrete buildings). These late nineteenth- to early twentieth-century structures are icons of Haiti's rich past and serve as important elements of its urban form and functionality. The Gingerbreads serve a range of uses, and in Port-au-Prince, they are particularly concentrated in an area just over a square mile that varies in density, form, and fabric. Early assessments undertaken after the earthquake found that traditional construction techniques proved seismically-resistant, thereby preventing many Gingerbread structures from collapsing.

The Haitian governmental agency in charge of heritage, l'Institut de Sauvegarde du Patrimoine National (ISPAN), prioritized this historic area for international conservation assistance directly following the earthquake, due to the high significance of the Gingerbreads. However, such assistance has been extremely limited in the years since the earthquake, as the state endured five years of political paralysis under the administration of Michel Martelly (2011–2016).

Preservation of individual Gingerbreads has fallen to NGOs and other private entities. World Monuments Fund (WMF) included the Gingerbreads on their World Monuments Watch, an advocacy platform to raise awareness for heritage at risk, in both 2010 and 2012. However, the integrative function of the Gingerbread structures within the diverse urban environment and post-disaster context of Port-au-Prince has yet to be widely recognized.

In the Fall of 2015, a GSAPP advanced studio of Historic Preservation, Urban Planning, and Real Estate Development students undertook an assessment of the area, identifying over 350 surviving Gingerbreads, concentrated in approximately ten nodes (GSAPP 2016). A key finding of the assessment was the integral, yet varying, role the Gingerbreads play in the built and social fabric of each node. Approximately two-thirds are still in residential use. The remainder have been adaptively reused for commercial and institutional purposes, with the largest percentage devoted to educational and cultural use. From university facilities to primary schools to arts institutions, the larger scale Gingerbreads and their generally sizable lots are highly conducive to educational adaptation. The 2015 studio found that such facilities have the potential to serve as vital anchor institutions within discrete areas of the overall study area, which were characterized as "nodes" to be prioritized for future conservation interventions.





The 2015 GSAPP studio report, which initially surveyed Pacot.

However, despite their resilience and their cultural, economic, and environmental importance, over 400 Gingerbreads have been lost since the 1980s, more than fifty of which have been demolished or have fallen into ruin since the 2010 earthquake. There have been a number of factors contributing to this decline, including but not limited to the densification of Port-au-Prince in past decades, an increase in absentee property owners, decreased investment in maintenance, a lack of traditional building skills in the labor market, and limited availability of traditional construction materials, such as timber and lime.

Meanwhile, the area within and around the nodes recognized in 2015 has recovered faster than downtown Port-au-Prince, both because it suffered less damage from the earthquake overall and because it was less densely developed, offering opportunities to those looking to relocate from downtown. Land and property prices have been steadily rising in this area, and some Gingerbread owners, facing uncertainty in both the time frame and cost necessary to restore their property, have elected to sell. Redevelopment of these lots generally involves demolishing the Gingerbread and replacing it with a new construction. Overall, there is discontinuity between the value and potential of the Gingerbreads and the changes afoot within the built environment of this historic and persistently dynamic area of Port-au-Prince.

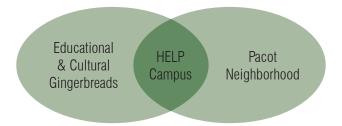
Building upon the 2015 assessment, this studio explored how Gingerbreads can serve an integrative and catalytic function in relation to urban form, creative placemaking, and community resilience. This inquiry approached the Gingerbreads from two perspectives. The first focused on the use of the Gingerbreads for educational and cultural purposes to understand the opportunities and challenges confronted by this particular institutional community, which is geographically dispersed. The second examined the Gingerbreads in a physical community by focusing on a particular neighborhood/node, Pacot, in which Gingerbreads are geographically concentrated and represent a significant element of the urban fabric. The studio worked closely with the following organizations that have plans in place to adapt Gingerbreads for educational and cultural use.

The Fondation connaissance et liberté/ Fondasyon Konesans Ak Libète (FOKAL) is an NGO dedicated to education and human rights, and to promoting the structures necessary for the creation of a democratic society characterized by individual self-determination and collective responsibility. They focus their efforts on the sectors of society where they see the most promise for change: children and young people, civil society organizations, and historically marginalized populations. FOKAL has identified Gingerbread heritage as an important cultural element of Haitian society and self-determination, and sees it as a way to advance their goals. They have previously restored the Maison Dufort (2012–2016) and are currently restoring the Maison Chenet for educational and cultural purposes. Their Gingerbread program seeks to address the challenges of individual Gingerbreads as structures, pursues lasting solutions for the reuse of Gingerbreads as education-cultural institutions, and aspires to activate geographic urban concentrations of Gingerbreads to better achieve their core mission.

The mission of the Haitian Education and Leadership Program (HELP) is to create, through merit and need-based scholarships, a community of young professionals and leaders who will promote a more just society in Haiti. HELP has purchased two unoccupied Gingerbreads and their surrounding property in Pacot, in order to develop a campus for its students, who attend various Port-au-Prince universities. In 2017 MASS Design Group developed a master plan for the campus, which retains the existing Gingerbreads and includes new facilities. Plans for the campus seek to combine the traditional knowledge and forms of the Gingerbreads with innovative technology and design, thereby—in the words of Michèle Duvivier Pierre-Louis, the former prime minister and now president of FOKAL—building "Haiti's future to the dimensions of its

past." The development of this new campus and its activation of the Gingerbreads represents an important opportunity for creative placemaking that can engage the community and strengthen urban resilience.

Working with these organizations provided an important point of connection between the studio's dual objects of study. The HELP campus will reuse Gingerbreads for an educational purpose. It is also located in Pacot on a road that serves as a primary pedestrian thoroughfare for students in and around the neighborhood as they travel to and from the many nearby schools. This allowed the studio to explore how the potential for action—at the neighborhood scale and through cultural-educational institutional missions—could be developed for broader ends.



This project-based studio sought to develop student skills in mapping, assessing, and integrating cultural heritage as an instrumental component of sustainable urbanization, community development, and social-spatial justice. Students worked collaboratively in their research, analysis, and proposal development, compiling findings in a collective final report. The studio included GSAPP students from Historic Preservation and Urban Planning, and engaged Haitian students enrolled in HELP from a range of disciplines.

An intensive field component was planned for the studio. However, due to a University-wide travel risk assessment, Columbia students were not permitted to travel to Port-au-Prince during the semester. Columbia faculty instead worked solely with HELP students to collect data in the field. Fieldwork included a survey of the Gingerbreads in Pacot, documentation of Pacot streetscapes, and visits and interviews at the Maison Dufort, the Maison Chenet, the International School of Dance of Viviane Gauthier and a number of other educational and cultural institutions identified during the 2015 survey that are housed within a Gingerbread or have incorporated a Gingerbread into their campus.

Meanwhile, the Columbia team traveled to alternate destinations to enrich their understanding of other facets of this problem. In Port of Spain, Trinidad, a group studied the possibilities of Gingerbread preservation in a more favorable economic climate. In Amsterdam, another group attended a conference on creative placemaking, seeking ideas that could be transferred to the Haitian context. In Willemstad, Curaçao, a third group attended a conference of representatives from Caribbean heritage organizations, seeking preservation solutions that had proven successful elsewhere in the region.

As the studio convened to imagine potential scenarios and specific proposals to strengthen the Gingerbread preservation efforts of HELP and FOKAL, as well as a broader pool of Gingerbreads used for educational and cultural purposes, these efforts were bolstered by two HELP students who traveled to New York to assist in refining these ideas. The results described in this report are intended to assist all parties working to leverage educational and cultural Gingerbreads toward increased social engagement and inclusion, neighborhood accessibility (physical and visual), community resilience, creative placemaking, and investment.

Key Findings and Recommendations.

The purpose of this studio was to examine the task of preserving Gingerbread architecture in Port-au-Prince, not for safekeeping, but rather as tool for social good. Given the challenges that the city currently confronts, heritage conservation projects need to be more than a curatorial mechanism of community planning. Preservation and planning practice in such a context must adopt more catalytic strategies. The identification of relationships at work within the urban contexts of these Gingerbreads, and an assessment of the needs and desires of these relationships has been primary.

Continue to build solidarity among educational institutions and surrounding communities

The lens of community resilience has encouraged this studio to examine the strength of these relationships as a function of social solidarity, highlighting Gingerbread heritage as a common undertaking with the potential to be more constructively shared. Institutions like HELP and FOKAL should continue to structure Gingerbread restoration projects in a way that supports their core mission(s) while welcoming their neighbors.

Foster communal solutions to common problems

While previous efforts to engage the full spectrum of Gingerbread owners in an active network to preserve Gingerbread heritage have faltered, educational and cultural institutions in Gingerbreads have much in common and much to gain through greater communication. Activating this group is likely to yield solutions to mutual problems.

Build and engage links with the broader Caribbean heritage community

This community extends outward to the broader Caribbean region, whose efforts to share resources and common experiences were demonstrated during trips to Curacao and Trinidad. Continued and expanded participation of Haitian organizations as actors in new initiatives such as those of the Caribbean Heritage Network can help build capacity in solidarity with other island nations who may be facing similar or complementary challenges. It is important to remember that Haiti also has much to offer others.

Access agency through creative engagement with urban form

The lens of creative placemaking has lent agency to collective interventions in the physical form and programmatic use of the urban environment in which these Gingerbreads participate. While a placemaking project may only require modest resources to pull off, it can transform the relationship between participants and their surroundings.

Sustain and integrate diverse commitments to place

The connections between heritage conservation and urban planning are equally if not more relevant to a context like Haiti's where access to resources is premised upon the creativity of local urban relationships.

Toward these ends, this study develops several proposals for action centered around:

- Building a network of educational and cultural institutions housed in Gingerbreads and incentivizing their collective agency through a paint fund, a maintenance and stabilization revolving loan fund, a Gingerbread materials bank, and financing for creative placemaking.
- Enhancing the streetscape experience by redesigning walls, enhancing street lighting, and instituting community mural painting initiatives.
- Celebrating Haitian and Gingerbread heritage through cultural festivals and Gingerbread tours.





Introduction and Background.

Historical and Political Context.

The Haitian context is characterized by isolation and persistence, by contradictory dimensions of pride and profound sorrow. Most narratives of Haitian history remain largely obscured from the rest of the world, and its capital city of Port-au-Prince appears increasingly inaccessible to foreign visitation outside of international aid. Port-au-Prince bears witness to an ongoing legacy of political instability, infrastructural deficits, and fraught international relations with which Haiti continues to struggle.

Haiti's condition is often lamented through statistics of vulnerability. Its location in the Caribbean's hurricane warpath has in the past 30 years subjected the island nation to a barrage of flood events, even preceding the massive earthquake of 2010 that killed over 250,000. Geographic factors are made infinitely more precarious than other closely located islands by an extreme dearth of political, infrastructural, and ecological stability, having endured unending campaigns of unsympathetic economic pillage since the day of European arrival on its shores. The island nation is effectively deforested and without broadly effective structures of planning or governance. Its population continues to grow rapidly, and urban migration continues unabated despite the city's spatial incapacity to contain and care for its residents. Individual success in Port-au-Prince hinges primarily on access to education, a system which is largely privatized and often only serves to provide educated Haitians with a platform to emigrate.

Haitian independence in 1804 marked a rupture in the colonial era, over a century and a half before the economic system's eventual global demise. Haiti became the first independent black republic in the Western Hemisphere, and the second colonial territory after the United States to gain independence through rebellion. The Haitian revolution, however, was waged not just for territorial sovereignty, but for human liberty. The victory of the Haitian revolution, achieved by an enslaved people over the three largest Colonial armies of that era—not merely the French, but the Spanish and British armies as well—defied all established order. The symbolic potency of this event cannot be overstated.

The triumphal legacy of the Haitian revolution today, however, is muted by its appropriations. While French colonial rule may have been ousted, powerful foreign interest and intervention in the island nation have never waned. The Western world suppressed news of Haitian independence for fear of complete colonial economic implosion. The United States refused to recognize the republic of Haiti until the outbreak of its Civil War, and the French maintained a \$90 million debt against Haiti for reparations until 1947. In the era leading up to World War I, the U.S. Marines occupied Haiti under the orders of President Woodrow Wilson, seizing control of the National Bank and maintaining influence well into the second half of the twentieth century. As demonstrated in countless other Latin American contexts during this era, foreign intervention has often proved to exacerbate a nation's ability to reassert a political culture of independent control.

In tandem with rapid urban expansion in the last quarter of the twentieth century, Haiti was plagued by a political culture of violent repression through successive regimes of father-son Duvalier dictatorships. Between 1957 and 1986 Haiti was ruled by Francois Duvalier or "Papa Doc" and then by his son, Jean-Claude "Baby Doc," whose militant regimes of fear and an abusive neglect of the country would fundamentally shape this crucial era of rapid urban expansion.

Social distrust and rigidly protected class boundaries became especially visible in the 1980s by the well-publicized antics of Baby Doc and his wife, Michèle Bennett, jet setting around the world on lavish vacations and shopping sprees while Haitian rates of poverty were hitting record highs (The Telegraph 2014).

While their regime ended with Baby Doc's exile, the social and infrastructural scars from the violence of this era persist through rigid social divisions and ongoing concerns for urban safety. The departure of dictatorial control left a power vacuum throughout the country and urban residents were more exposed to crime in the absence of a reliable police presence.

Port-au-Prince today is a city constructed from insecurity and statelessness. Defined by the basic irony of a national capital without a palpable force of governance—"where people feel they ought to be well within the reach of the state and yet feel excluded or left out"—statelessness is embedded spatially into the cityscape through primarily informal patterns of socio-political and economic exchange, as well as in radical disparities of access to many fundamental services such as sanitation and electricity (Beckett 2014, 32).

Mirroring other postcolonial trajectories from colonial port to the rise of informal urban slums, the development of Port-au-Prince has been framed by ruthlessly hierarchical economies of extraction between urban center and rural periphery, made possible by strict systems of social stratification that were further enforced by spatial segregations.

In Haiti, urbanites have historically defined themselves in relation to two other groups: the Europeans with whom they identified and the *moun andeyo*—the "outside people"—who live in the countryside. The categorical distinction between *moun lavil*—"city people"—and moun andeyo uses the geographic separation of the city and the countryside to express a social separation, one that is also heavily inflected with ideas of class, color, and personhood (Beckett 2014, 39).

The expansion of global capitalism throughout the twentieth century witnessed dramatic urban migrations within many postcolonial urban contexts in the Global South, in which waves of informal, self-built settlements could be neither constrained or abated (Florida 2014). Previously cardinal relationships of urban economic dependency upon a productive rural periphery have been undermined by the ease of international exchange, to the effect of encouraging many young adults and family units to seek greater access to the global economy in the urban core. For many in Port-au-Prince, this decision was one of very few opportunities to generate basic, viable income in Haiti.

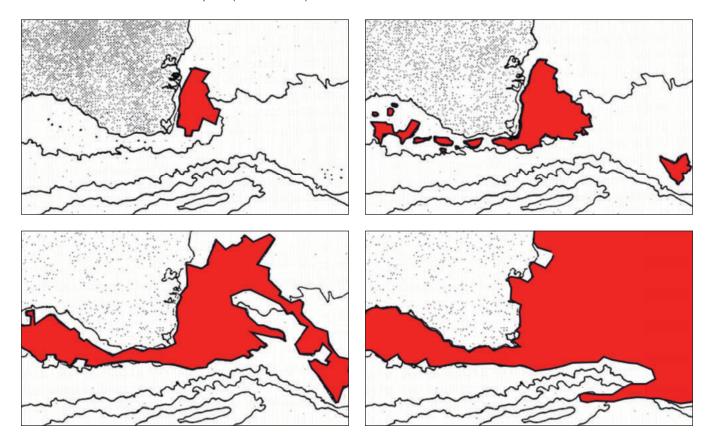
Beyond this re-spatialized clash of social groups, Haiti's volatile political history has necessitated extraordinary amounts of international intervention, where by "a parallel, autonomous network of nongovernmental organizations...have effectively taken over the task of governing the daily lives of poor urban residents" (Beckett 2014, 50). In the absence of an effective governmental presence in organizing life in Port-au-Prince throughout most of Haiti's history, a plethora of localized and multilateral organizations have stepped in to fill the needs of governance on an ad-hoc basis. NGOs, informal micro-economies, small corporate operations, private academies, gang-controlled territorial violence, and others have inserted themselves into disparate infrastructural vacancies, while no central authority remains accountable to the average urban dweller. Basic services, which might be provided by a government in other contexts, are instead provided by a plurality of disconnected and unregulated nodes in Port-au-Prince (Beckett 2014, 50).

Urban Development and Policy.

Port-au-Prince's development over time is a reflection of its colonial past, international political isolation, and high concentration of foreign humanitarian organizations and monetary aid. From the early history of colonialism in the Caribbean, the French colonists never intended St. Domingue (Haiti's colonial-era name) to be a settlement, and merely saw it as a means for generating revenue. Therefore, before Haitian independence in 1804, there was inadequate infrastructure put in place by the French to support large populations or a strong physical presence to serve as a political center. Even after independence, Port-au-Prince struggled to develop necessary and typical capital city features until the American occupation in 1915 with their oversight of the completion of the National Palace, rail service, and avenues for car traffic (Etienne 2013).

After the American occupation ceased in 1934, the urban development of Port-au-Prince quickly expanded in growth and densification marking a period of urban decay and slum proliferation through the 1950s and 1960s. Much of the city's open spaces were taken over by informal housing with a strong relationship between altitude along the foothills surrounding central Port-au-Prince and social hierarchy, where wealthy people located themselves higher on the slopes and further away from the dense urban core (GSAPP 2016). By the 1980s, with the increase in densification in Port-au-Prince, the city population approached one million inhabitants. Following the exile of Jean Claude Duvalier in 1986, the central government no longer exerted control over internal migration, and many moved from the countryside to Port-au-Prince. Much of the city's recent growth came at a time when the state was particularly weak, leading to the proliferation of informal settlements. While the city became denser, the perceived lack of security and public safety has also created isolating urban forms that discourage shared public space (Etienne 2013).

Urban growth of Port-au-Prince from 1891, 1950, 1976, and 2013.



The current planning framework in Haiti places land use and development responsibility under the purview of the Directorate des Planification et Affairs Externe (DPE), however there are seven other ministries of government units involved in planning in some way or another. For Portau-Prince, more than 50 government entities manage land or planning, and assessing how comprehensive each entity's engagement is proves to be difficult for both insiders and outsiders (Etienne 2013). Although sophisticated planning laws have been manifested in codes since 1937, regulatory instruments were failing by the end of the 1980s, and after the 2010 earthquake, they were all but forgotten (Guignard, *pers. comm.* 2017). Similarly, while cultural patrimony laws and agencies protect the major monuments of Haiti, the preservation of urban heritage, like the Gingerbreads, has not been codified in policy. In decision-making about all aspects of the Port-au-Prince built environment, the public sector lacks resources to devise and implement regulation, and property owners are not well-aware of their rights and duties.

In a post-earthquake environment, recovery through land use planning has been compounded by historically opaque property ownership and transfer structures, and by a volatile real estate market. Land tenure and property rights throughout Haiti pose significant challenges, largely due to the lack of a national comprehensive system of land survey and ownership documentation, or cadastre. Access to capital for real estate purchases, construction, and building improvements is limited in Haiti, as private mortgages are difficult to attain. The ability of the Direction Generale des Impots (DGI), the federal tax authority, to collect property tax has been strengthened in recent years, and new efforts are afoot to reform the tax system (Schulman 2017), which may result in an environment in which certain preservation and planning practices can be incentivized through a scheme of tax breaks. After the earthquake, real estate prices in Port-au-Prince skyrocketed due to a decreased supply and an influx of money from aid organizations, influencing rents and the capacity to re-house displaced populations.

In light of these challenges and the desire to reconstruct swiftly, the international community intervened. The World Bank recommended a commission to regulate foreign aid flowing into Haiti for post-earthquake recovery efforts. Established by then Prime Minister Bellerive and former U.S. President Bill Clinton, the Interim Haitian Reconstruction Commission (IHRC) vetted aid from foreign governments with a board comprised of Haitian and foreign diplomats and leaders. Unfortunately, only \$2 billion of the \$9 billion promised to Haiti by foreign governments was received, and NGOs participating in the reconstruction process often opted to bypass the commission (Etienne 2013). The United Nations established a cluster system for the large influx of international NGOs associated with disaster relief. This type of system is typical in disaster relief situations, where organizations are assigned responsibility for specific sectors like water. sanitation, education, etc. (Marini 2012). The focus has primarily been connected to housing and planning involved in internally displaced persons (IDPs) and temporarily transitional housing in the post-earthquake reconstruction efforts, which should not be seen separately from development (Etienne 2013). While spending after the earthquake constituted the largest single influx of foreign capital in Haiti in at least 50 years and stimulated employment, the disasterrelief environment produced competition between the government and NGOs over resources and human capital (Marini 2012).

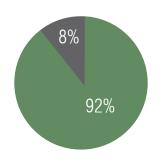
Throughout history, the foreign oversight of development in Port-au-Prince has accompanied local political instability and international isolation. Recent oversight of disaster relief through international organizations bypassed Haitian regulation and furthered international economic and political agendas through disaster relief. As a result, less reliance on external agents and more focus on locally determined change are needed for successful urban planning (Marini 2012).

Education as an Agent of Change.





Gingerbreads have a long history of educational use. Many schools in Gingerbreads were captured in the 1980 photo inventory.



Only eight percent of schools in Haiti are public; the overwhelming majority are private.

The educational context in Haiti is both a microcosm of the nation's wider challenges and a primary driver for their persistence. Haiti's schools rank among the most privately funded and organized in the world. Legacies of social, economic, and racialized elitism, and political violence have provided deeply entrenched social rationales for the privatization of the educational sector, which has nevertheless developed out of necessity in the context of basic infrastructural and institutional impotency. The World Bank cites a 2002–03 education census that tallied only eight percent of Haitian schools to be public, while "approximately 92 percent were privately owned and financed, meaning they were tuition-based in most cases" (Luzincourt and Gulbrandson 2010, 2). Extreme, widespread poverty in this context means that most educational opportunities are entirely inaccessible to the vast majority of youth and families. The same census data indicated that "only 55 percent of children aged six to twelve were enrolled in school, and less than one-third of those enrolled reached the fifth grade" (Luzincourt and Gulbrandson 2010, 2). Adding to this, a basic poverty of resources throughout the country means that schools are constantly in need of qualified teachers as well as teaching materials like books, desks, and access to technology.

Language of instruction also exists as a factor of exclusion. While Creole is the primary language spoken throughout Haiti, French remains in use among higher social classes and furthermore controls access to the official realms of writing and administration. Full citizenship and economic participation therefore requires proficiency in French, yet current practices of educational instruction in French also means that many Haitian youths are linguistically one step removed from fully apprehending and making use of scholastic content.

Patterns of elitism, already deeply embedded into the educational opportunities for Haitian youth, continued during the Duvalier regimes, as noiriste campaigns to subvert mulato hierarchies set in place by the French fell into the trap of merely exchanging one type of exclusion for another (Luzincourt and Gulbrandson 2010, 8). Manifesting in large-scale promotion of education for Haiti's largely lower class, darker-skinned majority, the noirisme movement "emphasized an appreciation for and embracing of African culture and a rejection of European values...with Creole as the principal language medium and voodoo the spiritual practice" (Luzincourt and

Gulbrandson 2010, 8). This era nevertheless failed to make educational opportunities truly public. While "students from the lower economic strata, children of blue-collar workers or farmers, gained access to the prestigious disciplines of law, medicine, and engineering in large numbers for the first time," many newly excluded members of the lighter-skinned elite left the country to gain education elsewhere or were exiled for political reasons (Luzincourt and Gulbrandson 2010, 8). The effect of this has been to pave the way for what has been called Haiti's "brain drain," whereby well-educated Haitians choose to live internationally, re-investing their skills into already better-served contexts outside of Haiti. Only one percent of Haitians attend university, and 84 percent of Haitians who have earned a university degree in the last 50 years now live outside of Haiti (HELP).

It is within this context that education-oriented NGOs seek to champion not only access to schooling, but also a path toward renewed conceptions of citizenship and strategies for improved civic engagement and social justice. Two such organizations served as collaborators in this studio: FOKAL and HELP.

"Can you describe what progress has been made in rebuilding Port-au-Prince since the earthquake, and how the park fits into that progress?

I don't think it would be fair to say that nothing has been done, but after the earthquake, 60 to 70 percent of [the relief and recovery] funds went to humanitarian causes. Very little went into public construction. And in Haiti there's a problem with lack of access to credit, which makes it hard for individuals to rebuild.

This means that the middle class was probably the sector that was hurt the most by the earthquake. Those people had built their houses with their own savings—it took them 25 years to build them, and they collapsed in 36 seconds. When we started on Martissant Park, the idea was to see if a project like this could be a good model for the rebuilding of Port-au-Prince. Because construction takes time."

— Michèle Pierre-Louis, president of FOKAL and Haiti's former prime minister, interview for Open Society Foundations, January 12, 2015.

FOKAL

The Fondation connaissance et liberté/Fondasyon Konesans Ak Libète (FOKAL) is a Haitian foundation established in 1995 that offers local communities and organizations opportunities to foster culture and creativity as drivers of democracy. Priority areas include: increasing public access to information, reconstructing the urban environment, and youth arts education, in addition to memory initiatives, human rights issues and sustainable development. FOKAL has established 25 community libraries that provide youth from poor communities with access to information and technology. Its primary cultural centers are located at the Katherine Dunham Center within Martissant Park and FOKAL's headquarters in the Gingerbread neighborhood.

FOKAL supports itself through diverse funding strategies, and has built a reputation for strong organizational capacity and clear ethical goals. They are a member of Open Society Foundations, a network created by philanthropist George Soros to help countries make the complicated transition toward democracy by prioritizing justice, education, public health infrastructure, and freedom of information. While leveraging these international ties, through their leadership and programs FOKAL spearheads independent initiatives and maintains a uniquely Haitian voice. Set amidst Haiti's disaggregated infrastructural and political context, FOKAL's mission is premised

upon cultivating Haitian cultural capacities to navigate their uniquely intricate socio-political environment, as non-native solutions have repeatedly proven to be indispensable, yet also fundamentally inadequate.

FOKAL builds upon Haiti's heritage as the site of the first successful, large-scale slave rebellion as well as the first independent Black republic. The nation's long history of independence, Afro-Caribbean creativity, and enduring commitment to seeking out positive solutions to protracted obstacles are framed as essential cultural resources moving forward. Gingerbread architecture is integrated into FOKAL's efforts to encourage engagement with Haitian heritage and culture as a catalyst for social change, and also features as an important dimension of FOKAL's training program for restoration artisans. As part of their efforts to educate a local cadre of tradeseople in traditional building and restoration techniques, FOKAL purchased two Gingerbread houses, the Maisons Dufort and Chenet, which served as didactic projects for training. An ancillary aim was to create models of heritage conservation and valorization through the revitalization of these structures for cultural and educational purposes.





Maison Dufort in 2015 (left), during FOKAL's first Gingerbread restoration project. Maison Chenet (right) undergoing restoration in 2017.

HELP

Haitian Education and Leadership Program (HELP) is a Port-au-Prince based NGO founded by Conor Bohan in 1996. HELP selects high achieving, under-privileged students from throughout Haiti and provides them with university scholarships as well as an array of other services, including housing, advising, and supplemental classes in English, citizenship and leadership, and computer literacy. In doing so, HELP seeks to fulfill its mission of providing opportunity for deserving students, breaking the cycle of poverty, building a professional class and economy, and forging a more just society. In Haiti, where unemployment is 50 percent, 95 percent of HELP graduates are employed, and 85 percent remain in Haiti, instilled with a fundamental commitment to give back and improve conditions for all.

HELP currently has a staff of 30 and provides services to 172 students. It aims to grow to 250 students and 40 employees. To accommodate this expansion and provide a permanent home to the organization, which is currently housed in rented facilities in Pacot, HELP recently purchased a property containing two Gingerbread houses. Plans are currently underway to develop the site, reusing the existing Gingerbreads and creating new facilities to accommodate administrative and classroom spaces.

"I'm particularly impressed by the HELP model in part because of the nifty way to make the program sustainable: [Scholarship] Winners commit to giving back 15 percent of their incomes for their first nine years in their jobs. That's a hefty sum: HELP graduates earn an average of \$15,000 a year, compared with per capita income in Haiti of a bit more than \$800, and university tuition is very cheap by American standards."

— Nicholas Kristoff, *The New York Times*, December 20, 2014.







The HELP student field team surveyed Pacot Gingerbreads and cultural and educational institutions throughout the study area.

The Catalytic Potential of Heritage.

Both FOKAL and HELP recognize the Gingerbreads for their symbolic and functional role in promoting education and social justice, and in preserving memory. Haitian resilience prevails in spaces and moments of unique traditional cultural persistence. In the wake of their revolution, Haiti supported Símon Bolívar in the wars that would liberate much of the South American continent from Spanish rule. The period of commercial prosperity in the latter half of the nineteenth-century that ornamented the country with its iconic Gingerbread architecture still attests to the richness of Haitian pride and creativity, which remain its greatest resources. Writers and artists the world over have been influenced profoundly by the Haitian imagination, and the international wealth of black cultural productions continue to locate strength and inspiration in Haiti's story. Indeed the island nation has undergone extraordinary losses, both human and material, and many such trials have worsened in recent years. In Vodou practice, all losses must be mourned and celebrated. In Haiti, the dead are not lost, but endure in spaces, objects, beings, and architectures. The Gingerbreads are invaluable as the material embodiment of Haitian survival.

"...Saving the Gingerbread Houses in Port-au-Prince would represent the conservation of a powerful and unique symbol of urban planning and architecture... Recently Haiti has gone through political upheaval, periods of violence and natural disasters that have had devastating effects on every aspect of the country's historical, cultural and natural heritage. The Gingerbread Houses have not been immune to this overall deterioration. But paradoxically, the situation has at least given us the opportunity to speak out and show once again our unique creativity. In this sense, culture in general remains a factor for social integration, in that it is a uniting force, situating us in terms of our history, our collective memory and the present time. In return, memory and history nourish culture in its infinite variety of expression and show the way forward into the future. Making this cultural wealth the subject of research, creation and education can be hugely beneficial in recreating Haiti's social fabric. In a country whose developing citizenship is looking for roots, culture can help transform our relationship with ourselves, with others and with our surroundings."

 Michèle Pierre-Louis, president of FOKAL and former prime minister of Haiti, "Restoration and Social Value of the Historic Gingerbread Houses," Museum International.

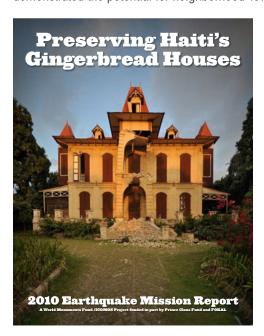
In the immediate aftermath of the earthquake, the international preservation community came together to help Haiti rebuild and protect its historic architecture. World Monuments Fund (WMF) and the International Council of Monuments and Sites (ICOMOS) joined multiple agencies and institutions working with Gingerbreads in the immediate aftermath of the earthquake. The results of their work, along with the work done by the 2015 Columbia studio, formed the basis of the data with which this studio worked.

WMF and ICOMOS, with support from the Prince Claus Fund and the collaboration of FOKAL and other local counterparts, undertook a condition assessment of 200 Gingerbreads in April 2010. The data gathered by the organizations served subsequent efforts to preserve the Gingerbreads. In 2012, Quartiers pour Haiti (a Belgian organization), FOKAL, ISPAN, and the Comité Interministériel d'Aménagement du Territoire (CIAT) developed a proposal for revitalization of the neighborhood around Maison Dufort, creating a zone of 48 Gingerbreads. The subset of Gingerbreads received a more in-depth assessment and an urban design plan sought to forge stronger links between the

houses and the surrounding community through the restructuring of roads and the development of a pedestrian park. None of these recommendations has been realized but the report has led to a better understanding of the influence the Gingerbreads have on the community.

In September 2012, FOKAL established a conservation workshop-school at the Maison Dufort, purchased by the organization with the intent of developing a model restoration project cum resource for Gingerbread property owners. The initiative brought technical experts and master craftsmen with experience in conservation from the Institut du Patrimoine Wallon (IPW) in Belgium to work with a team of local Haitians. Restoration of the Maison Dufort was completed in 2016, and the team is now working on another Gingerbread project, Maison Chenet, which FOKAL also purchased. This group of artisans and tradespeople, referred to as the Chenet team, is now seeking to market its skills for additional projects sand establish themselves as an independent business.

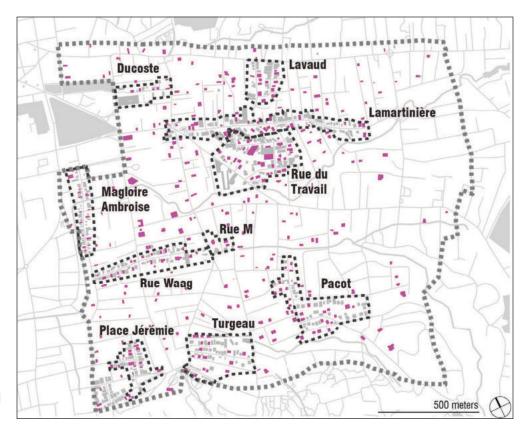
In 2015, a GSAPP studio revisited the post-earthquake assessment and undertook a more indepth inventory of Gingerbreads in Port-au-Prince, geo-locating more than 350 houses and documenting their scale, use, condition, and more. Capitalizing on the concepts promoted by Quartiers pour Haiti, the studio team identified ten urban clusters or nodes of Gingerbreads that demonstrated the potential for neighborhood-level action.





The World Monuments Fund 2010 Mission Report (left) and the Maison Dufort restoration report are important publications bringing attention to the Gingerbreads.

There is a strong case to be made for the potential role of Gingerbread heritage in fostering neighborhood-level community resilience and creative placemaking in Port-au-Prince. Haiti's development history and current situation presents the opportunity for Haitian reclamation of power in planning and managing the built environment. The strong narrative of international organizations leading the efforts for earthquake recovery can be overturned through time in an effort to create a more socially, physically, and economically resilient system. The importance of informal, locally-scaled efforts for social cohesion within the built environment fits into the larger narrative for future planning sustainability and ability for systemic shock absorption. Contributing to this resilience is the opportunity for creative placemaking to incorporate art and design into community-organized planning and development with the goals of strengthening ties between community organizations, increasing community attachment, improving quality of life, and invigorating local economies. Creating a flexible system that allows community-defined goals to be achieved through social cooperation and creative physical interventions can invigorate and strengthen non-traditional systems to act in place of absent large regulatory bodies.



Nodes of Gingerbreads identified in the 2015 report.

The location of Gingerbreads within the context of Port-au-Prince's urban form provides an anchor for potential initiatives to further resiliency and creative placemaking. In addition to their physical resilience in the construction and structural survival after the 2010 earthquake, their varied physical presence scattered throughout a diverse mixed-use community is an enormous asset. While most Gingerbreads are still used for residential purposes, many are adaptively reused as educational and cultural institutions that provide potential platforms for organizational relationships and furthering of arts and cultural education within important built representations of Haitian heritage.

"The earthquake was a horrible disaster, but also an opportunity to transform, to make a statement. And yet these houses, that have been neglected, forgotten, not very well preserved—they stood."

—Lorraine Mangones, FOKAL

Heritage in the Regional Context

While Gingerbreads are a significant part of Haiti's built heritage, similar expressions of this style, influenced by the nineteenth-century French Seaside style, can be found throughout the Caribbean, and are prevalent in Trinidad and Jamaica (Waldron 2006). The tall ceilings, covered porches, and large windows positioned to facilitate cross breezes were ideal adaptations to much of the region's tropical climate. While the proliferation of this style is an example of how different countries in the region developed shared adaptations to similar challenges, the individuality of Gingerbreads is a critical reminder that the islands of the Caribbean vary tremendously in history, character, resources, architecture, customs, and language, particularly considering their distinct colonial histories and current trajectories. Research done by the heritage consulting group, Coherit Associates, confirms that these differences are also manifested in the protection of, engagement with, and legislation surrounding built heritage (Coherit Associates LLC 2013).

Despite this variety, or perhaps because of it, there has been a push over the past 40 years for Caribbean countries to move toward regional integration in order to strengthen governance and better leverage international power (Williams 2014). Examples of this integration includes regional associations like the Caribbean Community (CARICOM), the Organization of American States, and projects like UNESCO's Caribbean Heritage Action Plan. Regionalization efforts must grapple with the intense disparity in resources of Caribbean nations, the various and complicated relationships of islands with former colonizers, and the previously described cultural differences (Dookeran 2015).

One example of Caribbean regional capacity building in the heritage sector is the Caribbean Heritage Network (CHN). Embedded at the University of the West Indies, the CHN was created as part of the Organization of American States' project "Expanding the Socio-economic Potential of Cultural Heritage in the Caribbean" (Inniss 2017). The first phase of the project was a survey of organizations involved in cultural heritage in various Caribbean countries, including Haiti, to determine the needs of the region. The results of this survey revealed disparate forms of heritage legislation and uneven capacities throughout the region (Coherit Associates LLC 2013). Inspired by the results of the survey, the CHN was developed to facilitate the sharing of knowledge and skills between Caribbean nations, and has established five interest groups:

- · Heritage education and professional development
- Heritage legislation and fiscal incentives
- Inventories and monitoring
- Socio-economic impacts of heritage
- · Sustainable heritage tourism

Although Haiti is nominally an observing member of the CHN, the director of ISPAN, Henry Jolibois, is one of the network's Advisory Board members, and Haiti has been actively involved through the OAS since the network's creation (Inniss 2017).

At a more localized scale, much can be learned from other Caribbean experiences. In Trinidad, Citizens for Conservation (CfC) is a coalition of professionals and advocates with an earnest concern for protecting cultural and natural heritage. Started as

an informal group in 1979, the organization became an official entity in 1985 when it coalesced public opposition to the intended demolition of a treasured Gingerbread, the George Brown Blue and White House. Since then, the CfC has been actively working to promote awareness and civic engagement around the heritage of Trinidad and Tobago, including most prominently the Gingerbreads. The organization lends support to the National Trust of the country, which it helped to form, by providing technical assistance to owners seeking to preserve their historic properties. It acts as a resource hub, connecting interested parties to supply chains for renovation materials. Most importantly, the CfC is a unified voice for heritage conservation, enabling them to leverage action, including the implementation of regulatory legislation at a national level. They are currently lobbying to implement tax-based incentives for heritage conservation (Roberts, *pers. comm.* 2017).





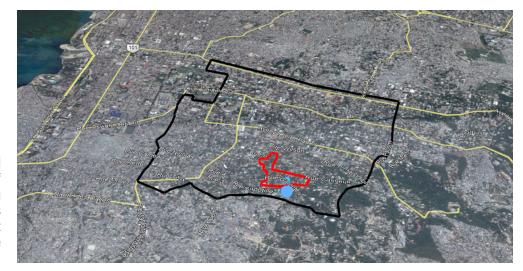
(Top) The George Brown Blue and White House in Trinidad. (Bottom) Other Gingerbreads in Trinidad could benefit from future restoration.



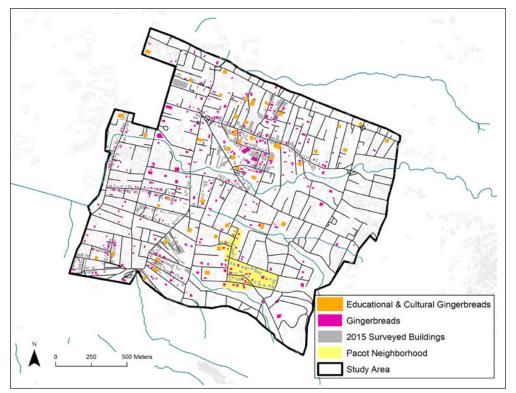
Methodology.

Lenses and Objects of Study.

Using the 2015 GSAPP studio findings as a launch pad, this studio explored how Gingerbreads can serve an integrative and catalytic function in relation to urban form, creative placemaking, and community resilience. As noted previously, this inquiry approached the Gingerbreads from two perspectives or objects of study. The first focused on the use of the Gingerbreads for educational and cultural purposes. The second examined the neighborhood/node of Pacot, where a concentration of Gingerbreads is found. The former is a community defined not by geography, but by common mission and the shared challenges and opportunities of adaptively reusing a Gingerbread as part of their physical infrastructure and programming. The latter is a Gingerbread-rich community defined by geography and the social-spatial relationships created by its urban form. These converge in the new HELP campus in Pacot, which provides an important experimental model for exploring how the adaptive use of Gingerbread heritage might promote positive change at a neighborhood scale.



The 2015 study area (outlined in black) within the context of Port-au-Prince, viewed facing north. The Pacot node is shown in red, and the blue dot indicates the location of the future HELP campus.



The study area has a rich collection of educational and cultural use (in orange) and Pacot has a concentration of Gingerbreads (in pink).

More traditional preservation approaches might look to the conservation of original form and materiality as a priority. However, by contextualizing the Gingerbreads as potential "actors" in the social and physical fabric of the city, this studio takes a broad view of how this heritage might be instrumentalized toward greater community and environmental benefit. The societal values of the Gingerbreads extend beyond simply ensuring their survival in the landscape. The urban conditions within Port-au-Prince compel innovative courses of action that embrace how those societal values might be spatialized and leveraged to improve quality of life.

Toward this end, the studio did not take on the question of how to preserve the Gingerbreads as historic structures, per se. Rather, students were challenged to explore how the values associated with the Gingerbreads could foster creative placemaking and community resilience. Heritage thus is viewed as a process or vehicle through which to achieve broader societal and environmental goals, from community engagement and social cohesion to improved urban form and neighborhood stewardship. Creative placemaking and community resilience served as the primary lenses of inquiry that informed comparative case analyses, the exploration of financing mechanisms and incentives, and the development of proposals to strategically leverage institutional agency.

Because of the fundamental lack of governance structures in Haiti regarding the management of the built environment writ large, and the limited resources of the team's nonprofit collaborators, the studio could not rely solely on the normative tools of land use planning and preservation, which center around regulation and incentives. These circumstances necessitated the exploration of broader preservation and planning toolkits and of approaches that could be undertaken by third and/or private sector actors, particularly at a smaller scale in which agency might be mobilized.

Methods.

To accomplish this research, the studio undertook a multifaceted methodological approach that included the gathering of field data, which included structured and unstructured interviews, geospatial updates, as well as visual comparisons and comparative case studies.

In the field, the team conducted two field surveys related to the objects of study. The first survey was directed at educational and cultural institutions that own or occupy Gingerbreads and used establishing questions to elicit background information about the institution itself as well as the relationship between the institution, their Gingerbread, and the community in which both are located. Institutions were asked about how Gingerbreads are used (if at all), changes to their form and context, challenges with their maintenance, Gingerbread public accessibility, importance to the institution's programming, and if they have had any success with soliciting community support through use of their Gingerbread. The second survey sought to situate the Gingerbreads of the Pacot neighborhood in their urban form by collecting data on wall heights, sidewalk existence, lighting, and occupancy. All survey entries were collected using KoBo Toolbox, a digital platform that allowed the team to collect data in the field without the use of a constant internet connection.

In addition to the Kobo survey, in-person interviews with owners and operators of educational and cultural institutions in Gingerbreads provided key histories and stakeholder perspectives. Team members completed IRB-Human Subjects certification training prior to undertaking this research. The institutions were identified based on the 2015 GSAPP studio's survey work in the Pacot node as well as the larger neighborhood study area. Columbia faculty accompanied by eleven HELP students completed a total of 17 interviews. The interviews were structured to

expand further on the Kobo survey and provide generalized data while also eliciting stories about the meaning and significance of Gingerbreads to these owners.

Additional informational interviews were conducted with experts in the fields of heritage management and placemaking—in a Haitian context as well as a broader Caribbean context. These included Ginette Bausson, architect for the Viviane Gauthier Foundation; Rose-May Guignard, planner for Comité Interministériel d'Aménagement du Territoire; Tara Inniss, Director of the Caribbean Heritage Foundation; Lorraine Mangones, Executive Director of FOKAL; Michael Murphy and Adam Salzman, architects with MASS Design Group; and Rudylynn Roberts, President of Citizens for Conservation; and Anne Witsenburg, Director of Monumentsfund Aruba.



Interview with Ginette Bausson at the Maison Gauthier



Evins Honoré discusses the work at Maison Chenet.



Farah Hyppolite of FOKAL explained the restoration project at Maison Dufort

To complement this data, the HELP team in Haiti took a series of 67 spherical photos at and around surveyed Gingerbreads to provide important visual representations of their contexts and the streetscapes of Pacot. The team in Haiti also manually mapped the locations of sidewalks, street lighting, and wall heights in Pacot in order to give a more accurate, experiential representation of the streets in the neighborhood. A sketching activity was also conducted with six of the Haitian students in Pacot, which illustrated their typical routes through the neighborhood and provided insight into pedestrian patterns. Back in New York, the Columbia team sought to develop a longitudinal lens on the changes to the Gingerbreads and their contexts through comparative visual analyses between a 1980 photographic inventory and contemporary imagery.

In an effort to build a comprehensive image of the situation in Port-au-Prince and the breadth of resources and scenarios available to the stakeholders, the studio researched various case studies. These case studies represented different scopes and scales, from the very local Maison Dufort and Parc Martissant in Port-au-Prince, to larger scale financing options utilized in various projects globally. Gingerbread case studies were chosen based on their relevance to the Port-au-Prince situation and their potential application to Haiti, as well their representation of the studio's three lenses: community resilience, creative placemaking, and heritage preservation.

Finally, scenario planning analysis was conducted to develop the team's final proposals. Scenario planning is a key methodological tool in the Port-Au-Prince context. The city's political, economic, and environmental instability pose immense challenges to any public project and make long-term preservation planning difficult. While there is general consensus around the significance of Gingerbread architecture, the uncertainty in Haiti is not conducive to strategic planning. Instead, the team used scenario planning to examine the wide variety of possibilities for Gingerbreads in Port-Au-Prince.

As a form of analysis, scenario planning explores a range of possible outcomes, typically around single actors or projects to evaluate their options to create or respond to alternative futures. The studio employed this analysis by considering multiple possible actions that the didactic clients, HELP and FOKAL, could take on to support, interact with, or benefit from Gingerbreads in the Pacot neighborhood, and in the wider study area. Actions were evaluated based on their strengths and weaknesses in order to identify the scenarios that were the most viable and yielded the greatest possible positive outcomes for all stakeholders.

Research Challenges and Adaptations.

This studio's focus on the Gingerbreads of Pacot and the educational and cultural institutions derived from the previous studio's findings in 2015. High concentrations of common use, the Gingerbreads, and the existing presence of HELP and FOKAL provided a rich study area. The lenses of heritage, resilience, and community placemaking are choice ways to understand and frame the future of these buildings, but they are by no means the only lenses that can be used and are limitations in and of themselves. Practical challenges surfaced during the course of this studio when travel was precluded, necessitating flexible methodologies and adaptations to still achieve the goals of the research.

Research challenges were also present with the Gingerbreads themselves. Many of the Gingerbreads are behind high walls or set back behind various additions and even other buildings, making them hard to see from the street. The in-field team often had to search for many of the Gingerbreads, even when addresses were known. Additionally, there is no cadastral survey in Port-au-Prince. There have been surveys conducted by private groups before and after the earthquake locating and recording Gingerbreads, but no official, city-wide survey is available to the public. Together, these challenges make it difficult to determine if all of the Gingerbreads in the study area have been located and to analyze them over time. Issues of absentee owners prevented close survey of some Gingerbreads, and the lack of accessible ownership records can frustrate research efforts. In-person interviews with educational and cultural institutions were dependent upon the availability of staff during the short period of field survey.

The studio's work was also necessarily limited by the inability to travel to Port-au-Prince. While assistance from faculty members and a team of HELP students was critically helpful in collecting data in the field, it is important to acknowledge that an educational process accompanies data collection. The process of collection is itself a learning experience that contextualizes that data, an opportunity that was not able to directly inform this studio's work. That said, certain adaptations were taken to address this limitation. Spherical photographs and videos were captured in the field to provide visual context. Additionally, two HELP students were able to travel to New York to spend a few days with students and discuss the data collection process.



The Gingerbreads and Their Context. The Gingerbread Style.





Pages 36–38: Examples of Gingerbread architecture throughout the study area captured in 2015.

The Gingerbreads are important visual symbols of a uniquely Haitian architectural heritage and cultural resilience. Although this studio purposefully did not focus on the formal characteristics or the conservation issues of specific materials, a brief summary of this particular typology illustrates the architectural significance of these buildings.

In 1860, Port-au-Prince was the only port open for foreign exchange in Haiti. Hence, the city became a major center of trade and experienced economic and industrial growth. An emerging class of merchants, traders, and educated professionals established new, more elite residential enclaves on the slopes of the hills surrounding downtown Port-au-Prince. Turgeau, Bois Verna, Deprez, and Pacot became some of the more desirable neighborhoods, and the wealthy residents began to build new houses in the Gingerbread style. The second National Palace and Villa Sam (now the Hotel Oloffson) were constructed in the Gingerbread style, in 1881 and 1887 respectively, which inspired even more widespread popularity and adoption. The popularity of Gingerbreads extended through 1920 (GSAPP 2016).

The Gingerbread style emerged through a confluence of French influences and vernacular interpretations. Three young Haitian architects, Georges Baussan, Léon Mathon and Joseph-Eugène Maximilien, studied architecture in Paris in 1895 and are credited with the proliferation of the style:

"Georges Baussan, Léon Mathon and Joseph-Eugène Maximilien filled the void of Haitian architecture, designing homes which brought together the Haitian flair for elaborate patterns and bright color with the grandeur of French resort architecture, creating a true Haitian style of lattice-work houses" (2010 World Monuments Watch nomination, quoted in Avrami 2011).

The Gingerbreads are immediately recognizable by their distinctive decorative elements, which are hallmarks of the "Gingerbread" moniker. Other character-defining features derive particularly from the local adaptations to Haiti's heat and intense storms, including:

- Tall ceilings and roof ventilators to assist natural ventilation
- Steep roofs
- Galleries or wrap around porches which represent important intermediate spaces that provide shade and a space to congregate
- Tall operable doors and windows, with louvered wooden shutters, on all sides
- Large surrounding lots with natural greenery, which added to the beauty of this style of architecture, though this was mostly limited to larger Gingerbreads with wealthy owners, rather than later, more modest Gingerbreads.

Industrialization was one of the important factors in spreading the Gingerbread style in Haiti. Mass production of prefabricated ornamental elements lowered costs, and Gingerbread style houses proliferated even among the less wealthy. Construction of smaller and more compact Gingerbread houses for middle- and lower-income residents started spreading around Haiti (GSAPP 2016).









"The brightly painted fret work, ornate balustrades and the cut-outs adorning doors and windows are emblematic of the culture and time. The intricate patterns found throughout these houses are thought to be representative of the traditional 'vévé' patterns traced on the floor to call the spirits to a voudou ceremony. These houses, with their unique Haitian style and native architects are symbolic of Haiti's hard fought independence. While this architecture incorporates elements from abroad, it can truly claim to be indigenous, setting it apart from the mostly colonial architecture in the rest of the Caribbean" (2010 World Monuments Watch nomination, quoted in Avrami 2011).

The most commonly used materials for the construction of a traditional Gingerbread house are wood, clay, lime, brick, and stone. Advancements in technology and mass production introduced the use of concrete and steel. The clay, lime, stone, and some of the early wood was native to Haiti and in some instances can still be found on the island. However, these resources have either been depleted or replaced with other materials (like cement). Other species of wood were imported, and the iron and steel for structural materials were imported from Europe (Avrami 2011). Reinforced concrete appeared in Haitian construction at the turn of the twentieth century. In Gingerbreads, concrete blocks became a frequent structural component and Portland cement mortar often replaced clay or lime mortars. In 1925, wood construction was banned by the government because of fires in Port-au-Prince, increasing the popularity of concrete (GSAPP 2016). It was also considered a more modern, durable, and desirable material. Additions to Gingerbreads or repairs were commonly done in concrete, yet this widespread use was shown to be problematic when concrete elements fared poorly in the 2010 earthquake compared to the timber and stone and brick masonry (Avrami 2011). Construction codes did not call for seismic resistant systems, and were rarely followed, so many poorly built reinforced concrete structures failed during the earthquake.

The development of the Gingerbread neighborhoods corresponded to an exponential growth of Port-au-Prince's downtown and remain from a prosperous time in Haiti's history, and they have remained an important part of the urban fabric of the city. Their flexible designs, durability, and large lots have allowed many Gingerbreads to remain in residential use, but also for many to be converted to businesses, schools, and cultural institutions.





Case Study: Port of Spain, Trinidad:

Similar to Haiti, Trinidad is another Caribbean island known for the unique Gingerbread style of architecture. Trinidad, like Haiti was home to a multitude of cultures and influences. It was colonized by the Spanish, French, and British until 1962 (although Trinidad was self-governed in 1958). This worldly variety of developers is evident in the architecture itself. With the Cocoa Boom of the late 1800s, by the early 1900s land was being rapidly developed by the British.

Trinidad Gingerbreads have similar elements to those seen in Haiti but are at the same time perplexingly different. They share high, vaulted ceilings, fretwork, delicate eaves, verandas with pillars, and tall doors and windows. An observable difference is the height: Haiti sees larger two-story structures while Trinidad is home to primarily lower, one-story structures. Mainly timber in construction, the Trinidad Gingerbreads were created with efficiency and style in mind. Each piece of the Gingerbread puzzle has a purpose. The cable rod roofs, ten-foot doors, attic space, wrap around verandas, fretwork, and crawl space below all allow for cross wind ventilation that keeps the home cool and dry year round. However, this functionality is also representative of the people's character as well. Ms. Rudylynn De Four Roberts, from the Citizens for Conservation, stated that the "Gingerbreads have a joyous appearance," because citizens of Trinidad do not wish to have a house identical to their neighbors. Each is unique and was designed to reflect the homeowners sense of style. This is evident in the unique cast iron fretwork and accents of each structure.

These unique elements are being implemented in the new developments throughout Port of Spain as well. Fretwork, eaves with lace detailing, cable rod roofs, bright colors and other aspects of the Gingerbread vernacular can be seen on other contemporary and modern buildings. Most of the Gingerbreads in Trinidad are privately owned and operated. However, this does not mean that all are homes. Many offices and shops are located within Gingerbreads, exhibiting patterns of reuse similar to Haiti.



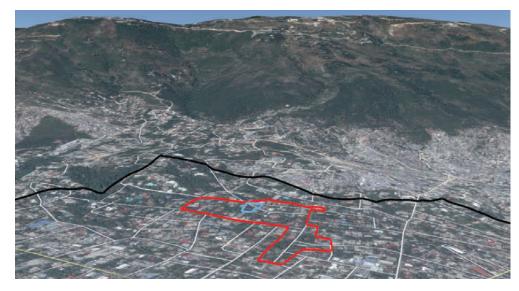


Similar to Haiti, the greatest negative influence on this unique architecture is the passage of time, as new structures are developed and it becomes cheaper to tear down an existing structure rather than maintain it. Trinidad is seeing a depletion of this unique architecture. When a private owner of a Gingerbread wishes to preserve and maintain his/her property, improper materials are being used to refurbish the structure. The skills and resources originally used in developing Gingerbreads are becoming difficult to find, akin to what is happening and has happened to Gingerbreads in Haiti. Ms. Roberts stated that when the original materials cannot be found, substitutes can be a challenge to identify, but she encourages Gingerbread owners to ascribe the appropriate effort in finding suitable surrogate materials. The increasing modernization of buildings is also impacting the historic Gingerbreads, however in Trinidad, new structures being developed do seem to hold strong to Gingerbread features and characteristics.

The Pacot Neighborhood.

As noted previously, this studio focused on one smaller neighborhood within the larger Gingerbread study area: Pacot. Pacot is located on the side of a mountain, south of downtown Port-au-Prince and north of the more dense and informal residential area known as Croix Deprez. In the context of the larger city, this neighborhood is characterized by lower density, elite residences on relatively large lots. Since the earthquake, many of the residences have been converted to institutional use, and the neighborhood contains a high concentration of educational institutions like HELP.

At the beginning and end of every school day, a significant amount of pedestrian and motor traffic passes through the streets as students and parents travel from neighborhoods above and below to schools in Pacot. Those living in Croix Deprez often pass through Pacot, largely on foot, when they need to engage with the city below. In this way, despite its residential and institutional character, Pacot serves as a major thoroughfare for many people every day.



The Pacot neighborhood is located on the slope of a mountain, viewed looking south from downtown Port-au-Prince. The study area is outlined in black, the Pacot node in red, and the future HELP campus in blue. Croix Deprez is shown at right

Pacot is also characterized by a higher concentration of Gingerbreads. During the 2015 studio, it was identified as a "node" of interest, and a priority area for future conservation projects because of the relative density of Gingerbreads. Using the 2015 survey along with 2017 Open Street Map data, the team calculated that the ratio of Gingerbreads to other structures in the overall study area is approximately 1:12, whereas in the sub-neighborhood of Pacot it is 1:3. This suggests how rare the Gingerbread properties are in the density of the surrounding city, as well as how relatively prevalent they are in Pacot. Historically, this Gingerbread architecture engendered social-spatial relationships that fostered community cohesion.

Ancillary to the concentration of large Gingerbreads, Pacot is characterized by larger lots and more greenery. Front gardens, in particular, were a valued aspect of the historic Port-au-Prince urban landscape that was incorporated into planning regulations. The Law of May 29, 1963, which is still in effect, established special rules relating to housing, development, and city planning. Article 14 includes a provision for residential properties on primary streets to be enclosed on the streetscape by low walls or hedges, and for a garden or yard of five meters from the back of the enclosure to the façade of the house, in which construction is not permitted (CIAT 2013, 15).

"These houses were...a way of life...You would entertain on the balcony, you would visit your friends, you would cross to your neighbors, you would talk to your neighbor through the window. It was very different; the city was very safe. People walked around everywhere; every neighbor knew each other. Very often neighbors—their children—would marry together, so a whole neighborhood became almost like a big family."

—Ginette Bausson, Viviane Gauthier Trust





The team surveying in Pacot. The abundance of greenery in comparison to other parts of the study area is readily apparent. The high walls, however, obscure the Gingerbreads and their lots.

The Gingerbreads of Pacot tend to be larger in size as well, two- to three-story, as historically this was a neighborhood of some wealth. It may be that the grandeur of these Gingerbreads has made them vulnerable to vacancy, possibly due to the cost of maintenance, as there is a higher concentration of unoccupied Gingerbreads in Pacot than in other parts of the study area. Two of these vacant Gingerbreads, 13 and 16 Rue Garoute, were purchased by HELP and will become part of their new campus.





22 Rue M. Casséus, 2015 and 2017, which appears to be unoccupied.





6 Rue Bellevue, occupied in 2015 but vacant in 2017.

The large structures and lots are conducive to adaptive reuse, particularly by institutions in need of more ample space and grounds. According to the 2015 survey, there are nine existing cultural and educational institutions within and just outside of Pacot, primarily located at the intersections of the neighborhood. Much like vacant Gingerbreads, Pacot has a greater concentration of these institutions (some of which are profiled later in this report).

The presence of educational institutions in and around Pacot contribute to the neighborhood's role as a thoroughfare for those traveling to and from school or downtown for work. Rue Garoute, in particular, serves as a primary route for those walking to and from Croix Deprez, the more informal and lower income neighborhood to the south. The site of the future HELP campus on Rue Garoute presents a significant opportunity for leveraging positive change within the neighborhood given its pivotal and highly visible location.





Students en route to school via Rue Garoute. At left is #16 Rue Garoute, one of the buildings on the future HELP campus.

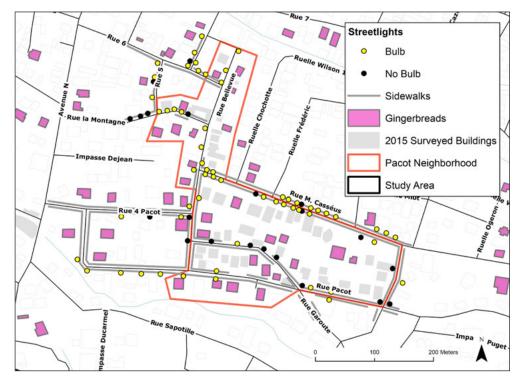
While the neighborhood serves as a thoroughfare, conditions are not particularly conducive to pedestrian activity. The aforementioned Article 14 from the 1963 Law calls for a two meter space between a property's enclosure and the street to provide for a sidewalk, the cost of which is borne 50/50 by property owner and the Department of Public Works (CIAT 2013, 15). The 2017 team hand-mapped the presence of sidewalks within Pacot. Many of the streets have no sidewalks or sidewalks that have limited walkability, and few conform to the two meter code.





The limited sidewalks in the Pacot neighborhood create challenging conditions for pedestrians.

Street lighting was also hand-mapped during the 2017 fieldwork. While the functionality of all lights could not be confirmed, this documentation suggested that both the presence and functionality of street lighting is inconsistent throughout the neighborhood. Approximately one quarter of the streetlights did not have bulbs, and there is only one functioning streetlight on Rue Garoute within the study area. HELP students, who walk through the neighborhood at night to return to their dorms, confirmed that streets are dark. Lighting tends to be lacking around the unoccupied properties. This, along with the varying styles, heights, and installations of lights suggests that private property owners may have installed many.



Map of the presence of streetlights and sidewalks in Pacot.

The negative impact of inadequate sidewalks and lighting is compounded by the presence of high walls enclosing properties throughout the neighborhood, which will be examined in detail in the next section. Despite these challenges, the critical mass of Gingerbread heritage in Pacot may still serve as a potential asset to the neighborhood, both in terms of community resilience and creative placemaking, to be explored in later sections of this study.

Walls as Urban Features.

After 1960, Port-au-Prince experienced unprecedented population growth due to rural-to-urban migration, longer life expectancies, and higher birth rates (Tobin 2013). This rise in urbanization and densification, coupled with political instability and the weakening of public institutions, transformed the city, particularly after the collapse of the Duvalier regime in 1986. Crime abetted the evolution of an architecture of fear in the Gingerbread neighborhoods, including Pacot, through the erection of walls to protect properties and their inhabitants. These walls are a relatively new manifestation that altered the urban landscape and relationships between public and private spaces.

"There were no walls. There were maybe short walls limiting the property. There were no gates, or if there were, gates were open....this is something that started in the late 60s, 70s, where people started protecting their properties. Either from theft or...they wanted to feel safe. But the wall is a recent phenomenon in Haitian architecture."

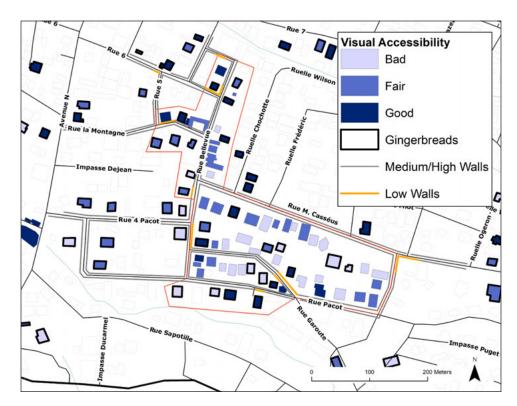
—Ginette Bausson, Viviane Gauthier Trust

"The Gingerbread houses in their heyday...either had no fence or had strictly transparent fences made of wrought iron...they had little walls and grille work...There was still a way of living, with older people sitting on their galleries in their rocking chairs, and talking to people on the street, and street vendors who would come to bring fruit or specialties."

—Lorraine Mangones, FOKAL

The 2015 GSAPP studio team identified the rising walls as an issue of concern, recording this in their survey as "visual accessibility," or an ability to see the Gingerbread on the property. Their results demonstrated lost connections and also found an inverse relationship between Gingerbread condition and visibility: the better maintained a property, the more limited its visual accessibility. In fact, the most visible of the Gingerbreads in the neighborhood tend to be those that are unoccupied. The addition of more qualitative data by the 2017 team highlighted the correlation between wall heights and lower visual accessibility as well as the extent of high walls across Pacot.

To better understand the evolution of the walls and to identify patterns of change, the 2017 team analyzed historic imagery and documented contemporary conditions within and around the Pacot neighborhood. Gingerbread enclosures in Port of Spain, Trinidad, were also studied as a comparative case.



Correlation of visual accessibility and walls, 2015 and 2017 data.

Case Study: Port of Spain, Trinidad

In Port of Spain, Trinidad, which has not experienced densification and urbanization at the scale of Port-au-Prince, the connection between Gingerbreads and the streetscape is reinforced by low scale walls and fences, maintaining patterns similar to the historical conditions in Port-au-Prince. In Trinidad, no yard or garden is complete without some form of enclosure, but walls maintain visibility and ventilation, as well as stylistic relationships to the Gingerbread architecture





Historical Conditions

Using nearly 800 photographs that survive from a 1980 survey of Gingerbread architecture in Port-au-Prince, the team analyzed the character of the walls and fences that enclosed these residential lots and demarcated private space nearly forty years ago. The overwhelming majority of these properties appeared to comport with the ideals set forth in the aforementioned 1963 planning regulations, which called for low walls in front of garden setbacks. These configurations allowed for visual access between the street and the houses, creating a transitional zone between public and private space that reinforced community connections. The 1980 imagery demonstrated a number of conditions and trends, illustrated as follow:

There is a long history of metalwork artisanship in Haiti, and this was manifested in the Gingerbreads, which were often characterized by iron fencing atop low stone-knee masonry walls. This created security and demarcated private space, but allowed for visual access.











Closer to the downtown area, Gingerbreads and their lots tend to be more modest. Small Gingerbreads with limited front gardens were sometimes simply fenced, for example with chain link. Other Gingerbreads closer to the urban core had no fences at all, as these structures served to create a street wall themselves. Elevated entries and porch rails differentiated yet connected the spaces of private residence and thoroughfare.





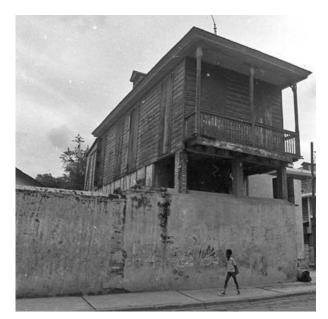
There is some evidence in 1980 of increases in wall heights, likely in response to growing security concerns in the city. Still, most of these higher masonry walls were perforated to maintain visibility and ventilation, and did not fully segregate the Gingerbread from the public realm.

While masonry walls were prevalent, most were relatively low and designed to allow for visual access and the flow of air and light.









The 1980 images documented very few instances in which wall heights were increased with solid masonry, thereby severing visual access to the Gingerbread and its immediate surroundings at eye level. However, these isolated examples suggest the early days of an architecture of security that is now commonplace.





Contemporary Conditions

Today, the neighborhood of Pacot is hidden behind these ever-increasing walls. The once strong presence of Gingerbread architecture is now obscured and the social-spatial relationships it engendered now fractured. The transitional zone between the private and public realms barely survives, as the walls create profound barriers that isolate the street and disconnect it from the broader urban landscape. Gingerbread homes and institutions now largely exist as fortified enclaves, sequestered from street life.

Some common phenomena related to the evolution of these walls were documented during the 2015 and 2017 fieldwork and are illustrated on the following pages.





Typical streetscapes in the Pacot neighborhood, 2017.



A rare surviving example of traditionally designed masonry and metalwork fencing in Pacot that reinforces the connection between the Gingerbread and the streetscape, 2017.













Low walls that allowed for visibility and ventilation have been replaced with high, solid barriers that shield the private realm from street activity, as evidenced by these 1980 and 2015 comparisons.





Stone-knee masonry walls once complemented with metal grilles have been infilled with masonry, and metalwork is less evident in walls in general, 2017.





Masonry walls in the Pacot neighborhood indicate layers of growth, which incrementally increased heights and diminished visual connections, 2017.





The combination of high walls and foliage, like bougainvillea, can create a shaded pedestrian canopy. Providing some protection from the heat and sun of Port-au-Prince, this further separates the Gingerbreads from the street experience.









Infill development in the front gardens of Gingerbreads contribute to the increase in wall heights and visual disconnections, as evidenced by these 1980 and 2015 comparisons.





By enclosing the streetscape, an effect created by the walls is an informal street vendor space.



Barbed and razor wire add to the defensive quality of the walls, characterizing an architecture of fear, 2017.









While the walls are intended to increase security, they have also become an important advertisement and communication vehicle for Gingerbreads that have been adaptively reused by cultural and educational institutions. Especially in the absence of visual connections to the buildings themselves, wall signage serves a vital wayfinding function.





Large, blank walls have also become a target for graffiti.

"When you walk down the street, you don't see [Gingerbreads]. You don't see them because the visuals are chaotic. First, you have the walls, and the walls are painted with publicity. So when you're walking down the street you just see red, blue, and yellow things..."

—Lorraine Mangones, FOKAL

Findings

In a visual survey of Pacot today, one might conclude that the urban form—once characterized by Gingerbreads and their spatial arrangements—is now dominated by the walls. This evolution marks profound changes in public-private and social-spatial relationships, driven by a sense of fear that has grown with the city's urbanization and densification, as well as the ongoing absence of reliable institutions to safeguard public security.

This phenomenon is not specific to Haiti. As urban areas around the world grow, the influx of new populations cause the "traditional lack of boundaries between the private sphere and public space to become a source of anxiety." Unlike the controlled space of the private sphere, public space is perceived as belonging to the "other," who transforms it into a threatening arena of disorder and lack of control. Therefore, we build a wall to ensure our own privacy and protection (Fayel 2015, 177). Much like gated communities, these walls are more than simply physical barriers. They represent a bulwark against the general degradation of the urban social order. They demonstrate the increasing attempt to substitute private controls for public organization. And they reflect profound tensions between "exclusionary aspirations rooted in fear and protection of privilege and the values of civic responsibility... and between the need for personal and community control of the environment and the dangers of making outsiders of fellow citizens" (Blakely and Snyder 1997, 3).

The frontage space of the Gingerbreads—whether garden or porch—provided a realm in which residential and street life collided, forming social and visual relationships. By building a wall, property owners emancipate their yard for private use and significantly reduce the liminal intermediate zones between public and private spaces. While providing some degree of protection, these walls further diminish social cohesion and trust.

There is great promise in the idea of taking down walls or designing them to be more transparent, but profound security concerns in Port-au-Prince mean that this may not always be feasible in the short term. In addition, the more global phenomenon of wall building offers few if any comparative cases for how their removal might be achieved in the long-term. A few examples exist in North America for incentivizing the removal of chain link fences, including Bradenton, Florida, Elgin, Illinois, and Toronto, Canada. And cities such as London have mounted campaigns against "defensive architecture," which discourages humans and animals from sitting, lying, perching, and climbing on building and landscape elements. However, there seems to be limited experience for eliminating these barriers and re-conceiving private-public spaces, and the studio found little in its research that might serve as a comparative model. More promise is demonstrated in the potential use of the walls for creative placemaking, which may mitigate their negative impacts and engender additional societal and environmental benefits. These ideas will be discussed later in this report.

Educational and Cultural Gingerbreads.

In addition to the Pacot survey, the studio undertook a separate survey and conducted unstructured interviews at Gingerbreads serving educational and cultural uses, both within and outside of the Pacot node. The 2015 survey identified this category as the second most common Gingerbread use (following residential), and these educational/cultural institutions may have experience directly relevant to the creation of the new HELP campus. Thus the intention of this survey was to establish a more nuanced understanding about the opportunities that Gingerbreads offer and the constraints that they impose upon this user group.

The adaptation of Gingerbreads for educational and cultural use has a long history in Portau-Prince. The 1980 survey of the Gingerbreads documented a number of instances in which educational and cultural institutions in Port-au-Prince were using Gingerbreads for their programming or incorporated the buildings as part of their campus.















Gingerbreads for educational and cultural purposes in 1980 exhibit the presence of walls and prominent painted signage that remains today.

The 2015 survey identified 45 Gingerbreads employed for educational and cultural purposes, suggesting that this trend increased through time. The studio team conducted interviews with owners and staff of 17 of the educational and cultural institutions identified in 2015 and listed below:

- Université de Notre Dame Haiti
- Université Épiscopale d'Haiti
- Université Paodes
- Maison Ménagère Anne Marie P.P. Desvarieux
- Académie Haïtienne des Arts Culinaires
- Collège Isidore Jean Louis
- National American Studies School
- Centre de Formation Moderne
- Collège Simone de Beauvoir
- Collège Mixte Lamartinière
- Direction Nationale du Livre
- Maison Dufort
- Maison Viviane Gauthier
- Institution Mixte Gaif Legrand
- Agronomes et Vétérinaires Sans Frontières
- Avocats Sans Frontière
- UNAHTEC

Thirteen of these institutions are described individually, as each presents its own lessons. Following these profiles, grouped roughly according to function, this study identifies common trends relevant to some or all of the institutions surveyed.

UNIVERSITIES:

Université de Notre Dame d'Haïti 126 Avenue John Brown





Prior to the earthquake, this Gingerbread and the surrounding land were rented by the Université de Notre Dame d'Haïti (UNDH), which has other portions of its campus elsewhere in the city. The Gingerbread itself was used for administrative purposes as well as for some university courses. Behind the Gingerbread, UNDH constructed a number of classroom and administrative buildings, as well as attractive facilities for students including outdoor seating areas and a small café.

126 Avenue John Brown in 1980 and 2017.

Following the earthquake, the damage to the building appeared to be so severe that there was no choice but to tear it down. According to Dr. Jean Denis Saint-Felix, members of the UNDH faculty tried to sponsor a restoration study, but the University and the property owner were not very supportive. The unanimous opinion of outside engineers as well as ISPAN was that the only solution was to dismantle the building. Clearing it would alleviate concerns for student safety, as well as provide the University with a suitable location for a new building.

Meanwhile, UNDH moved forward with purchasing both the land and the building in its damaged state, streamlining the decision-making process for the property. Given this large purchase as well as the additional improvements they made to this portion of their campus following the earthquake, the University has been unable to find the funds necessary to tear down the Gingerbread.

Following the success of the Maison Dufort project as well as the recent (and admittedly less refined) restoration project on Ave. Lamartinière, members of the UNDH administration now believe that there may be a way to stabilize and restore the house.

According to Dr. Saint-Felix, UNDH does not currently have funds in place for such an ambitious restoration and he believes that fund raising for such a project will be difficult. Nevertheless, he expressed an interest in being part of a community of institutions facing similar problems.

UNIVERSITIES:

Université Épiscopale d'Haiti Rue Légitime





The Gingerbread at the University Episcopale d'Haiti surrounded by newer buildings on the campus.

The Gingerbread house on this campus was originally the house of François Denys Légitime, president of Haiti from 1888-1889. After his death, his family sold it to another family who sold it (along with the surrounding land) to the Episcopal Church. It is one of relatively few Gingerbread houses made entirely of timber (no remplissage filling).

The church used the building as the location of its first seminary, training clergy for Episcopal churches elsewhere in the country. The seminary was so successful that it needed to expand, and eventually moved to a new campus (currently on Rue Henri Christophe).

At the same moment, the Episcopal Church expanded its educational mission, offering university degrees in secular subjects, and the Gingerbread became the administrative offices for the university. It continues to be used in this same way today.

During the earthquake, the building suffered only minor damage, but the rest of the campus was largely destroyed. A three-story classroom building adjacent to the Gingerbread collapsed and some of the debris damaged the ground floor porch. This damage to the Gingerbread was quickly repaired. Bertha Blanc, one of the administrators, reports that the institution has had no difficulty in providing regular maintenance for the building, and it figures prominently in a brochure designed to attract students.

Following the earthquake, the university has held many of its classes in temporary sheds as it works to gradually rebuild. Construction is ongoing. During this time, the Gingerbread has played a key role as an administrative hub, the stable point of a campus largely in flux as it recovers from disaster. Nevertheless, as the university imagines its future, some have called for the Gingerbread to be demolished to provide more room for classrooms.

UNIVERSITIES:

Université Paodes 26 Rue de la Montagne





This university specializes in training for international development and foreign affairs. Located just at the top of Rue 5, on which the HELP campus is currently situated, it is guarded by a high wall. The university only occupied this site after the earthquake, and it has found the Gingerbread to be suitable for its use, though it has had to alter the building considerably. M. Jeune Kenny, the head of facilities, explained that the Gingerbread, a large masonry structure, is in constant use as both classrooms and administrative offices. Even the crawlspace/basement has been converted to offices (with very low ceilings!).

Universite Paodes in 1980 and 2017. Significant alterations have occurred to the central tower.

Unlike the other universities described previously, Paodes does not have extensive grounds or further buildings on its campus. All activities take place in the converted Gingerbread, though there have been additions to expand the footprint of the building. It is central to the university's operations. The fact that it is a Gingerbread is not clearly a marketing asset, though the grandeur of the structure adds to its institutional image.

According to Kenny, the intricacies of the structure and age, along with high costs for materials, makes maintenance an ongoing challenge. As evidenced by the 1980s photos, the Gingerbread has undergone significant change over the past three decades. Even in the last two years (2015 to 2017), alterations have been made to better accommodate the institution.

Additional canopies and ornamentation have been added since 2015 (left) and 2017.





PROFESSIONAL SCHOOLS:

Maison Ménagère Anne Marie P.P. Desvarieux 118 Avenue Jean Paul II



The Gingerbread at Maison Ménagère Anne Marie P.P. Desvarieux in 2017.

The current director, M. Kelvin Desvarieux, is the son of Anne Marie Desvarieux, who founded this school of sewing, fashion, and cooking. She died recently, and with her, a large piece of institutional memory was lost. M. Desvarieux admitted that he did not know as much about the Gingerbread house as he wished, and that most of his focus is on directing the affairs of the school itself, which conducts its business in a series of buildings located behind the Gingerbread. According to Desvarieux, there tend to be about 250 students enrolled at the school at a given moment.

The school has owned the land and the house since well before the earthquake. As recently as the early 2000s, the Gingerbread was rented to a primary school, which gave the main school an additional source of income. That use stopped in approximately 2007 because the children seemed to induce too much wear on the property and interfered with the other, older students using the rear portion of the campus.

Desvarieux explained that he has not entered the abandoned Gingerbread house for at least two years, but he believes that the house remains in stable condition, even though some of the windows remain open, and some rain inevitably gets inside. Nevertheless, he says that the house has become a source of constant preoccupation for himself and the school, as they seek ways to increase and diversify their revenue stream. If the house can be saved and reused, this could help strengthen the school as an institution. Desvarieux's sister tried to open a small restaurant on the lawn in front of the Gingerbread, intending to draw customers with both the pleasant garden setting as well as the view of the Gingerbread, but this venture did not succeed. Desvarieux believes that the idea still has merit, but he needs to provide better facilities, including making the Gingerbread more presentable, in order to make the restaurant more attractive.

Devarieux is not in contact with any other institution like FOKAL. He is unaware that the Gingerbread on his property features prominently on the webpage of the Haitian ministry of tourism. He is seeking additional public-facing business opportunities that will allow him to make improvements to the Gingerbread and the larger campus.





(Left) Maison Ménagère Anne Marie P.P. Desvarieux in 1980. (Top) The Gingerbread in 2009, photographed by World Monuments Fund prior to the earthquake. Some deterioration is already evident.

(Bottom) The Gingerbread in 2017 with the occupied classroom building visible behind the Gingerbread.



PROFESSIONAL SCHOOLS:

Académie Haïtienne des Arts Culinaires 48 Avenue Lamartinière





(Left) 48 Avenue Lamartinière in 1980; (Right) The newly painted Gingerbread seen from inside the wall.

This Gingerbread, located on a prominent corner of Avenue Lamartinière, has long been the home of a dance school that owns the building and offers sporadic classes, which mostly occur over the weekends. Four years ago, well after the earthquake, the culinary school opened, giving the Gingerbread a more intensive use.

The culinary school, while only renting, began repainting the Gingerbread as early as 2015. Recently, they repainted the iconic tower of their Gingerbread, which is highly visible from the street. According to the director, Gabrielle Pierre, this was part of an effort to better market their school. Since repainting, there has been noticeably more interest on the part of prospective students, current students, and even foreign visitors. Their program continues to grow, and they currently have around 100 students inscribed.

According to Mme. Pierre, the style of the Gingerbread complements the mission of the institution, and this is particularly apparent during the open houses that the school hosts several times a year. Every graduating class participates in a Haitian recipe competition, and members of the public come to eat the results. The school also hosts a holiday party that is open to the public, and everyone enjoys the chance to eat food prepared by the students in the distinctive setting of the Gingerbread house.

Portions of the culinary training involving open flames (the lesson on crêpes Suzette, for instance) occur in an adjacent outbuilding to avoid the danger of using gas ranges in the wooden Gingerbread.



2012.



2015.



65

Collège Isidore Jean Louis 73 Avenue Christophe



Panoramic view of the Gingerbread and surrounding lot, 2017.

The school was initially founded in 1966 in a building on Ruelle Waag. When the Gardère family (one of the owners of Rhum Barbancourt) vacated this Gingerbread, it attracted the attention of the school's director, Jean-Michel Jean Louis, who then rented the property from the family and moved his school.

M. Jean Louis had been trained as a physician, but became an educator. He built the school in three phases. As the former director of the Association of Private Schools in Port-au-Prince, he claims that these three steps are common for many educational institutions using Gingerbreads:

- 1. First, he rented the property (the current building with the surrounding plot of land). Eventually, the landlord complained that his students were subjecting the grounds to uncommon wear-and-tear, and urged M. Jean Louis to consider buying the property.
- 2. He went to the bank, got a loan and bought both the house and the land. He realized that in order to sustain the payments he needed to make on his loan, he needed to increase the number of students attending his school. In order to increase the number of students, he needed to build new facilities in addition to the Gingerbread house. And, in order to undertake such a building project, he needed yet another loan from the bank.
- 3. M. Jean Louis secured a second loan, building a series of classroom buildings behind the Gingerbread, and has managed to keep his school going at the present location for more than 40 years.

While the Gingerbread survived the earthquake without a problem, M. Jean Louis' outlook on the future of the school is uncertain. The facilities are used as a professional school in the afternoon to increase the use of the building and add to the overall revenue, but there are management challenges. Furthermore, he says that it has become too easy to open a private school, since the accreditation process has been poorly managed or ignored. According to him, too many private schools have been opened in recent years, and all of them struggle to maintain an enrollment sufficient to support their institution.

He claims partial responsibility or the current financial woes facing his institution. He allows a series of resident tenants who are teachers at the school to continue to use the upper story of the Gingerbread, but who do not pay rent. That has not helped his bottom line, and he is worried that he no longer has enough revenue to reliably maintain his buildings. Despite all of his efforts to diversify and intensify the use of his school and the Gingerbread, the building shows visible signs of deterioration.





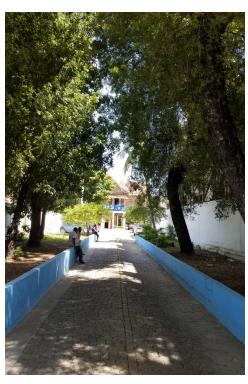


(Top) The Gingerbread in 1980 and 2017.

(Bottom) Detail view of the porch and second story windows, 2017.

National American Studies School 17 Avenue Lamartinière





The Gingerbread and entry path in 1980 and 2017.

This house was once called "la maison du mahogany" since it was the location of a workshop and showroom for a prominent family of woodworkers. Philippe Khawly, a Lebanese-Haitian, currently owns the house and land, and his father had bought it for use as his workshop.

Philippe left Haiti after the earthquake and was looking for a tenant. Donald Pierre Louis, the director of the National American Studies School (NAS), was looking for a new location for his school (his former building collapsed during the earthquake), and agreed to rent the house and land starting in 2013. The land was particularly attractive since it provided him with the flexible space he needed to create new temporary classrooms for his school. The former site of NAS had been in a quasi-Gingerbread house made out of concrete, and Donald Pierre Louis liked the idea of having his school in a proper Gingerbread. He was educated as an engineer at Cornell University, and sees the Gingerbread style as a point of pride in Haitian heritage that is worth passing to the next generation as part of their education.

Currently, only the ground floor is used by the school, serving as administrative offices and as the library. The floor of the upper story has significantly deteriorated, due in part to the fact that the upper windows remain open during rainstorms, and the space is no longer safe to use.

As a rental tenant with the option to buy, M. Pierre Louis has been reluctant to bring up the subject of repairs with the landlord because he was under the impression that he would require authorization from ISPAN for any intervention on the house, including painting. He is in contact with FOKAL, but has not seen the outcome of the Dufort restoration and was unaware of the ongoing work at the Maison Chenet. Nevertheless, the ambition of the school is to provide high quality education in appropriate facilities. "Educate for service" is the motto of the school, and M.. Pierre Louis wished that the Gingerbread were in better condition so that it would be a better symbol or brand.







(Top) The Gingerbread in 2015 and 2017, showing little alteration.



M. Pierre Louis discussing the Gingerbread with field team members.

Interior view of the Gingerbread showing structural elements and carved detailing.

Centre de Formation Moderne 46 Avenue Lamartinière





The Gingerbread at 46 Avenue Lamartinière in 1980 and 2017.

The director, Levy Accilien, sees the house as an important part of his small campus. The school continues to grow and expand in new buildings surrounding the Gingerbread. There is a firm commitment to ongoing maintenance, the facilities appear to be in good condition. In the morning, the facilities are used for elementary/middle school and in the afternoons, they are used for professional training. The facilities are flexible enough to accommodate both groups, and the school prospers from this more intensive use.

The house was not damaged during the 2010 earthquake, and the school has had no trouble using tuition revenue to maintain and grow the facilities. According to M. Accilien, recent priorities for upgrading the campus have included the chemistry and computer labs.

Even though the Academie Haitienne des Arts Culinaires is located immediately next door, M. Accilien admits that he only has a vague understanding of their mission. He is not in contact with FOKAL and has not seen the restoration projects at Maison Dufort or Chenet.

Collège Simone de Beauvoir 18 Rue Jose Marti





This school is on the edge of the Pacot neighborhood, not far from the current HELP campus. M. Wilson Fritz Saint Fort indicated that it is serving a student population from primary through high school. The Gingerbread is a central building on campus, which includes other more modern buildings and additions.

The Gingerbread in 1980 and 2017, showing many alterations.

M. Saint Fort explained that the Gingerbread only suffered some cosmetic damage as a result of the 2010 earthquake and basic repairs were made. Another building on the campus suffered severe damage and had to be demolished. It has yet to be rebuilt. In the meantime, the Gingerbread has essentially been serving double duty, subsuming many of the activities that had happened in the other building. A comparison between the 1980 Gingerbread survey image and the current conditions indicate that there have been significant losses/changes to the building, including the removal of the front and side porches, and that the building has generally deteriorated.

According to M. Saint Fort, the high cost of repairs and materials preclude regular maintenance and a more complete restoration. The Gingerbread serves as a primary classroom space for the school, making it difficult to undertake any significant project, even if resources were available. While the Gingerbread is critical to the school's mission as an educational space, its role as part of Haitian heritage has not been actively used by the school to attract students or a broader public.

PRIMARY AND SECONDARY SCHOOLS:

Collège Mixte Lamartinière 26 Rue du Travail 3eme



Demolished Gingerbread in 2017.

The director of this school, Mme. Marie Andre Camy, was trained as a physician and then drawn into education. She established the school in its present location to take advantage of the Gingerbread house, which was the original classroom building. As the school grew, additional buildings were built behind the Gingerbread, while the front courtyard served as a playing field.

Until the 2010 earthquake, the Gingerbread hosted all of the primary school classes. In the aftermath of the earthquake, she hired a local engineering firm to assess the damage to the building, and they recommended that she no longer use the building for classes, at which point it was abandoned. Simultaneously, ISPAN documented the building as part of their post-earthquake survey, and implored her not to tear it down.

Mme. Andre Camy claims that in subsequent years, she approached ISPAN, UNICEF, FOKAL and others asking for help to save the building. She was chiefly interested in securing additional financing to help her make repairs, explaining that if the building represents national heritage, then the school alone shouldn't have to bear the costs of its repair.

Meanwhile, parents apparently expressed their concern about their children playing or studying near the abandoned Gingerbread, and the building no longer served as an attractive and welcoming public face for the school. Mme. Andre Camy says that she had to cancel four grades of her primary school because there was no longer any physical space to host the students. After several years of making inquiries about ways to save the building, she decided there was no choice but to tear it down.

Mme. Andre Camy asked ISPAN for authorization to demolish, and they gave her a letter of assent. She says that it broke her heart to watch the first blow of the sledgehammer against the building in April 2017. The materials recuperated during the demolition, including "plenty of boards in great shape" paid for 60 percent of the cost of demolition, or approximately \$6000 USD. She has hired an engineering firm to design her a new building, but expresses concern that the new design lacks the character of the Gingerbread house.

She explained that while she has been in touch with FOKAL, she has not gone to the Maison Dufort (less than 500 ft. away) since its completion, nor is she aware of the team that FOKAL/IPW has trained to do Gingerbread restoration/new construction using Gingerbread techniques. When she approached ISPAN about the demolition of the house, they did not direct her to these resources either.







(Left) The College Mixte Lamartinière intact in 2015. (Right) Remaining portions of the Gingerbread, showing carved wood details, decorative floor tiles, and perforated masonry blocks in 2017.

CULTURAL INSTITUTIONS:

Maison Dufort

10 Rue du Travail 3eme



Maison Dufort in 2017.

Following the completion of the restoration training school at Maison Dufort in 2015, FOKAL has used the restored house to host cultural programming such as a display of the paintings of Burton Chenet, and an exhibition detailing the work to restore the house.

The house is not currently open to the public in a regular fashion, but it does receive periodic visits arranged through FOKAL. Following the completion of the ongoing restoration project at the Maison Chenet, FOKAL aspires to incorporate both houses into their larger mission.



Maison Dufort in 2015 during restoration.



Spherical view of the courtyard at Maison Dufort.



The field team examining interpretative panels about the restoration.



Spherical view of the restored interior at Maison Dufort.

CULTURAL INSTITUTIONS:

Maison Viviane Gauthier 15 Rue M



Maison Gauthier, an extant and beautiful Gingerbread exhibiting many of the style's defining characteristics.

While the early history of this Gingerbread house prior to its ownership by the Gauthier family remains murky, it has been used as a school of dance for nearly seventy years, and is one of the most iconic Gingerbread houses remaining in Port-au-Prince. Madame Gauthier, who grew up in the house, taught ballet, physical education and Haitian folk dance classes, attracting students of a variety of backgrounds and ages. These courses were taught on the spacious verandas surrounding the house, as well as in the side yards. The Viviane Gauthier dance company, which frequently toured internationally, was also based at the house and trained on the grounds. The ground floor was filled with activity and was treated as a very public space, whereas the second floor was reserved for Madame Gauthier and her close associates.

The house suffered only minor damage during the 2010 earthquake, yet requires significant restoration work due to the gradual decay of the original materials. Some of the plaster panels had been coated in cement during a previous campaign of repairs, and failed during the earthquake. Wooden floorboards and the timber frame have been attacked by termites. In 2015, Madame Gauthier created the Foundation Gauthier, and donated the house and all of her personal belongings to the trust, hoping that this institutional vehicle would help her house get restored and ensure that her dance school would outlast her.

Madame Gauthier lived in the house until her death in the summer of 2017. Since that time, plans to restore the house have continued to coalesce. The Foundation Gauthier, with financial support from Deutsche Bank Americas Foundation and the John McAslan Family Trust, has moved forward with some preliminary shoring to stabilize the house, a project implemented by the restoration team trained by FOKAL at the Maison Dufort. The association anticipates





mounting a full restoration campaign in the near future, as well as adding additional, purpose-built facilities for dance instruction. Their hope is that dance classes will continue on site even during the restoration process, and that course fees charged by dance classes in the future will be used to maintain the house and grounds as well as the staff on site.





(Top) Maison Gauthier in 1980 and 2015.

(Middle, left to right) Carved wood brackets and corrugated metal roof at the porch; Ginette Bausson showing the field team the construction materials and methods of the Gingerbread.

(Bottom, left to right) The field team capturing images of the interior, which retains many characteristic decorative elements; Spherical photo of the porch where many dance classes were held.





CULTURAL INSTITUTIONS:

Direction Nationale du Livre 10 Rue 3



The Gingerbread at 10 Rue 3 in 1980.

This institution stands apart from the others previously described in that it is a government agency, not a private cultural or educational institution. However, its mission, which includes oversight of the publication of school textbooks in Haiti, supports the mission of the educational institutions. There is a library that is open to the public also housed within the building.

Its historical quality as a Gingerbread is seen as an asset, though as a government agency it does not do any marketing per se. The Gingerbread is the only structure and vital to the agency's mission, though evidence suggest multiple additions to the original structure.



The Direction Nationale du Livre in 2017.

Persistent Challenges

Following the survey and the narratives of the unstructured interviews, the team identified three general obstacles to be addressed by most educational and cultural institutions grappling with a Gingerbread: a lack of clarity concerning ownership and tenancy; a scarcity of resources for acquisition, renovation and maintenance; and the deteriorating physical conditions of the Gingerbread houses themselves.

Agency

Absent owners, especially those who do not live on the island, can make it difficult to purchase a property or make changes to a rental property that require the owner's consent. In the context of educational and cultural Gingerbreads, several are rented or shared spaces. Given the general reluctance of tenants to spend money to improve a property that they do not own, and the specific frustrations we heard expressed by tenants in rented Gingerbreads, it appears that the anecdote of Jean Michel Jean Louis of the Collège Isidore Jean Louis is correct—for institutional tenants, there is no way forward except to buy the property.

For owners, uncertainty persists concerning the role of ISPAN. On one hand, more than one institutional administrator expressed a belief that ISPAN must issue a permit for any significant changes to their building, or to tear it down (a regulatory authority which ISPAN does not have). On the other, more than one institutional administrator expressed the hope that ISPAN would provide them with technical or financial assistance since their Gingerbread property could be considered a heritage site for all Haitians. This uncertainty may have some benefit to maintaining the corpus of Gingerbreads in that some owners are reluctant to tear down their building, even if it was damaged by the earthquake. At the same time, some owners continue to wait, expecting assistance from the government which is not likely to come.

Finally, administrators of the educational/cultural institutions generally considered their constituency to consist of the parents/families of their students and the students themselves, rather than the people who lived around their institutions, or other institutions facing similar problems. This outlook condemns each institution to face its problems on its own, without the support of the surrounding community or peer institutions.

Resources

Maintenance of Gingerbreads or acquisition of the property can strain the resources of some educational and cultural institutions. As mission-driven institutions, infrastructural investments must be balanced with teacher and staff salaries, scholarships, and supplies. For the private schools, increased investment in expansions or maintenance risks raising student tuition fees or being forced to take more students. The high cost of materials adds to the expense of regular maintenance, repairs and restoration.

Some schools, such as the Centre de Formation Moderne, suffered only minor damage during the earthquake and have had little trouble in managing their resources and allocating a part of the budget each year to maintenance. As a result, the Gingerbread is well-maintained and easily supports the current multi-use function. Institutions that have not consistently prioritized Gingerbread maintenance and dedicated portions of their revenue flow to this end have watched their buildings gradually deteriorate.

Gingerbread Condition

The Gingerbreads have deteriorated at different rates depending on the amount of upkeep and the extent of earthquake damage. It is worth considering the fate of the Gingerbreads that are in the worst condition. Institutions such as the Université de Notre Dame d'Haiti (UNDH) and the Collège Mixte Lamartinière suffered significant damage during the earthquake and were forced to abandon the use of their Gingerbread. The Collège Mixte proceeded to demolish its Gingerbread, whereas the Gingerbread of UNDH is so large that the school has been unable to muster the resources to dismantle it, let alone stabilize and repair it.

The large Gingerbread of the Maison Ménagère Anne Marie P.P. Desvarieux has also been abandoned, though the deterioration is primarily due to years of deferred maintenance rather than the 2010 earthquake. The restoration of such property is likely to exceed the existing resources of the institution and they are unlikely to be able to secure a loan for such a project. Nevertheless, this Gingerbread is so iconic that it is featured on the website of Haiti's tourism authority. It may be that on this basis, it will be possible to secure additional outside funding.

Indications of Success

Despite these challenges, the Gingerbreads can, and have been, modified to suit the needs of a variety of educational and cultural institutions. Rooms within formerly residential spaces now serve as classrooms, offices, libraries, dance spaces and galleries. In many cases, this reuse has happened since the 2010 earthquake, and under-utilized Gingerbreads have successfully accommodated institutions seeking a new home. The Gingerbreads have provided a culturally significant home for these institutions, and the educational and cultural mission of the institutions appears to be largely aligned with the preservation of the Gingerbreads themselves. The team derived three overarching trends strengthening the connection between these institutions and their buildings: heritage value, campus creation, and intensified use.

Heritage Value

The Gingerbreads play an important role for educational and cultural institutions. In the survey conducted by the team, ten out of the 17 respondents said that the Gingerbread was "very important" to their facility and use, and seven said that their Gingerbread was "of some or occasional" importance. While a few institutions were gifted their Gingerbread, most had been established in their locations specifically in order to take advantage of the features of the Gingerbread. The Gingerbreads are generally attractive because of their distinctive style and their connection to Haitian culture, but several of the institutions use their Gingerbread as a form of specific branding, featuring the building on promotional materials (Université Episcopale d'Haiti) or using the Gingerbread to help their institution stand out to those passing by on the street (Académie Haitienne des Arts Culinaires and Maison Viviane Gauthier).

Campus Creation

One of the attractive qualities of the Gingerbreads is that many of them were built on large plots of land. Institutions such as College Isidore Jean Louis, College Simone de Beauvoir,

College Mixte Lamartinière, and the Universite Episcopale d'Haiti all started with a single Gingerbread house. As their missions expanded, they gradually built other classroom and administrative buildings to create a campus. Relative newcomers like the National American Studies School, which lost its previous school during the 2010 earthquake, were able to quickly reestablish operations thanks to modular classrooms on the grounds surrounding a Gingerbread. In a neighborhood where land is in scarce supply, these educational institutions with expanding missions and a frequent need for additional space have been fortunate to keep their campus concentrated in one location.

Intensified Use

Several institutions were able to successfully intensify the use of their Gingerbread. This typically consists of a partnership between more than one school, or the same school offering training at more than one level. Increased activity and increasing revenue often went hand in hand with increased investment in the maintenance of the property, ensuring the longevity of the Gingerbread portion of the campus.

For example, the Academie Haitienne des Arts Culinaires shares its space with the dance school that owns the building. Their decision to repaint the exterior of the Gingerbread has led to increased visibility for their institution from the street. Their public-facing programming, with special nights during which student chefs prepare traditional meals for a broad audience as part of a cooking competition, helps attract prospective students and employers and strengthens their relationship with the community.

The Gingerbread of the Centre de Formation Moderne also serves more than one type of student. It operates as an elementary and middle school in the morning, and as a professional school in the afternoons. According to the director, the school is thriving with the increased use and revenue, which is allowing the school to expand, including plans for new chemistry and computer labs. When there is enough space and facilities to support multiple uses, and each is well run, it seems that the institution is more likely to succeed.

Future HELP Campus.

Adding to this concentration of educational use is HELP, which operates its student center in a Gingerbread house. This Gingerbread is located at #4 Rue 5, Pacot, and hosts several programs such as English and Leadership classes, recycling and waste management service projects, and student counseling programs, as well as administrative offices. The Gingerbread is surrounded by high walls, which were built by the owners prior to the occupancy of HELP. HELP also rents three nearby properties as student dormitories, forming a dispersed campus arrangement. The students living in the dormitories typically walk to the HELP center.

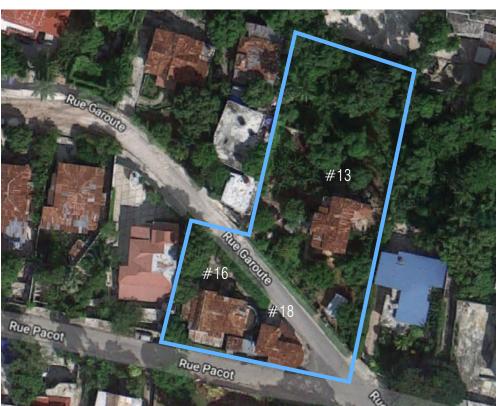


The wall outside of the current HELP campus has painted signage and artwork. The Gingerbread beyond is obscured by the walls and greenery.

In accordance with their mission, HELP is seeking to increase their number of students and to expand the administrative team. In order to accommodate this growth, HELP is planning to develop a new campus that will house all of its programs in one central location (MASS 2017). In February 2015, HELP purchased a property near the existing HELP campus in Pacot. The properties are on two parcels on the opposite sides of Rue Garoute. The properties are #13 Rue Garoute, #16 Rue Garoute and #18 Rue Garoute. #13 and #16 are Gingerbread houses. The images show the current site of the new HELP campus. Rue Garoute separates the two parcels, with #13 on the north side and #26 and #18 on the south side.



The future HELP campus (in blue) is southeast of the current HELP center (in yellow), which is located just west of the Pacot node (in red).



The future HELP campus (outlined in blue) and the three existing buildings numbered by address.

This property has open land at its disposal. Large plots are one of the important reasons the Gingerbreads are utilized for educational and cultural purposes. #13 Rue Garoute has significant damage and needs extensive restoration. One of the notable feature of this property is the low walls around it. This property seems to be in a relatively better condition. The walls on Rue Pacot are also low, as the upper half of the Gingerbread is visible. The corner location of this structure at the intersection of Rue Garoute and Rue Pacot is highly trafficked by students going through and to the neighborhood, providing many opportunities for the future HELP campus.







(Top) The Gingerbread at #13 Rue Garoute, in 1980 and 2017 seen from Rue Garoute.

(Bottom) The Gingerbread at #16 Rue Garoute.



The third existing building on the future campus. #18 Rue Garoute.

Given its relatively prominent location, the HELP campus has the potential to set an example for creative interventions for the Gingerbreads, and raise awareness about the value and significance of this heritage. HELP understands the significance of the Gingerbread houses and therefore seeks to preserve these structures in a way that could serve their purpose of educating Haitian students and providing them with opportunities through scholarship programs.

The creation of a campus, with the Gingerbreads as an anchor, has the potential to serve the community and bring about a wave of social change.

It is worth considering the plans for a new HELP campus in light of the experience of other Gingerbreads dedicated to educational and cultural use. HELP has already overcome significant obstacles to purchase the Gingerbread properties on Rue Garoute, but still faces the common but significant challenge of securing adequate resources to improve the material condition of their Gingerbreads. HELP has embraced the heritage value and intrinsic possibilities for future campus development around the Gingerbreads, but there may be room for additional public-facing programming that would intensify the use of their campus and further cement their relationship with the neighborhood.



Rue Garoute, looking southeast toward the future campus. #13 Rue Garoute is visible at left.



Rue Garoute, looking northwest. The fence for #16 Rue Garoute is at left.



Intersection of Rue Garoute and Rue Pacot, looking northwest. The Gingerbread at #13 Rue Garoute is at right, behind a low wall.





Instrumentalizing Heritage.

As noted previously, by contextualizing the Gingerbreads as potential "actors" in the social and physical fabric of the city, this studio takes a broad view of how this heritage might be instrumentalized toward greater community and environmental benefit. The societal values of the Gingerbreads extend beyond simply ensuring their survival in the landscape. The urban conditions within Port-au-Prince compel innovative courses of action that embrace how those societal values might be spatialized and leveraged to improve quality of life. Thus, the team examined how Gingerbread heritage might serve a more integrative and catalytic function in relation to community resilience and creative placemaking, and also researched the financial tools needed to activate heritage in these ways. This research was largely accomplished through the study of comparative cases.

"People I've met who have lived in these houses have very fond memories, are very attached to them, even if the house is crumbling, even if the house is in this state, most cases they will not leave it, they will stay."

—Ginette Baussan, Vivane Gauthier Trust

Community Resilience.

Resilience defines the capacity to withstand systemic shock. When gazing into the global future of increasingly erratic weather patterns, communal abilities to respond resiliently to extreme climate events are of pressing concern. In the Caribbean, the challenges of climate change are often exacerbated by unique bio-regional and geopolitical vulnerabilities—of which Haiti embodies some of the most poignant (Gomes 2015).

Basic measures of urban resilience commonly revolve around the cultivation of systemic flexibility and redundancy, disaster risk management strategies, urban infrastructural improvements, risk-based land use planning, and participatory mechanisms to increase social capacities to learn and adapt (Jha et al 2013). Global heritage organizations and professionals have seized upon this growing body of resilience literature to forge new tactics for preservation (Ripp 2014, Gilbert et al 2015, Garcia 2016). The aims of these reports are to propose goals and offer actionable strategies for integrating resilience into comprehensive planning initiatives. The utility of many of these schemes, however, rests heavily upon a presumption of infrastructural standards and governmental apparatuses, which, while common throughout Europe and the United States, are often absent in lesser developed contexts.

Resilience and the Haitian Context

In settings without strong state leadership or public infrastructure, measures of resilience rely more heavily on social capacities—not only to self-organize and identify community needs, but also to implement viable solutions.

"Although climate change adaptation in urban areas is increasingly recognized as a priority for funding and programming by local authorities, national governments and international agencies, relatively little attention is paid to the ways that the organized and collective activities of low-income residents can contribute to this (although there is a growing body of evidence of more individual or household-based responses) ... True resilience will not be designed and achieved by government alone, but will need the active partnership of marginalized rural and urban residents in the definition of vulnerability and the strategies for combating it. Vulnerability is not only shaped by the extent or severity of climate-related hazards, but is equally an outcome of the sensitivity of social or ecological systems to harm, and the capacity of these systems to cope and to adapt to reduce future harm." (Dobson et al 2015, 605–7)

While the study area of Pacot may not qualify as low-income in relation to the vast majority of other Port-au-Prince neighborhoods, the lack of governance and infrastructural authority throughout the city creates a context which is nevertheless more informal than not. As such, it is of primary importance to examine the roles that local residents, small organizations, and individual properties can play in the development of community resilience.

In recognition of this dearth of studies that squarely examine social indicators of resilience, Heather McMillen and others in association with the US Forest Service published an article in 2016 on community stewardship practices. Defining social resilience as "the ability of groups or communities to cope with external stresses and disturbances as a result of social, political and environmental change," the authors point toward "place attachment, social cohesion, social networks, and knowledge exchange and diversification" as abstract but empirically observable indicators (McMillen et al 2016, 1–2). With an eye toward collective capacities to cultivate and maintain "well-being; power and agency; and equity and justice," the authors make a compelling case for the powerful contribution of urban environmental stewardship practices (UES) to these goals (McMillen et al 2016, 2).

To sharpen focus upon cultural heritage, Jamie Mackee provides a unique consideration of resilience as a form of systems thinking analysis through which tangible and intangible heritage can be understood to survive changes over time (2008).

"[Culture] and built heritage can be considered as systems that are interconnected and interdependent. The application of resilience thinking to the conservation of built heritage provides the opportunity to understand and deal with the persistence and survival of heritage against the ongoing forces physical, social and natural change. That is, resilience thinking engages in a trans-disciplinary way the dynamic interconnections and interdependencies amongst the key systems." (Mackee 2008, 849)

Through an examination of Buddhist philosophy, Mackee moves beyond generalized measures of social engagement in order to instead locate culturally specific routes toward resilience in built heritage. While the attempt to standardize social stratagems toward resilience for universal application is tempting, and the exchange of experiences between contexts remains important, the constitutive elements of social solidarity and their legibility to outsiders are nevertheless entirely contingent upon the unique material and socio-political conditions in which they are required. Mackee's discussion is a reminder that the question of community resilience in Pacot can only ultimately be fully understood in its own cultural vocabularies.

Resilience in Pacot

The neighborhood of Pacot exists as a largely intact, late-nineteenth century, upper-class residential settlement. It is framed, however, by more recently developed neighborhoods inflected with the same informal urbanity that defines Port-au-Prince more broadly as a whole. This juxtaposition of extreme density at the edges of what are otherwise anachronistically large lot sizes with similarly out-of-scale, single-family houses, produces a unique confluence of possible use. The Gingerbreads, designed as houses with high ceilings and elaborate ornament, have lent themselves to uses by educational and cultural organizations, for whom the older architectural features can provide flexibility, brand notoriety, or both. The just-off-center setting of these old giants in the midst of rapid urban growth have made Pacot a crossroads of classes and income brackets, creating the conditions for diverse social mixing, as-yet unrealized.

Both the Gingerbreads themselves and the urban context of Pacot in which they are found are ripe with contradictions with regard to measures of resilience. Flexibility and diversity of possible or realized uses provide opportunities for survival—both social and built. Yet the dearth of material resources and persistence of what the World Bank has called a "conflict-poverty trap" (Verner et al 2007, p. xiii) in the composition of social relationships have resulted in obstacles to resilience so large that the city's widespread recovery from the devastating earthquake of 2010 has been extraordinarily slow and desperately uneven.

In cultivating connections between heritage conservation and social resilience in Port-au-Prince, the studio has located great creative potential in the successful, flexible adaptation of these Gingerbreads and their generous, green settings for various educational and cultural uses. The Gingerbreads that survived the earthquake and neighborhoods such as Pacot were able to absorb considerable amounts of the city's residential, administrative and educational capacities that were displaced through the loss of buildings in the dense urban core. The reopening of schools is a critical indicator of post-disaster resilience, as a daily family rhythm is often built around the hours when children must be in school. Reopening schools re-establishes this normalcy. The Gingerbreads have helped keep education in Port-au-Prince resilient.

The studio's analysis and proposals have sought to explore how features of resilience, embodied in large green lots, flexible spaces and iconic ornamental reference to Haitian culture might be capitalized upon and contributed to as invaluable embodiments of Haitian persistence and creative reinvention.

Case Study: Parc Martissant, Port-au-Prince

Le Parc de Martissant or Martissant Park began as a proposal by FOKAL in 2007, opening fully to the public with the dedication of its memorial in 2015. Converted from four large formerly private properties in the Martissant area, the park now provides 42 acres of open space to an urban community without other access to natural or public resources. The park has three primary features: a memorial to the earthquake of January 12, 2010, a botanical garden of medicinal plants, and the Katherine Dunham Cultural Center.

Beyond the passive benefits of a beautiful natural setting, FOKAL has committed to fostering intentional community engagement through ongoing programming initiatives. Public art projects, classes at the botanical garden, and open access to resources at the library at the Katherine Dunham center together create conditions for

improved community well-being. These facilities also provide a unique opportunity for the effects of the park upon the surrounding communities to be observed and replicated. The park aims to connect shared spaces and resources to conversations about citizenship and democracy, as well as to notions of cities and public services, expanding collective capacities to understand and to advocate for positive change. Above all what Parc Martissant achieves is an improved sense of community worth—dignity, pride, and respite from the dense surrounding urban environment.



Le Parc Martissant.

Case Study: CHANT

CHANT (aka "Crucian Heritage and Nature Tourism") is a tourism platform which endeavors to link St. Croix's natural and historic resources. Looking toward sustainable economic development models, CHANT seeks to foster lasting connections between broad-based community prosperity and the tourism industry. Focus areas include historic architecture, local arts and crafts, heritage performance and performers, and nature and agricultural education. Tours offered include a Frederiksted Historical Walking Tour, a specific tour of Frederiksted's Free Gut neighborhood, a walking tour modeled upon Alexander Hamilton's experience in the Christiansted neighborhood, a "Ridge to Reef" eco-farm tour, and a series of "Cultural-Historical-Ethno-Botanical" eco-hike tours—among others offered by a plurality of local partner organizations.

Invisible Heritage: Identity, Memory & Our Town is an "ambitious and innovative community revitalization project launched by Crucian Heritage and Nature Tourism (CHANT) to invest in workforce development and historic restoration using creative placemaking as a vehicle for transformation" (ArtPlace n.d. "Invisible Heritage"). The Invisible Heritage project is supported by ArtPlace America. Focusing on the Free Gut neighborhood specifically, Invisible Heritage has as its primary goals the revitalization of abandoned properties, investment in low and moderate income community members, the creation of public

art and a technical job training program in the building arts, and fostering of a wider public dialogue about the economic development of the town toward more participatory planning processes. The project seeks to leverage Free Gut's heritage as a Dutch Colonial settlement of "free black" population as a platform for community pride and resilience.



The Free Gut neighborhood, pre-1916.

While the project is not explicitly directed at strategies of disaster resilience, the island and the neighborhood's historical experience through such trials are indeed mentioned as contextual elements of the community's needs: "Shaped by a complicated history and rooted in a palpable African-ness, Frederiksted is moving forward through a legacy of environmental and economic disaster. With a rate of family homelessness at 17 percent and a poverty rate currently around 25 percent, the need for a textured approach to community development is palpable. Residents have identified employment, safe affordable housing and economic opportunities as the priority areas for community intervention" (ArtPlace n.d. "Invisible Heritage").

Case Study: Center for Coastal Heritage & Resiliency

The Center for Coastal Heritage in Galveston, TX has as its mission the development of compatible connections between the built and natural environment, providing resources and collaborations between experts and organizational partners in coastal resilience, sustainable building practices and environmental health. The Center hopes to produce both "meaningful research" and "applicable education" for consideration of built and cultural heritage in the context of coastal geography. Located as a project of the Galveston Historical Foundation, the Center maintains an alliance for exchanging best practices toward coastal resilience, and looks toward the historic built environment as a resource for developing sustainable communities.

The Center for Coastal Heritage hosts an annual "Living on the Edge" Conference, in addition to symposiums on practical issues facing the historic built environment in the

coastal context, such as "Approaching Water," which sought to address flood damage mitigation strategies in historic houses. Research initiatives occur through the Center's Materials Visualization Lab, which is currently engaged in testing the performance of a range of fasteners (nails, screws, etc) under flood condition duress (Galveston Historical Foundation).



In this example, the heritage organization acts as a hub for scientific, intellectual, and practical knowledges, which can subsequently be distributed throughout a professional and geographic community. While benefiting from many distinct resources which are unavailable to organizations in Pacot, the models employed here for sharing information would not be impossible to implement with less institutionalized funding schema.



Galveston's vulnerability to flooding compels proactive dialogue and research about the resilience of its historic built environment.

Case Study: World Bank / Japan

Japan-World Bank Program for Mainstreaming Disaster Risk Management in Developing Countries seeks to develop educational connections between the 'developing' world and strategies in place for maintaining resilience in Japan. Specifically, this program supports technical assistance, pilot projects, thematic initiatives, knowledge mobilization, and capacity building, in support of practices of disaster risk management, or DRM (The World Bank 2014). Two sub-programs include the Country Program, whose goal is to provide grants to official state programs toward the development of greater capacities for DRM, and the Knowledge Program, which aims to support the exchange of knowledge, expertise and technology between Japan and developing countries.

The International Training Course (ITC) on Disaster Risk Management of Cultural Heritage occurred in September 2016 in Kyoto, organized by the Institute of Disaster Mitigation for Urban Cultural Heritage at Ritsumeikan University (R-DMUCH). In hopes of sharing solutions to similar disaster scenarios, a wide range of national and cultural stakeholder groups became involved to exchange experience at the intersections of disaster resilience and cultural heritage, both built and intangible. While the worlds of disaster resilience and technical conservation remain siloed in most countries, this conference demonstrated evidence of "a growing network of professionals around the world, connecting disaster risk management and cultural heritage conservation" (Garcia 2016).

"The heritage of every city, just as for every country, forms the identity of the people. In post-disaster reconstruction, it is crucial to recover the character and integrity of the place, and therefore, preparedness and mitigation strategies should incorporate consideration of cultural heritage, in order to avoid irreplaceable losses. Just as archaeology is not about the remains, but about the people who created them, cultural heritage is about the people who identify themselves with that culture" (Garcia 2016).





Reconstruction of the Kannon-do Hall at Tenyuji Temple, Ogatsu, Japan after the 2011 earthquake in eastern Japan reinforced community resilience. (Top) After earthquake. (Bottom) After reconstruction.

Creative Placemaking.

"It is difficult to design a space that will not attract people. What is remarkable is how often this has been accomplished."

—Holly Whyte

Creative placemaking is a relatively new term used to describe projects that intentionally include art in place-based community planning and development. In general the term "placemaking" refers to Jane Jacobs' approach to urban planning that incorporates a human-centered, local, and holistic viewpoints into community planning and development, and the added terminology of "creative" refers to the artistic interventions that can be applied to this approach (Bennett 2014). Creative placemaking can vary in form and scale depending on the community initiating the project, however projects are generally aligned by the common goal of strengthening local communities through arts and culture-based partnerships that contribute to both physical and intangible improvement of places. In the United States, the National Endowment for the Arts (NEA) recognizes four goals the intended outcomes of creative placemaking: strengthening and improving the local community of artists and arts organizations, increasing community attachment, improving quality of life, and invigorating local economies (Markusen and Gadwa Nicodemus 2014).

Successful creative placemaking initiatives involve initiators from diverse backgrounds who capitalize on distinctive and unique qualities of the communities they represent. Initiators can come from private, public, for-profits, and nonprofits, however their success depends on their ability to mobilize public will, garner support from the private sector, and securing community engagement and building partnerships (Markusen and Gadwa 2010). In terms of indicators of success, the NEA established 23 indicators (including census data, crime rates, etc.) targeting their four goals, but no robust data sets exist to successfully prove their success (Markusen and Gadwa Nicodemus 2014). Because of their data-limited success indicators and intense focus on specific places, creative placemaking projects often suffer from lack of funding. Nevertheless, growing interest and narratives of success throughout the United States in recent years have spurred funding sources to support creative placemaking projects. Our Town, an initiative of the NEA invested more than \$21 million, and ArtPlace has invested \$56.8 million. These funding sources have only remained possible due to public-private partnerships with foundations like the Ford Foundation and Kresge Foundation, and the U.S. Department of Housing and Urban Development, and the U.S. Department of Education (Markusen and Godwa Nicodemus 2014).

This studio's focus on creative placemaking stems from the 2015 GSAPP studio, which recognized within Pacot "an opportunity for development of a collective neighborhood plan, with relatively evenly spaced Gingerbreads serving as potential community anchors for intervention efforts" (GSAPP 2016, 36). The opportunity for cultural and educational institutions to incorporate the rich Haitian heritage represented through the Gingerbreads and within the Gingerbread neighborhood offer the opportunity to creatively integrate the arts and cultural projects to boost heritage accessibility and community resilience. The potential economic and social benefits of creative placemaking projects within Pacot can have influence throughout Port-au-Prince through improved community development planning.

When thinking about types of creative placemaking interventions, three typologies have relevance to Pacot and Gingerbread-owner or -occupied educational and cultural institutions:

- physical improvements,
- aesthetics, and
- programming.

These types of interventions can be applied to Gingerbreads and their urban context. This studio sought to focus on identifying relevant aspects of successful placemaking projects elsewhere in Haiti and abroad, in order to provide an array of options that could address certain community-defined goals, using data collected in both 2015 and 2017 as a reference for option relevancy.

This studio organized some of the aspects of creative placemaking in the following matrix:

	Creative Placemaking Interventions			
Place	Physical improvements Aesthetics		Programming	
Gingerbread houses	Gingerbread restoration	Paint Gingerbreads	Community activities art exhibitions performances emphasis on heritage, etc.	
Gingerbread lots	Lot restoration Gathering space creation	Paint interior walls Art installations Gardens	Community activities art exhibitions performances emphasis on heritage, etc.	
Streetscape/ Vacant space	Gathering space creation Wall to fence conversion increased light	Wall murals Wall to fence conversion increased light	Community activities art exhibitions performances emphasis on heritage, etc.	

Physical Improvements

One of the major ways in which creative placemaking can take form is through physical improvements to Gingerbreads and their urban context. Physical improvements encompass restoration, new construction, creative design or any other physical improvement meant to foster a better understanding of place.

Case Study: Villa Rosa

Already afoot in Port-au-Prince is Cocread's Villa Rosa urban development project. Cocread teamed up with Favela Painting Foundation to focus on a dense .2-square-mile neighborhood called Villa Rosa, home to around 16,000 people. Over the past 30 years, the neighborhood's location along an important street leading to Petion-Ville has led it to become an essential urban center (Cocread n.d.). Cocread's project has created a start-up city for micro-entrepreneurs that integrates reconstruction, art, technology and entrepreneurship. In this project, they provide construction for proper infrastructure improvements to increase general safety and livability. The neighborhood was devastated in the 2010 earthquake, as most of the dense concrete structures collapsed. The reconstruction efforts combined with creative placemaking interventions helped the

community recover, making an incentive for foreign investors to invest money into projects and in return stimulating the local economy through painters and artisans that create unique products. Building on the previous efforts of a European NGO operating in the neighborhood, the Favela foundation coordinated with Cocread to create a color palette for building painting to market and attract people to the neighborhood, and they are currently working to improve business profit by developing an interactive 3D software to allow customers to purchase personalized handmade products online (Cocread n.d.).

The Villa Rosa project utilizes a human-centered community development focus operating largely outside of the regulation of the government. Cocread (short for co-creating development) and cofounded by an alumna from HELP, offers an important precedent for the Gingerbread neighborhood. The Gingerbreads in their urban context offer an important position for people making their way down the mountain from communities like Petion-Ville to schools within the Gingerbread neighborhood, or through the town for work. Using Villa Rosa as an important case study, there is great opportunity to create stronger social networks, economic activity and physical improvements in the context of Gingerbread heritage.





Villa Rosa neighborhood in Port-au-Prince.

Case Study: Sitka Fine Arts Camp (Alaska)

Outside of Haiti, the Sitka Fine Arts Camp in Sitka, AK represents a strong example for physical improvements to enhance community development and further the involvement of the arts. Sitka Fine Arts Camp received \$350,000 in funding from the creative placemaking organization ArtPlace in 2012 to help build its program capacity through the continued revitalization of their campus (ArtPlace n.d. "Sitka Arts Campus"). In 2007, the 130-year-old Sheldon Jackson College in Sitka, AK closed abruptly due to large amounts of debt. Four years later, the College's Board of Trustees reached an agreement that ensured the campus' heritage of arts, science and humanities education is preserved. Part of the college campus property was sold to the Sheldon Jackson Museum. Youth Advocates of Sitka and the Sitka Sound Science Center. However, the majority of the campus, including 20 buildings and 20 acres, was given to the Sitka Fine Arts Camp, an almost 40-year old organization that is dedicated to serving Alaskan youth interested in the arts (Andreozzi 2012). Unfortunately, the buildings' mounting repairs and needed infrastructure improvements threatened the future of the camp (Haugland 2011). The National Historic Landmark campus was designed by New York Architects Ludlow and Peabody in 1910, and served as character defining architecture for the small town of Sitka, Alaska (Sitka Sound Science Center). The opportunity in 2011 to move permanently to the Sheldon Jackson Campus offered a place to establish long-term community connections and placemaking within the context of Sitka's historic built environment.

(Left) Sitka Fine Arts Camp Historic Restoration Interns working on North Pacific Hall in the summer of 2015. The internship takes college students and interested individuals from around the country and brings them to Sitka to work on historic restoration projects for their building with the added experience of living in Alaska for the summer. The camp hosts the interns for free while simultaneously benefiting from their free labor services. (Right) The Sitka Seafood Festival, pictured here, is held on the lawn of the Sheldon Jackson Campus each August.





Through community partnerships and 25,000 volunteer hours, the campus was readied for the summer 2011 camp season. The community revitalization of the campus, despite poor support of city government officials, highlighted a special opportunity for Sitkans to improve distinct high-quality educational efforts (Olson 2012). ArtPlace funded building rehabilitation for the winter months, including heating and insulation, so that the camp buildings can continue to serve as community space throughout the entire year. It also enables the camp to focus on its relationships to the community of Sitka and across Alaska through creative programming. Since their funding, the camp has created enough space to provide homes to other community institutions and other arts organizations (Andreozzi 2013). According to the camp's director Roger Schmidt, "arts and cultural resources strengthen economies in ways that job creation alone cannot" (Schmidt 2013). The revitalization of a historic campus to enable arts and cultural resources a place to deeply root themselves within a community ensures longevity and sustainability accompanied by economic development and stronger sense community pride in place.

Case Study: Artspace (Minnesota)

Another example of a successful physical intervention is Artspace's revenue generating adaptations. Artspace is a Minnesota-based non-profit real estate development firm that uses revenue generating adaptation of old buildings and contributes to creative placemaking through creating spaces within their projects for cultural and arts engagement of local communities. Founded in 1979 as an advocate for artist space needs, they became a real estate developer over the course of a few decades without losing their advocacy roots. Artspace provides property development, asset management, and consulting services, and primarily works with adaptive reuse of old buildings. In order to retain affordability and provide maintenance, they use the revenues from rental property to provide for common area improvements and building upgrades, and provide communities and cultural organizations with information and advice for how to maximize their existing building stock for affordable arts and culture oriented uses (Artspace n.d.).

One of the most notable projects in their portfolio is El Barrio's Artspace PS109 on East 99th St in East Harlem in New York City. Completed in 2015, Artspace teamed up with local housing-rights advocacy group, El Barrio's Operation Fightback, in order to create 89 affordable live/work units for artists and their families. In addition to the 89 units, 10,000 square feet of space for local arts organization was made available through the development project, including space for El Taller Latino Americano, a cultural language and art education group (Lefevre 2016). The revenue generated from income will help ensure the longevity of the school, and provide necessary funds for the maintenance and improvements to the community space provided.



El Barrio's Artspace PS 109 in New York City.

In terms of both the Sitka Fine Arts Camp and El Barrio's Artspace case studies and their relevance to Haiti, they represent examples of successful adaptations of historic buildings directed toward community development efforts, which is a concept that can easily be applied to the Gingerbreads. The glaring issue with existing Gingerbreads in Pacot is maintenance and upkeep. These successful international examples show the ability for restoration and adaptation of Gingerbreads physically to be a tool for creative placemaking and successful community-oriented planning through creative space.

Physical improvements do not have to be limited to the Gingerbread houses themselves. Many of the Gingerbreads in Pacot reside on large lots with ample empty space for infill physical improvements. Another ArtPlace Project, the Uniontown Creativity Center in Uniontown, WA, targets community gathering space within and around a historic barn. Funded by ArtPlace with \$362,300, the Uniontown Creativity Center was able to expand their facilities and build upon 20 years of volunteer work to create exhibition, community, and artist spaces in an old dairy barn in historic Uniontown in Southeast Washington. Since the barn's rehabilitation in 2006 the barn's programming has expanded to include an outdoor amphitheater and an expansion with more artist residences, community kitchen, and restroom facilities. A 2011 grant from the NEA allowed for architectural/landscaping design for the entryways from the highways for more public art installations (Artplace 2013).

Public Spaces

Designing spaces for people beyond Gingerbreads and their lots is an important channel that can help create a better streetscape experience and community environment. Currently Pacot's high walls and lack of street activity creates dead space for community interactions and overwhelming boundaries between public and private space. In order to determine which community interactions would be most viable, it is important to engage with people using the streets in order to integrate these activities into public spaces in the neighborhood.

Any public space within a community can be seen as space for positive community engagement if the space provides scope for improvisation—the freedom to use the space beyond its rigid conceived purpose. Community-led initiatives have been a success in various placemaking concepts around the world, offering examples to help influence interactions between the Gingerbread neighborhood community.

Case Study: BenchesCollective, Amsterdam

BenchesCollective in Amsterdam encourages people to put benches outside their home creating small, yet significant places of interaction for the residents of the neighborhood (Reede 2017). Participants who added benches advertised BenchesCollective on community boards by adding flyers and inviting neighbors over for an informal gathering over coffee, tea or wine. Today, the number of benches exceeds 1,500 as this idea has caught on dramatically.

This is a viable example in the context of Pacot as it encourages people to break the notion of separation and physical isolation fostered by the massy wall facades and make use of streetscapes. Institutions like FOKAL can help in the promotion of this idea within the community and develop advertising mechanisms for interested residents who wish to participate in such a neighborhood program. This is a short-term, economical and quick-to-implement scheme which can be pioneered in Pacot, setting a strong example for neighborhood interaction here and in Port-au-Prince.

Case Study: Roest, Amsterdam

Roest, Amsterdam is an organization that works to reuse abandoned buildings at low costs and by self financing mechanisms like renting to weekend cook outs, food trucks and flea markets (Modder 2017). Small vacant areas within the precincts of such abandoned structures were made into inland city 'beaches' (sand accumulated in small patches of land). These city 'beaches' in Amsterdam are a huge success today.

Such a system presents a good precedent when considering the potential of the underused Gingerbread premises to incorporate the culture of Haiti—music, dance, religion, etc. Self-financing mechanisms can be explored here too, paving way for new forms of entrepreneurship ventures and opening up a parallel stream of possible revenue generation.

Providing opportunities for interactions by reinventing spaces within accessible Gingerbread premises could act as epicenters where social segregation disappears, and bring together different sectors of the community in a distinctive manner.

Sometimes, a space just needs to become more hospitable for people to derive maximum benefits from it. Introducing such simple interventions in Pacot on institutional campuses and courtyards within Gingerbreads can act as a crucial catalyst to the creative placemaking efforts.

Community stewardship programs can help light up an entire Gingerbread network, particularly if they are able to capitalize on FOKAL's existing relationship with Concepteurs Lumiere Sans Frontieres, working to actualize the lighting corridors proposed in the 2015 report. Small investments on the part of the residents of the community can help generate a movement and take the issue of the safety of their streets and thoroughfares of Pacot in their own hands.

Case Study: Seating for Socialization, Hong Kong

Another example of creating interactive spaces is The Seating for Socialization movement in Hong Kong, an organization rapidly changing the dynamics of the ways people use plazas in Hong Kong. Simple and inexpensive one-cubic-meter LED cubes were put up in a hardly used plaza as a space for community collaboration (Rossini 2017). These cubes introduced small modules of seating—attractive, portable, easy to carry. Being cost-effective due to the capability to mass produce these, losses due to theft were negated. People of all age groups made use of these cubes—the lights attracted children, young adults who could catch a break post work, elderly who could sit and gaze at the streets, tourists were spotted here interacting with locals—this intervention caught everyone's attention and interest very soon.

Case Study: Lola Lik, Amsterdam

Lola Lik in Amsterdam is a grassroots organization that provides efficient and economical lighting systems to abandoned infrastructure, making the structure and its precincts inviting and safe (Van Dommelen, 2017). Lighting has been sighted as an important hurdle toward bridging the gap in society. The 2015 studio report proposed more lighting in Pacot, however in order to make it happen, the neighborhood needs an innovative and cost-effective spin to this problem.

Aesthetics

In addition to physical improvements, aesthetically-oriented interventions play a powerful role in solidifying the uniqueness of a place while empowering communities to take control of neighborhood themes and interpretation. Large blank walls characterize the streetscapes throughout Pacot and the larger Gingerbread neighborhood representing past insecurities, safety concerns, and disconnection of the Gingerbread houses to their urban form. These walls offer the opportunity for aesthetic improvements that unify communities through art interpretation.

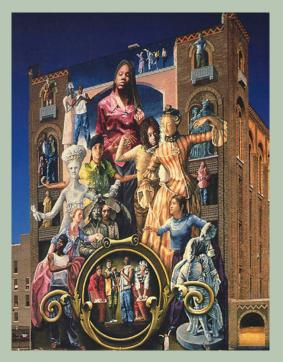
As mentioned above, Lola Lik, an Amsterdam based organization revitalized the former Bijlmerbajes prison in Amsterdam into a refugee kitchen. Repurposing this infrastructure is coupled with lighting up of the premises has not only led to the reuse of an ailing government infrastructure, but also gave the community a brand new innovative gathering space. Lola Lik has also painted several facades of these structures, making the streetscape much more inviting and amiable.

In addition to introducing a varied use within the neighborhood, the need to transform and make the facades of these previously derelict structures less alienating was recognized. Community efforts spearheaded by Lola Lik emerged where people volunteered to step out of the confines of their homes and partner with each other to color and brighten up the facades of such structures. Pacot needs more of such grassroots organizing to pioneer such volunteer community efforts—small efforts amounting to a big change in society. The existing educational and cultural network can strengthen such initiatives.

Case Study: Mural Arts of Philadelphia

Within the US, Mural Arts of Philadelphia demonstrates a successful project that has revitalized neighborhoods in Philadelphia for over 30 years. Focusing on North Philadelphia, a neighborhood characterized by violence and safety concerns, Mural Arts seeks to foster community support through employment, volunteering, and partnerships to create public murals to help the neighborhood work through their troubled past. Beginning in 1984 with an artist named Jane Golden, the organization reached out to graffiti writers "to redirect their energies into constructive public art arts projects" (Mural Arts Philadelphia n.d. "History"). Mural Arts' mission is "to transform places, individuals, communities and institutions" through works of art, using artists as actors to stimulate dialogue about local issues and create connections and understanding.

After their first twenty years, they transformed 2,500 walls throughout Philadelphia utilizing their model of artist-neighborhood collaboration in concert. One of the main themes that has perpetuated a lot of the murals is the theme of crime and how that has played a role in the history of various Philadelphia neighborhoods. Projects often involve inmates from local prisons, in order to include them as members of the community. Jane Golden, the director of Mural Arts, explained that "it's important that the murals are done. It's important that the murals are here. And it's important that the murals have this particular subject because this is a neighborhood where many people I know have



Common Threads, created by Mural Arts of Philadelphia, depicts real, contemporary young people imitating postures of historical figurines.

children who are dead and children who are incarcerated. They see all sides of the issue" (NPR 2004) Their process heavily involves community dialogue and partnerships in order to engage underrepresented voices in the process to effectively create art that focuses on issues of the current community, especially dealing with community healing over past and current traumas.

Although there are stark differences in past and present narratives of the Gingerbread neighborhood and North Philadelphia, Mural Arts offers important guidance for creative placemaking through the use of blank space for community interaction and interpretation. The existence of a number of educational and cultural institutions within the Gingerbread neighborhood occupying 12 percent of Gingerbreads offers an enormous opportunity for community cooperation for activating blank space aesthetically. Within the Pacot neighborhood specifically, most of the walls were observably medium to high in height with a very small disparate low wall area, offering tremendous amounts of space for community interpretation and unification through public art. Learning from Mural Arts, their approach through community engagement and subsequent interpretation fosters and strengthens connections between people and institutions on a neighborhood scale.

Programming

Finally, the most flexible creative placemaking intervention stems from a human-centric ability to create programming that actively engages communities in the arts and culture, a key tool for fostering social cohesion and community resilience.

Case Study: Hinge Arts

Hinge Arts at the Kirkbride in Fergus Falls, MN, is a successful example of arts programming that includes an artist residency program that engages a vacant hospital in various art projects that focus on the past, present, and future of the building. Fergus Falls, MN, home to a community of around 13,000 people, is home to the former Fergus Falls State Hospital, a Kirkbride Hospital that has sat vacant since 2006. Hinge Arts at the Kirkbride provides art projects within the vacant hospital that explore themes such as transition, connection, and innovation, all while operating under a larger theme of "unhinged" relating to mental illness. These projects all engage the historic vacant hospital that is a large part of the community's built heritage, and engages in both historical and community-led interpretation through art. Artists live in an adjacent former nurses' dormitory that was renovated for apartments, while using the hospital as an exhibition space and attraction for the community. In September, the annual Kirkbride Arts and History weekend draws outside visitors to the community, increasing economic activity (ArtPlace n.d. "Hinge Arts at the Kirkbride.").



The Fergus Falls State Hospital in 1915.

Programming that engages Gingerbreads without costly and extensive restorations can foster community support and contribute to neighborhood-scale development and heritage preservation. The Kirkbride Hospital uses the space as an arts exhibition space that focuses on themes rooted in the building's past, and could offer interesting creative storytelling opportunities, like of Gingerbread history through its visible decay. Targeting this type of model toward a vacant Gingerbread in need of restoration, funding could help organically evolve the way people interact with the Gingerbread, making more deeply ingrained institutional activity involved with Gingerbread use over a long period of time.

There is demonstrated interest in Gingerbread use toward institutional programming. Of the 20 surveyed cultural and educational institutions that own or occupy Gingerbreads, 13 stated that their Gingerbread was very important to their programming, while the other seven stated it was of some or occasional importance. With that being said, only five said they had success soliciting community support or interest for their institution, and ten had not used them at all. This shows the potential for more robust use of Gingerbreads to solicit community support or interest in institutional Gingerbreads, especially given the importance the Gingerbreads hold in the eyes of their owners. In addition to that, lack of connection between various Gingerbread owned or occupied educational and cultural institutions provides a broader opportunity for interinstitutional programming that engages the Gingerbreads.

Case Study: Bogota Mural Painting

Another successful programming project from Bogota, Colombia held a 1400 volunteer-strong community stewardship day financed by Citibank. People joined together to revive the historic center of the city through a collective mural painting activity that was aided by support from the District Institute of Cultural Heritage, an entity of the Ministry of Culture, Recreation and Sports of Colombia ("The days of recovery of public space continue"). This could be incorporated into projects involving murals in Pacot as a way of combining stewardship programming and aesthetic and interpretive improvements.

Efforts are already afoot in Haiti for arts programming. The Art Creation Foundation for Children is pioneering education for the poorer sections of the population in Haiti as well as encouraging art and craft skills within these children. Youth engagement programs in school curriculums as well as pushing for co-curricular activities help students broaden their learning horizon and contribute in their own unique way toward a positive change in their community (Art Creation Foundation for Children 2017).

Neighborhoods around the world are encountering problems in their urban settlements involving the social spatial relationships between built heritage and wider groups of populations. The Gingerbreads' location on the Port-au-Prince hillside between informal settlements create an opportunity for more inclusive social integration through creative placemaking interventions. The flexible examples of physical improvements, aesthetic, and programming provide important feasible precedents for the unique planning situation afoot in Haiti currently. Arts and culture incorporated with community engagement offer the opportunity to preserve Haiti's rich built heritage, foster community resilience, and address concerns over safety and mistrust.

Financing Tools.

One of the largest challenges facing adaptive reuse of Gingerbreads is the economic viability of the restoration process. The costs of restoration and maintenance are significant, and existing cultural and educational institutions must prioritize their available funding to their own institutional mission. Therefore, the need for establishing financial incentives for maintaining and restoring Gingerbreads is greatly demonstrated. This studio sought to cast a wide net of real estate financing tools to identify options that would best fit in the context of the Port-au-Prince. Tools were compared by function, actors, scale, and time frames, and analyzed for feasibility and relation to this studio's main actors FOKAL and HELP. These findings are summarized in the following matrices; the tools colored red were deemed infeasible and the tools colored green were pursued:

Tool	How it works	Where the money comes from	Who spends and manages the money	Typical amount of money	Typical time frames
Diaspora Bonds	Government bonds that specifically target substantial emigrant groups outside the home country. Expatriates may be more likely to overlook financial shortcomings of their home country and accept returns lower than those on the open market	Emigrants from the home country	The homes country's government. Interest paid by government	Low interest rates	Bond operates over long time frame
Community Bonds	A bond that provides a social or community-based benefit. Bond issuers are either non-profits or charitable organizations and participation is aimed at locals and community members.	Individuals, community groups	Bond issuring non-profit organization. Interest paid by non-profit	Intended to be small, accessible investments; low to modest interest rates	short time frames for individual project completion
Public-Private Partnerships	A partnership where private companies collaborate with governments to provide funding or operation of public services. Increasingly, nongovernmental organizations and community groups are involved as additional partners. Intention to share risk and responsibility, bring capital to governments and delivery public services when governments have limited capacity		Depends on the terms of the project. Parterns intentionally share risk and responsibility	Typically large amounts in order to undertake the large projects	time frames vary between multi-year projects and decades-long leases
Social Impact Bonds	A type of public-private partnership to achieve specific, measurable social outcomes. Governments contract with project sponsors and intended service providers, and private investors provide up-front capital to the service provider. If the outcome is achieved, the government pays back the initial amount and interest. If the outcome is not achieved, the government does not pay and the project sponsor and investors bear the financial burden.	Private investors	Government and contractors. Government repays the bond and accrued interest if the outcome is achieved	Varies, though amounts intended to be very large (millions)	Several years of monitoring outcomes
Development Impact Bonds	A variation of a Social Impact Bond with the goal to achieve specific, measurable social outcomes. A third party funder, usually a development aid agency or philanthropic foundation, is responsible for paying if the outcome is achieved, instead of the government.	Private investors	Aid agency or foundation repays the bond and accrued interest if the outcome is achieved	Varies, though amounts intended to be very large (millions)	Several years of monitoring outcomes
Revolving loan funds	A revolving loan fund is a pool of money from which loans are made. The repayment of loans and interest helps to fund future loans. RLFs frequently have a theme or mission, or operate within a designated area.	Some sort of startup capital to begin. Once the fund gets going, profits comes from the interest paid on loans.	Loan applicants can be individuals or businesses/collectives. Loan recipients spend the money and pay the interest on the loan.	Smaller loans - typically between \$2,000 and \$10,000 - depending on capacity and intention. Interest equal to initial rate of start-up borrowed money or lower.	Timeframes in short cycles to replenish fund and continue lending
Community lending	General concept for non-traditional lenders working at a community level. One type is Savings and Internal Lending Community (SILC). SILCS are small, member-owned and member-managed savings and credit groups, particularly aimed towards low-income users with little access to conventional lending entities.	SILC members - members pay a certain amount (decided on by the SILC) at each meeting which is pooled together.	Members of the SILC can take loans out from the SILC pool. SILC loan recipient spends the money and pays the interest on the loan	Small loans. Interest rates are low and all interest is divided between SILC members at the end of the lending cycle.	Very short time frames - usually no more than a year.
Revenue generating adaptations	Redevelopment of property to house an income-producing use. Income produced through renting as apartments, office space, hotels, etc.	Initial funding for adapation or acquisition from any sources (donations, government, private loans). Later funds from property income	Real estate developer or organization owning or managing the property	Depends on the size of the project, condition of building, and rental rates	Depends on the project scope - could be months or years, or very short time frame if building is already occupiable. Sustainable when property is in operation and generating income
Real estate fund	A fund to purchase properties of a specific type or mission. Investments are used to purchase buildings with a revenue- generating uses. The leases and revenue in turn provides small dividends to investors and more money to purchase additional buildings.	Individual investors, institutions, companies. The type of investor is not limited. A larger amount of initial capital can often come from a corporation, bank instituion, or government entity.	Fund manager	Typically large initial investment, with variations and flexibility in the amounts of money depending on the purchase prices of desired properties and the capacities of investors	Are intended to self- sustaining and to grow with successive property purchases and/or redevelopments
Land bank		Individual property purchasers. Property is often sold at very low costs or given to the land bank	Non-profit organization or pseudo-governmental body	Usually aquired a low prices and sold/leased with intentionally accessible rates	Typically long time frames for acquistion

Tool	Pros for FOKAL and HELP	Cons for FOKAL and HELP
Diaspora Bonds	 Relatively stable source of external investment, non-traditional investment type Capitalizes on the large Haitian diaspora community that already has high level of financial involvement with Haiti 	- Bonds adminstered by the government, therefore cannot be leveraged by either group - Low levels of trust in Haitian government undermine the whole arrangement of the bonds
Community Bonds	Bond administered by local and community-oriented non-profit Aimed specifically at community-based projects with concrete deliverables Low minimum investment to be accessible to more individuals	Depends on a community with shared interests and available amounts of capital (however small) to invest Requires management of the bond, annual payment of
Public-Private Partnerships	- Potentially brings in large corporate investors to projects	- PPPs intend to have government involvement and are complicated to arrange. Government currently has no formal involvement - Restricts amount of decision-making agency - Individual projects like Gingerbreads are too small-scale for PPP to be efficient or effective
Social Impact Bonds	- If outcome is achieved, the government repays the bond; FOKAL and HELP would not carry a financial burden - Participation as a provider of the social outcome could provide up-front capital for projects - Aims of social impact bonds are consistent with FOKAL and HELP as mission-driven institutions	- With successful outcome, the government pays which is not feasible for current Haitian government. Investors and service providers must pay if the venture fails. Lack of trust in government could undermine investment desirability - Requires a large-scale, well-articulated social outcome. Individual Gingerbread projects are too small-scale to attract investment - Bonds are complex and technicially difficult to arrange and manage, unrealistic and undesireable for the operating capacity of FOKAL and HELP
Development Impact Bonds	- Goverment does not repay the bond; financial burden is on foundation or development aid agency - Participation as a provider of the social outcome could provide up-front capital for projects - Aims of social impact bonds are consistent with FOKAL and HELP as mission-driven institutions	- Requires government involvement in outcomes. Investment still depends on investor faith in Haitian context - Requires a large-scale, well-articulated social outcome. Individual Gingerbread projects are too small-scale to attract investment - Bonds are complex and technicially difficult to arrange and manage, unrealistic and undesireable for the operating capacity of FOKAL and HELP
Revolving loan funds	- Small-scale mechanism, feasible for FOKAL management - Operates outside of government funding - Can target a specific community or target type of project, such as educational/cultural institutions - Low interest rates and smaller loan amounts for different needs - Loan program is more sustainable than a grant program and more likely to justify initial lump sum funding - Revolving loan funds already operating in Haiti, administered by NGOs	- Small loans limit project scopes and low interest rates do not increase fund as quickly - Short repayment timeframes may not be long enough for restoration projects - Success depends on the demand for funds and the ability of borrowers to repay the loan - Requires management and oversight
Community lending	- Very low interest rates and small loan amounts - Community-driven and encourage agency amongst members; coincides with FOKAL and HELP missions - Institutional management and involvement of institutions rather than individuals could generate larger loans - SILCs already operating in Haiti	- Small loans and short repayment time frames limit project scopes (not feasible for rehabilitation or construction) - Geared towards developing saving with small investments rather than funding large projects - Relies on all members repaying loans on time, more general than a revolving loan fund - Requires management and oversight
Revenue generating adaptations	- Revenue from use can be used for maintenance, improvements, or be allocated to other projects Provides a sustainable source of income - Funds are managed by building owner/manager, ensuring community values are preserved and use supports institutional mission	- Many possible adaptations (hotel, general office) are not related to institutional mission - Would require FOKAL or HELP to retain ownership of buildings and assume management responsibilities - Most Gingerbreads require a lot of investment and work, and initial development of a property would be cost- and labor-intensive - Requires a stable, income-generating tenant
Real estate fund	- Purchased buildings can operating as revenue-generating adapations, which sustains fund long-term - Can target specific building types or uses - Fund can act as a guaranteed purchaser of a building, making it easier to get traditional loans for restoration work; lowers risk for lender and borrower	- Would require FOKAL or HELP to continue to hold and purchase more property, which is not integral to their mission - Land tenure and property sales are time-consuming and costly - In the difficult lending environment, the fund's role as a secure client may not be as powerful - Requires stable revenue-generating tenants and sustained
Land bank	- Capitalizes on vacant Gingerbreads within Pacot - Could create a portfolio of useful properties for mission-consistent programming	Land tenure and property sales are time-consuming and costly. Property is usually aquired with participation of local government Would require FOKAL or HELP to hold and purchase more property, which is not integral to their mission. Would demand management and oversight, and networking with potential occupants

Research into the viability of the lending environment in Haiti and structures of property ownership, as well as the relatively smaller scale project-based financing requirements of Gingerbread restoration with relation to the viable actors involved in financing identified the most feasible options. This section explains these tools in greater detail, with illustrative case studies and considerations for their applicability to the Gingerbreads. Diaspora bonds, social impact bonds, development impact bonds, and public-private partnership were deemed ineffective tools for this studio's scope. Each depends too heavily on government involvement and operates at too large a scale for potential Gingerbread projects.

Lending Environment in Haiti

Haiti's economy since the 2010 earthquake has drastically increased its reliance on foreign assistance. Donations from the United States, private businessmen, the United Nations and other sources were pledged in the months after the earthquake in order to help the immediate needs and provide for economic stabilization. President Bill Clinton, special envoy to the UN in Haiti, along with two businessmen from Mexico and Canada each pledged \$10 million to help expand small- and medium-sized enterprises (SMEs). Before the earthquake, SMEs made up of around 80 percent of Haiti's economic output. The emphasis on small businesses is a large part of the post-quake reconstruction plan, but as of August 2010, little had been done to ensure local banks and private lenders were making investments in SMEs (The Economist 2010).

The loan lending situation in Haiti offers a number of complicated barriers and is not often the first choice when it comes to financing, especially in the housing market. According to Carl Braun, Chairman of the Board of Directors at Unibank S.A., the main constraints to housing finance are a lack of macroeconomic framework, especially with regards to the need to lower interest rates for long-term lending, high transaction costs, high taxation, slowness of the legal process, and absence of enforceable urban planning laws (Braun 2011). As of March 31, 2011, the total loans in Haiti equaled HTG 32.88 billion (USD 817 million), with housing loans representing around 8.3 percent of all loans (HTG 2.75 billion, USD 68 million). In order to increase the amount of lending potential to the housing sector, Braun argues that there needs to be lower interests rates and longer-term loans (5–9 percent and up to 30 year terms), lower transaction fees drastically, apply an absolute maximum of HTG 40,000 for taxes and fees relating specifically to housing, adjusting tax brackets, and addressing more barriers in the legal system and real estate investment framework in order to increase the amount of financing that can be used for developing housing.

Since 2011, there seems to be some promising improvements afoot. In November 2015, the (World Bank's) International Finance Corporation (IFC) and the Central Bank of Haiti (BRH) entered into an agreement that would allow U.S. dollars to be swapped for Haitian gourdes in long-term-gourde-denominated investments in the local Haitian private sector—mostly in the form of medium and small enterprises. This type of deal is meant to increase the use of the Haitian gourde. Traditionally, private sector loans in Haiti are given in the form of foreign currencies in order to avoid the foreign exchange risk and instead focus on job creation and expansion, however this deal is meant more for economic stimulation of the Haitian gourde itself. According to Charles Castel, Governor of the Central Bank, "Our aim is to support local entrepreneurs and grow the local economy, while maintaining the financial system's safety and soundness" (Haiti Libre 2015).

However, Haiti's economy is fragile, and just months before the IFC and BRH deal, the gourde had weakened by 15 percent in two months. Charles Castel cited the "scaling back of the UN Mission des Nations Unies pour la Stabilisation en Haiti" as well as higher risk perceptions in the August legislative elections (The Economist 2015). Most recently, the International Monetary

Fund (IMF) initiated a Staff-Monitored Program (SMP) beginning June 2017 through December 2017 that will address "macroeconomic stability and reforms that will generate sustainable and inclusive growth" ("United States: IMF Staff Reaches Staff-Level Agreement with Haiti on a Staff-Monitored Program" 2017). SMPs provide a flexible and informal way for IMF staff to engage with a member program, because they are not attached to a loan made by the IMF. In this case, the program will focus on increasing public investment, especially in reconstruction efforts due to the effects of Hurricane Matthew, as well as investments in health, education and social services. The BRH "will aim to protect international reserves and preserve exchange rate flexibility, while acting as necessary to contain disorderly market conditions." The SMP will require the BRH to limit monetary financing of the government deficit and attempt to keep inflation low while "maintaining an adequate flow of credit to the private sector" (MENA Report 2017). Economic projections are always in flux and changing with the actions of new governments. The current government of Jovenel Moise introduced a new tax system in October 2017, with changes that increase business taxes without any accompanying reforms to facilitate or encourage business activity. In the World Bank's recent "Doing Business" report, Haiti was ranked 181st out of 190 countries (Loop News 2017; World Bank 2018). Fluctuating economies negatively impact the feasibility of large-scale financing tools that rely on government involvement.

Because of the many players, both local and foreign, involved in Haiti's economy, there are a lot of ideas generated through many different parties involved. The idea of small and medium-sized financing has been talked about as a way of stabilizing and strengthening the economy since the earthquake in 2010, however moments like the scaling back of the UN Mission, legislative elections, and other factors have repeatedly shown how unstable the economy can be. The most recent idea of the SMP in 2017 by the IMF that will hopefully maintain a steady line of credit to the private sector is promising for this studio's purpose of identifying potential sources of financing for the preservation of the Gingerbreads in Pacot.

Given the state of conventional lending institutions in Haiti, there has been an increased focus on microfinance models as a way to give Haitians access to capital. Microfinance is an umbrella term for a type of lending that focuses small loans with low interest rates toward the poor who cannot qualify for traditional loans. Large financial institutions can engage in micro-lending, but the microfinance umbrella also includes community-based lending organizations (USAID 2011).

Land Ownership

Another challenge to restoration and reuse, impacting the consideration of certain financing tools, is the complicated system of land ownership in Haiti. In general throughout the country, it can be very difficult to determine who owns the title to a certain piece of land. Lack of a formal cadastral survey and consistent official records, as well as complicated property inheritance structures, means that any scheme to consolidate available parcels would likely need dedicated staff to find and coordinate with existing property owners. To conduct a "sale by act of genuine deed" is the most formal process through which a property is sold, surveyed, and recorded by the government. This process also offers the most legal protection against other claims to the land. However, the process is cumbersome, involving notaries, municipal governments, and coordination with the central government, in addition to incurring fees (Haiti Property Law Working Group 2012). "Sale by act of private seal" is more common, without a notary or formal recordation, but this type of agreement is less secure against future challenges. A land bank scheme in which a central entity (either public or private) manages to consolidate available underused, abandoned or foreclosed parcels and deploy them for the public good, may be possible in such a context, but it would need to be sufficiently financed and staffed to go complete these complicated transactions. Inheritance laws provide all offspring of a property owner rights to the land, which can further exacerbate complications in buying and selling land (Haiti Property Law Working Group 2012).

The difficulty of selling and purchasing land is not limited to Haiti. Issues of land tenure are prevalent throughout the Caribbean region. The formal processes in place surrounding land title registration and transference has been identified as a key area for governmental improvement by many regional Caribbean plans (Economic Commission for Latin America and the Caribbean 2017). Not only should the legal framework be well-established and understood, it should be financially and technically accessible to all citizens. Given the lack of governmental capacity, establishing tax-based incentives for heritage preservation purposes is not viable in the Haitian context.

Revolving Loan Funds

A revolving loan fund (RLF) is a pool of money from which loans are made, often under a particular theme, like green projects or entrepreneurship. The repayment of loans helps to fund future loans. RLFs require some sort of startup capital to begin with—sometimes this capital is borrowed through traditional financial lending entities, sometimes it is donated. Once the fund gets going, the pool grows from the interest paid on loans. In the US, revolving loan funds are frequently sponsored by the government, while in Haiti existing examples seem to frequently be administered by NGOs. Loan applicants can be individuals or businesses/collectives. Interest rates vary—if the initial capital was borrowed, the interest rate could be equal to the interest rate of that borrowed money. If the pool of money was not borrowed, that can help keep interest rates low. RLFs are characterized by smaller loan sizes and shorter repayment time frames. RLFs have shorter loan cycles than conventional lending, because the fund requires repayment fairly quickly in order to continue lending.

Case Study: Revolving Loan Fund for Conservation

Revolving land funds can operate for unlimited types of projects. One example of a revolving loan fund specifically for the restoration of buildings is the Landmarks Conservancy Historic Properties Fund in New York City. This RLF has operated since 1984 and has helped restore 260 buildings. Loans from the fund vary in size from \$40,000 to \$300,000 and like other RLFs, repayment of these low-interest loans help to fund future projects. The Conservancy received the initial capital for the fund as part of a deal that allowed private redevelopment of the federal Archive Building in Greenwich Village (New York Landmarks Conservancy 2017). This fund, although it operates at a scale not immediately replicable by most, indicates the possible growth and success of this type of tool. More typical US revolving loan funds have loans that range from \$2,000 and \$10,000 and have time frames under ten years.

There are many RLF's currently operating in Haiti, and they generally have lower interest rates, as well as smaller loan amounts. Some of the funds currently operating in Haiti include Entrepreneurs du Monde, Yunus Social Business, and Fonkoze/Zafèn. Of these, the Fonkoze Foundation's Zafèn fund is the highest rated on the lending site Kiva and is the largest operating in Haiti (Kiva 2016). Unfortunately, Zafèn only lends to individuals, making it less usable as a tool for cultural and educational institutions. Entrepreneurs du Monde is a revolving loan and microfinance-supporting institution already operating and manages the Carrefours Feuilles Workshops in Port-au-Prince (Entrepreneurs du Monde 2017). The workshops train craftspeople in the production of building materials (such as railings or tiles), which are then sold throughout a network of outlets spread across Port-au-Prince.

Case Study: Revolving Loan Funds in the Caribbean

Revolving loan funds for historic buildings have also been established elsewhere in the Caribbean. In Curacao, a revolving loan fund is operating by the Curaçao Monu-

ments Fund Foundation, started with initial funds from the Dutch government. The fund will subsidize 40-60 percent of the qualified restoration work (i.e. work on the historic elements of the monument, similar to qualified rehabilitation expenses in the US tax credit), and applicants can borrow the remaining amount of money from the Foundation for the revolving loan portion. A revolving loan fund is also in development in Aruba, managed by the non-profit Monumentsfund Aruba. The Monumentsfund Aruba has purchased and restored 11 historic buildings one by one and generate all of their operational funds, and the initial funds for the revolving loan fund, from rental income of their properties (Witenburg, pers. comm. 2017).



Restoration of the California Lighthouse in Aruba by Monuments Aruba.

There are many advantages to pursuing funding through a revolving loan fund in Haiti, including the existing precedents. Many existing funds are geared toward specific borrowers (for example women) or project types (small businesses, tech projects). The smaller loan amounts and short repayment time-frame can also be a disadvantage for those seeking funding for large heritage projects like a full Gingerbread restoration. However, the challenges and opportunities are largely dependent on the structure and purpose of the fund.

Community Lending

Community lending is a general term for non-traditional lenders working at a community level. In Haiti, an example of community lending are Saving and Internal Lending Communities (SILCs). SILCs are a type of small, member-owned and member-managed savings and credit groups, particularly aimed toward low-income users with little access to conventional lending entities. The model operating in Haiti was developed by Catholic Relief Services and has been supported (programmatically, not financially) by USAID. In a SILC, members contribute a certain amount of money at each meeting (to be determined by the SILC) and these contributions form a pool of money from which the SILC can give loans to members, which are repaid with low interest. Some SILCs also set aside part of the pool to be used for a "social fund" which disburses money to members in emergency situations, with no interest. The members of the SILC decide how long it will function (usually 9–12 months) and by the end of the cycle loans are repaid. The SILC can end after each cycle or choose to continue (Parker 2017).

There are many benefits associated with the formation of SILCs—they encourage agency and are community-driven; they are an accessible way for low-income households to grow their savings; and they require no foreign aid to or investment to operate. There are also characteristics of SILCs that make them an unlikely financial tool for cultural or educational institutions in Haiti. SILCs have very short repayment time frames and very small amounts; they are somewhat risky since the profit relies on all community members repaying their loans on time; more geared toward developing savings with small investments rather than funding large projects; and SILCs require significant organization and trust to operate effectively. Despite their drawbacks, SILCs provide an interesting model that could potentially be undertaken by a group of institutions and businesses rather than individuals, which could generate larger loan amounts.

Revenue Generating Adaptations

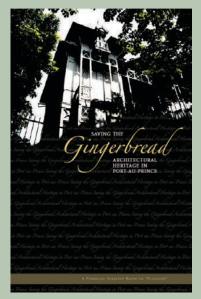
Revenue generating adaptation involves a specific reuse of a property that will produce enough revenue to provide for other funding needs. This strategy is applied broadly to the concept of rental property, whether it be apartments, office space, community space or hotels. In basic terms, developing property to be income-producing involves a developer—or any group with interest in generating revenue through real estate investment—that covers the cost of acquiring the existing building (or constructing a building), land and any work necessary to create a desirable property that will attract tenants.

Case Study: Artspace

El Barrio's Artspace PS109 could not have been funded through the revenue Artspace generates in other properties. Overall, the project cost over \$60 million, with \$52 million of that going to construction costs. 90 percent of the \$52 million was funded by federal, state and city funds, with the rest covered by private donations and grants from foundations like the Ford Foundation and the Kresge Foundation (Davidson 2015). Securing funding in general for arts and culture projects can be difficult. In the case of Artspace, they have developed enough experience to know how to successfully manage financing for real estate development, especially with up-front costs for acquisition and renovation. However, there exist barriers to the process for similar organizations that have a diverse array of business models and financing needs that are more risky to lenders and are typically smaller in size than most projects funded through private or public lending sources. The risk comes from the lack of significant studies that assess the actual economic and social impact that arts and culture projects have on communities.

The Artspace case study is a promising example in that the community and cultural aspects of the Gingerbreads can be preserved through working closely with the local community and collaborators, all while receiving income that can go toward future restoration of Gingerbreads. The demonstrated need for aid in Haiti could leverage grants and funds from philanthropic investors interested in preserving Haiti's heritage through the Gingerbreads and arts and culture projects.

Case Study: Gingerbread Hotel





The Hotel Oloffson, an early example of the adaptive reuse of a Gingerbread.

In Haiti, the strategy of developing Gingerbreads as revenue generating properties has been explored with promising findings. In his concept paper, "Saving the Gingerbread Architectural Heritage in Port-au-Prince: A Financial Strategy based on 'Flagships,'" former Finance Minister Daniel Dorsainvil argues that it is financially feasible to restore Gingerbreads with funding generated from either an office space or hotel in a "Flagship" property, assuming certain financing circumstances. Dorsainvil estimates, based on existing market data for land and restoration prices, that the acquisition, restoration and maintenance costs for an average Gingerbread is \$1.27 million. Assuming a 250 square meter building and 2,250 square meter for land, the acquisition costs will be \$125,000 for the building and \$300,000 for the land, equaling \$425,000. The restoration costs, for both land and the building, will equal \$770,000. On top of that, if ten percent of the restoration costs are allocated for house maintenance, \$77,000 per year will be required per house (Dorsainvil 2011).

Dorsainvil tests the cash flow required to support a 15-year mortgage that covers the entire estimated costs of acquisition, restoration, and maintenance at four, five, six, seven, and eight percent interest rates. He then identifies how many hotel rooms are required (with specific amounts allocated from the room rate as revenue) to support the mortgage payments, assuming 60 percent occupancy per month. There is a demonstrated need for hotel rooms in Port-au-Prince with only 155 rooms that vary from \$80 to \$200 per night, and an anticipated rise in international travels, so there is great potential to have a financially viable option through Gingerbread hotel adaptation. Dorsainvil refers to the Kordasko House (or Le Petit Trianon) in the Pacot neighborhood as a potential "Flagship" property because it is Gingerbread, obeys the aesthetic style of the Gingerbreads, and is a decent size for a hotel. He estimates that the Kordasko house can support 33 upscale hotel rooms (three of which are suites). Rooms could average around \$150 to \$200 per night, and with \$50 per room allocated to a Gingerbread fund, the fund can be used for the acquisition and restoration of three Gingerbread houses at a four percent interest rate on a 15-year mortgage, or two Gingerbread houses at the eight percent rate (Dorsainvil 2011).

Identifying a revenue generating adaptation (i.e. hotel, office space, housing, etc.) represents an ideal form of financing. The flexibility and the in-house management of funds facilitates a more efficient system and a sustainable source of financing for future Gingerbread maintenance or restoration projects. Although the flexibility and sustainability of the money acts as an advantage, obtaining up-front financing for the actual revenue generating adaptation can prove difficult. FOKAL has already endeavored on one Gingerbread restoration project with Maison Dufort, and is in the midst of a second with the Chenet house, and interest in further restoration projects is dwindling. The FOKAL-managed income producing property may be seen as a strenuous and costly project with little added value to their overall mission. Moreover, depending on the money generated in that property, restoration projects would have to be combined with other financing options, namely private loans.

Although the flexibility and sustainability of the money acts as an advantage and there is potential for receiving philanthropic funding, lending through the Central Bank of Haiti will be difficult. While Gingerbread restorations are far less expensive than typical Artspace projects, the capital needed for an extensive restoration can still be unattainable. The establishment of an incomeproducing "flagship" also may rely too heavily on hotel or office space, which may not connect with local needs.

Community Bonds

Community bonds are specific types of bonds that are intended to provide a social or community benefit and used for specific projects. They are issued by either non-profits or charitable organizations and participation is aimed at private citizens and community members. The social benefit is considered part of the bond's "return" aside from the pure monetary value from annual interest and the eventual return of the initial investment amount. The dollar amount of minimum bonds is lower than traditional government bonds so that more people have investment opportunities. Community bonds are a helpful tool when financing through traditional institutions are not possible or is undesirable (Centre for Social Innovation 2012).

Community bonds are a relatively recent social finance tool, as least in a formalized and recognized financing way. Due to the intentionally small-scale and community-base nature of these bonds, research to this point has not uncovered case studies outside of North America. However, this does not mean that a community bond model would not be effective in Haiti. The flexible, small-scale, and community-oriented structure of community bonds could be a possible option for Gingerbread projects, leveraging the existing group of educational and cultural institutions in Gingerbreads. However, the success of a community bond does rely on a cohesive group that has available capital that can be invested and agreement about collective benefit. From the organization's perspective, community bonds do require devoted time to leadership, management of the funds, education about how the bond works, marketing of the cause, and guaranteeing the bonds. Therefore, a community bond may not be a desirable tool for groups like FOKAL and HELP.

Real Estate Fund

A real estate fund is a portfolio of buildings that is gradually built over time and depends on revenue-generating adaptations to grow the fund. Usually organized by an independent financial group, the fund will have a guiding theme or purpose, like restoration. Income generated through property and investors can help purchase more properties.

Case Study: Curacao Heritage Real Estate Fund

A heritage real estate fund has recently been created in Curacao. The Curacao Financial Group has purchased one property in the Pietermaai historic district that will be leased for student housing. The model of the group is to purchase restored historic properties for revenue-generating uses. Essentially this group acts as a guaranteed client for someone wishing to restore but not retain a building and provides initial investors with an exit. Having a secure client can help the restorer to procure loans and funding to undertake the restoration. The fund operates with 40 percent equity, 60 percent debt to minimize the risk for other institutional or private investors. The debt comes from bank loans and listing bonds on the Dutch security exchange. By listing the bonds on the exchange they hope to open up the investment to anyone (with a minimum amount) (Bhojawi 2017). Curacao Financial Group hopes to incentivize individuals and other groups to participate in their fund. Part of their hope is that investors will be drawn to use and visit buildings that they partially "own" through their investment, further encouraging the success of the venture.



The Penha Building in the Pietermaai Historic District.

The model is feasible in Haiti, particularly because it can operate outside of a national bank or government structure. A real estate fund could purchase restored Gingerbreads for the purpose of generating income through rental property, and possibly incentivize restoration with the guarantee of a purchase after project completion. However, FOKAL, HELP, or other educational and cultural institutions are unlikely to establish such a fund as individual actors. FOKAL does not wish to invest further efforts into becoming a Gingerbread restoring organization, and if they were to establish a real estate fund, they would have to invest significant time and money into property management and management of the fund, detracting from their overarching mission.

Land Bank

The term land bank can refer to several different types of community development tool:

- A nonprofit or pseudo governmental body that acquires abandoned properties to be redeveloped for a community use
- An agricultural land bank, where land is acquired for an agricultural community use
- The purchasing of large estates, which are then parceled out for more affordable housing

The scholarship and existing models regarding the first type of land bank are primarily U.S.-based. In American contexts, the first type of land bank can be a nonprofit group or entity created by local government reclaiming abandoned properties at the neighborhood level. The bank acquires abandoned properties from the municipality and sells them to private owners who plan to redevelop the property for community benefit. This scheme allows the municipality to get the property back on the tax roll, and allows the community to have some say in how the property is used. In other international cases of land banking, the public sector has usually been the organizing body with affordable housing outcomes in mind and the targeted land is vacant land rather than abandoned existing properties. One such example is the Metro Vivienda land banking program in Bogota, Colombia where the municipal government purchases land and sells to local developers to construct low-income housing (Andrews and Childress 2015). Land tends to be on the peripheries of the city and undeveloped, contrary to the Gingerbread context.

Because Pacot is a residential neighborhood, the agricultural land bank model is not applicable. The third type of land bank, in which large estates are purchased and parceled out for affordable housing, has potential to be applied to Haitian Gingerbreads, which typically sit on larger lots. In this model, the land bank also serves as a mortgaging body—the purchaser is responsible for a down-payment, and future mortgage payments are paid to the land bank (eliminating the need for a formal financial body to approve a loan). The Penny Foundation, with support from USAID, has operated a land bank like this in Guatemala, which purchases large properties that are then subdivided into small farmsteads—although the results have been mixed (Shearer, Lastarria-Cornhiel, Mesbah 1991).





Abandoned and vacant Gingerbread properties present potential land bank opportunities in theory, but the complexity of property transfers in Haiti would make this difficult to realize.

In the context of the Haitian Gingerbreads, a non-governmental body is likely to have more success than a government or quasi-governmental group due to the already taxed capacity of the government. Pursuing a land bank in Pacot has the opportunity to capitalize on vacant Gingerbreads. However, the buying and selling of real estate is complicated and time-consuming, as previously described. The aggregation of Gingerbreads or the subdivision of lots could be prohibitively difficult. A bank's acquisition of vacant Gingerbreads is not viable in Haiti. Without this factor, identifying properties and owners and taking on market-rate expenses shifts to the managing non-profit. Significant financing and staff would be required to navigate through the complex property owner relationships associated with vacant Gingerbreads in order for the acquisition, making it an unreasonable option for FOKAL or HELP.

Findings

Because of the poor reliability of government-managed financing, the option of having an NGO, specifically FOKAL, manage financing tools for Gingerbread restoration is most feasible. FOKAL has restored one Gingerbread for a cultural and educational center for their own use at Maison Dufort, and is currently working to restore Maison Chenet. Their hope is that these projects work as successful models for Gingerbread restoration that helps to spur more interest in adaptively reusing Gingerbreads.

The multiple financing options available for Gingerbread maintenance and restoration prove promising for future efforts in their overall preservation, however in terms of FOKAL establishing and fostering financial incentives, there is no "silver bullet" for an overall successful financing option. The options either would not produce enough money for a full restoration project, or would require too much management time on behalf of FOKAL to make it worthwhile. Nevertheless, there is hope in exploring ways in which social and economic relationships can be improved in order to enable these types of financing options in the future.

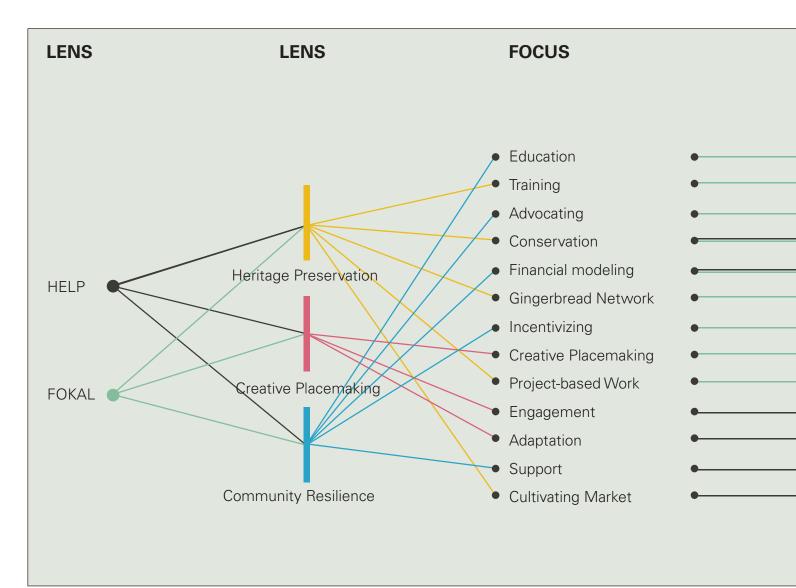




Scenario Planning Analysis.

Scenario planning is a key methodological tool in the Port-au-Prince context. The political, economic, and environmental instability pose immense challenges to any public projects and make long-term preservation planning difficult. So while there is general consensus around the significance of Gingerbread architecture, the uncertainty in Haiti is not conducive to strategic planning. Instead, the team used scenario planning to examine the wide variety of possibilities for Gingerbreads in Port-au-Prince.

Scenario planning is a way to think about the future (Hindle 2008). Scenario planning is different from strategic planning in that strategic planning reveals different ways to achieve an end goal and scenario planning explores options that achieve a variety of goals in different future scenarios the actions may create. There is an element of subjectivity in this process. In an article in Harvard Business Review 1985, it was stated that "Scenarios deal with two worlds; the world of facts and the world of perceptions. They explore for facts but they aim at perceptions inside the heads of decision-makers. Their purpose is to gather and transform information of strategic significance into fresh perceptions" (Wack 1985).



After conducting and analyzing the research, the team used this data to develop different scenarios that could be applied to the studio's objects of study to reach different goals. This was considered through three lenses: heritage preservation, creative placemaking, and community resilience and how these scenarios would function under the two organizations: FOKAL and HELP which are highly active in all three areas in Haiti. The diagram below is a simplified version of a larger scenario matrix.

Through the three lenses mentioned above, different foci were developed, which further led to different scenarios. The capacity for FOKAL and/or HELP to implement these scenarios was considered, along with their strengths and weaknesses. The team then focused on the most viable scenarios to develop into proposals, and necessarily moved away from scenarios that could not be applied to the studio's didactic clients. As the political and economic context keep changing, some of the scenarios might be revisited in the future.

	RECOMMENDATION	
•	Ownership & Operation (FOKAL)	•
•	Conservation Skills (FOKAL)	•
•	Regulation, Property rights-based incentives (FOKAL)	•
•	Restoration, Deconstruction/Reconstruction, Construction (FOKAL, HELP)	•
•	Incentives (FOKAL) Strategy for Ed-Cult Institutions (HELP)	•
•	Owners, Owners/lessees (FOKAL)	•
•	Maintenance, Creation of Project Fund (FOKAL)	•
•	Infrastructure Improvement, Streetscape as thoroughfare, Vacant Lots (FOKAL)	•
	Heritage Projects (FOKAL)	
	Neighborhood Institution, Multi-use Institution (HELP)	
	Multi-use HELP campus (HELP)	
	Owners/Volunteers (HELP)	





Proposals.

The following proposals emerged directly from the scenario planning analysis. They were then grouped into three categories—networked capacities, streetscape experience, and heritage programming.

Networked Capacities.

Educational/Cultural Institutions Network

Representatives of HELP, FOKAL, and MASS Design Group identified connecting institutions, individuals, and information as key needs for the stewardship of Gingerbreads. After the 2010 earthquake, FOKAL attempted to organize an association of Gingerbread owners, thinking that such a network would allow owners to share challenges and build capacity. These attempts failed at the time because the disparity in geography, use, and owner and Gingerbread types posed insurmountable challenges. Additionally, conversations with HELP students and interviews with experts in the fields of heritage and planning revealed a certain resistance among owners around "being told what to do" with their property, especially without financial support. With these factors in mind, a new effort that targets Gingerbread users of a particular type and includes an incentive of some kind might be more successful.







The many educational and cultural Gingerbreads within the study area.

A network of schools and cultural institutions in Gingerbreads presents strong potential. As previously established, educational/cultural use represents a significant portion of overall Gingerbread use in the study area, and private schools in Port-au-Prince are already loosely associated through the Association of Private Schools. Although these institutions vary greatly and include preschools, elementary through high schools, universities and professional schools, the field surveys revealed that they share many of the same challenges. These institutions tend to be strapped for funding, time, and resources. In the survey, all respondents said their Gingerbread was at least "of some or occasional" importance, and ten of the 17 said it was "very important." But eight considered material or structural deterioration a key challenge, and another eight cited high cost of materials, with significant overlap between the two.

If the network offered an incentive to join, particularly incentives to aid in maintenance, this could persuade hesitant property owners. Possible incentives could include access to:

- A paint/supplies fund
- A materials bank
- Small funding for stabilization/preservation projects
- Skill-sharing instruction from the Chenet Team

Thus, the network could be a stepping stone to the following incentive-based proposals.

Gingerbread Paint Fund

The experience of the Academie Haitienne des Arts Culinaire provides an example of the power of paint to reanimate a neglected building. Since painting their Gingerbread, which they share with a dance school, the Académie has noticed an uptick in interested prospective students and has energized their current student body. The colorful paint job has also allowed them to easily direct people to their location, particularly for their public functions, such as their cooking competitions and annual holiday party. Previously, the settlement of Jalousie also successfully deployed \$1.4 million of federal money from the Martelly administration to repaint the neighborhood (Daniel 2013).

Drawing on this example, it follows that access to paint could provide a similar benefit to other educational and cultural institutions operating in Gingerbreads, which could be realized through a small-scale paint fund. Access to a paint fund could spur further interest in maintaining buildings and could draw attention to Gingerbreads throughout the neighborhood. Furthermore, access to a paint fund would make a promising value add to any proposed association of educational and cultural institutions operating out of Gingerbreads. FOKAL makes an ideal actor for this scenario because of its desire to work with Gingerbreads in a way that does not involve the time-consuming and expensive process of purchasing and rehabilitating more properties. Although they are an NGO and do not have unlimited resources, FOKAL is connected to a stable source of funding through the Open Society. If this paint fund were connected to a network of educational and cultural Gingerbreads, this would fall squarely under the Open Society's mission to support quality education.

A paint fund would be a small-scale financing mechanism that could be feasibly and reasonably managed by FOKAL. The fund could be structured as a revolving loan fund rather than a grant program, making an easier case for FOKAL and Open Society to provide an initial lump sum to start the fund. A loan may not prove as effective an incentive as a grant from the perspective of the educational and cultural institutions, but return of funds and small amounts of interest would make the fund sustainable.





The simple act of painting the Gingerbread at the Academie Haitienne des Arts Culinaire, shown in 2012 and 2017, has had a positive impact on the school.

Maintenance and Stabilization Revolving Loan Fund

Paint admittedly is only surface-level work, and does not address potential structural problems, but it could represent a powerful motivator. If the paint fund proves to be viable and successful, it could be expanded to a larger supply and maintenance fund for members of the Gingerbread network. Managing the fund would allow FOKAL to further their interests in sparking the efforts to restore more Gingerbreads while avoiding the overbearing details of the actual restoration project. Small amounts would be lent to educational and cultural institutions for restoration projects, and their repayment would refill loan coffers for future lending opportunities. Most revolving loan funds lend to smaller projects (between \$2,000-\$10,000), which would be feasible for maintenance-oriented projects. Most institutional tuition income streams would potentially allow for repayment of these loans back to the revolving loan fund, although there is risk in assessing the financial situations of some institutions in need that have considerable debt. By organizing cultural and educational institutions who own or occupy Gingerbreads to join FOKAL for the broader mission to preserve Gingerbreads, the revolving loan fund would act as a community lending source for maintenance and small-scale restoration projects. As a type of community lending, a revolving loan fund operates at a very local and concentrated level, dependent upon its members rather than a government or national bank.

Stabilization work, like at Maison Gauthier (below right), and larger projects could eventually be funded through a revolving loan fund.





Materials Bank

A materials bank is essentially a stockpile of materials that people can purchase. The bank stores materials, often obtained through salvage or deconstruction projects, and then sells to those who need them, often at lower price than one could find at a big-box store or other materials store/facility. A materials bank is viable and needed in the context of Port-Au-Prince Gingerbreads primarily because there is a lack of easily attainable materials for Gingerbread maintenance and restoration. While Haiti historically had a wealth of forests across the island, today deforestation has made timber expensive, and mostly imported.

Also adding to this proposal's potential viability is the fact that many Gingerbreads are being demolished. There is no regulation of these buildings and the high cost of restoration means that many of the buildings are taken down. As of 2015, 59 Gingerbreads had been demolished in the study area since 2010. When the buildings are demolished, the materials are frequently salvaged and sold privately, because there is no specific outlet for the salvaged materials. This is what occurred when the Gingerbread belonging to College Mixte Lamartinière was





demolished. The school was able to sell their salvage material to a private buyer and made enough to pay off 60 percent of the demolition costs. This example indicates that there may be a market for salvaged materials from and for Gingerbreads. Currently, there are general material markets, but no specific place for salvaged Gingerbread materials. This proposal would attempt to fill this gap.

(Left) Demolished Gingerbread at College Mixte Lamartinière; (Right) Wood material storage at Maison Chenet for the ongoing restoration.

The materials bank could be operated by the Chenet team, with initial help and support from FOKAL. This restoration team of builders and artisans was trained by master craftsmen from the Institut de Patrimoine Wallon (IPW) during the restoration of Maison Dufort, and the nearly completed work at Maison Chenet. The team has gradually become its own independent small business, separate from FOKAL, and aspires to carry out restoration projects at other houses following the completion of Maison Chenet. The training of this team addressed one of the main barriers to preserving Gingerbreads, but the future of the group is unclear because the team, as an independent entity, is not yet a self-sustaining operation.

Both Maison Dufort and Maison Chenet have large lots providing ample space for the stockpiling of materials, and the Chenet team would benefit from running the bank because it would give them another potential source of income and could allow them to access materials more easily for projects. The team already has experience storing, labeling, and managing materials from their work on the deconstruction and reconstruction of the Dufort House, so they would be continuing to use skills that they have already developed.

FOKAL should help and support the Chenet team in this endeavor at first, as a way to further ensure the success of their project. In order for a materials bank to work, a market for skills and materials would need to be fostered, since in Port-au-Prince there is a general lack of knowledge and skills about restoration projects, in addition to there being a lack of easily attainable materials. FOKAL's continued programmatic support of the Chenet team through the development of a materials bank would continue to help develop this market.

Funding for Creative Placemaking

Once established, the network of Gingerbread institutions should apply for ArtPlace funding for creative placemaking projects involved with the institutions as a whole. FOKAL and HELP as members of the Gingerbread institutional network can aid in applying for the US-based funding through their U.S. 501(c)(3) non-profit status. The funds would ultimately be managed by the network, creating financial incentive to join the network, as well as eliminate competition for

resources between the institutions. This also opens up the possibility for more unifying programs and social engagement as institutions lack the funding for community programming beyond their own mission.

International arts-based funding offers flexible opportunities for arts-focused community development projects that support heritage preservation, creative placemaking, and community resilience. The focus on arts as a way of engaging communities in broader themes of heritage creates positive change through development of dilapidated parts of the built environment, and has successfully been replicated in projects around the world.

ArtPlace America is a ten-year collaborative project supported by a group of 14 foundations, eight US federal agencies, and six financial institutions works to directly integrate creative placemaking into communities throughout the United States (Bennett 2014). ArtPlace approaches community development from a holistic angle, identifying five types of stakeholders (Civic, Social & Faith, Commercial, Governmental, Nonprofit, and Philanthropy) and ten sectors that make up a majority of work taking place in communities across the country. It is their goal to demonstrate the unique value that arts and culture can bring to the intersection of the identified stakeholders and respective work sectors (ArtPlace). ArtPlace projects differ from other creative placemaking efforts in that specific community-articulated changes are identified prior to funding with success measured through the arts-based intervention to achieve said change (Markusen and Gadwa Nicodemus 2014). Rather than focusing on data-lacking indicators of success, this approach defines success differently to frame community projects' success in terms of the community's own aspirations. This ensures long-term sustainability of goal-oriented community development planning that can be managed on varying small neighborhood scales.

ArtPlace America has successfully funded historic preservation and arts-community based projects throughout the United States. Aforementioned, the successful project in Sitka, AK for the Sheldon Jackson Campus and the Sitka Fine Arts Camp was awarded \$350,000 for the year (2012) for building maintenance and repair, in order to create infrastructure to support community arts programming. Also, the Uniontown Creativity Center received \$362,300 and the Hinge Arts at the Kirkbride received \$100,000.

While the amount of ArtPlace funding varies from project to project, the range of amounts is roughly \$100,000—\$600,000. This amount of funding could be applied to all creative placemaking interventions (physical improvements, aesthetic, and programming). In terms of physical improvements, this amount may not fully restore a Gingerbread house, but it could feasibly help to maintain institutional Gingerbreads already in usable condition. Using Dorsainvil's (2011) estimate of around \$2,000 per square meter (or \$186 per square foot) for the adaptive reuse of a Gingerbread as a hotel or office space, the potential of ArtPlace funding could help to maintain 3,230 square feet of Gingerbreads.

ArtPlace funding can be applied in many different ways depending on what community-defined goals are set through the application project. Depending on how the network of institutions manages the funds, it is possible that this funding could go toward individual institutional maintenance, or broader community-oriented programming. The flexibility of the funding, the simplistic success measure, and the agency afforded to recipients (outside of government regulation) offer the opportunity for important creative placemaking to support community resilience and heritage preservation.

Streetscape Experience.

This proposal starts with the smallest, most actionable items that work with the cultural and heritage strengths of the Gingerbreads to create awareness about their importance in the physical and social fabric of Port-au-Prince.

Signage

The historic photos of the Gingerbreads in Port-au-Prince and possibly other surviving records of ISPAN present an important opportunity to honor the memory of this architecture and activate it in contemporary society. Plaques of these historic photos of the Gingerbreads could be placed on the walls of the current Gingerbreads, showing a direct comparison of the past and present to anybody passing by. Pacot would be a good place to start because of the high number of Gingerbreads along the important roads, and a number of matches of historic photos have already been identified in the neighborhood.

Plaques could become an important step in creating social awareness and reminding people about the historical significance of the Gingerbreads. These historic photos can plant a visual reminder that might sow the seeds for more significant design interventions. Such an initiative in the neighborhood of Pacot comports with FOKAL's mission to "Create Arts for Social Change." The plaques can become a creative vehicle for expressing the artistic traditions and symbolism of Haitian architecture. This project is small enough that it could be funded through private donations or crowd-funding.

A similar plaque program was observed on a Gingerbread in Curaçao—organized by a neighborhood group, Ser'i Otrobanda.





Redesigning Walls

The high residential walls in the streets of Pacot have created a disconnect between the houses and the streets, negatively impacting public-private and social-spatial relationships. The streets have the appearance of tunnels, which in many ways exacerbate a sense of insecurity and isolation. Creative reinvention of the walls present an opportunity to play a role in both raising awareness of Gingerbreads, developing greater social cohesion, and enhancing urban form through:

- · Design inspiration
- Promotion of arts and culture
- Source of employment
- Means for social change

As noted previously in this study, there are significant barriers to eliminating or changing the nature of walls in Port-au-Prince. However, this does not preclude the exploration of artistic ways to reimagine walls, which can engage creative processes as well as a celebration of heritage. The traditional use of metalwork in Gingerbread fences and the still extant metalwork artisan community in Haiti present an opportunity to promote creative mergers of historic and contemporary design. FOKAL is potentially in a position to sponsor such processes through a design competition and ancillary exhibition in which artists and community members can participate by proposing and reviewing wall and fencing designs that valorize the Gingerbreads in Pacot and reconnect them to the urban landscape and public realm. Inspiration could be derived from the historic fencing that previously existed in the neighborhood. The participation of neighbors and community members in the program could cultivate broader social engagement, building trust among neighbors.

Exploring possible wall options in Pacot.







Street Lighting

Similar to decreasing wall heights and in line with the goals of improving streetscape visibility, the studio has highlighted the importance of street lights and improved street lighting efforts. A proposal put forth by the 2015 Haiti studio indicated street lighting as both an area of weakness and an area of potential; this studio builds upon this previous effort focusing on Pacot.

The fear of crime and crime itself are jointly linked. Improved visibility is widely believed to increase the identification and apprehension of criminals (Atkins et. al, 1991). This perception of safety and security is a crucial element in improving the emotional security of residents and their sense of community. This is not specifically connected to Gingerbread heritage, however the studio agrees that agencies like FOKAL and on a smaller scale HELP, can implement lighting elements in their design and development, which can have a positive impact on the neighborhoods in which they operate.

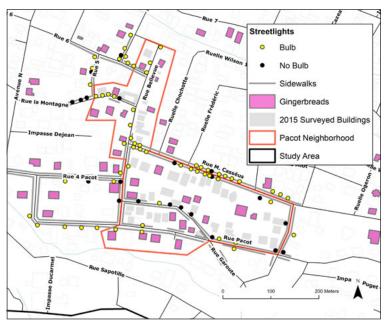
Immediately after the earthquake in 2010, Haitians were relocated to camps in which safety was a major concern, robberies and assault crimes were increasing and it became unsafe to walk the camps at night (Haiti Libre 2011). This led to the implementation of solar powered street lights. These lights aided in decreasing theft and assaults and were spearheaded by a French philanthropy group, Concepteurs Lumière Sans Frontières (CLSF) also known as, Lighting Designers Without Borders (Haiti Libre, 2012). The Good Energies Foundation, from Washington, DC, also donated solar light systems with the intention of families bringing them home after the city was revitalized (Lavelle 2010). Efforts to improve lighting in isolation such as during the earthquake relief can be used as an impetus for continued interest in lighting smaller sections of Port-au-Prince prior to illuminating the city as a whole.



(Left) HELP students mapping existing lighting on Rue Garoute in Pacot. (Bottom left) 2015 GSAPP Studio proposal for street lighting route in Pacot. (Bottom right) 2017 field mapping that shows the locations of existing street lights and a continued need

2015 proposed path.





During the field visit to Haiti, the students from HELP mapped the locations of functional and nonfunctional street lighting in Pacot. These maps coincide with the proposal that the Columbia HP Studio 2015 presented, which proposed a lighting path in Pacot, Place Jeremie, and Lavaud to improve student safety and increase awareness of the Gingerbreads as an integrated heritage resource. Their proposed lighting path in Pacot matches with the path that the HELP students marked in the maps during the field visit. This exercise solidifies the need for the streetlights for safety of the neighborhood and could be a stepping stone for social change.

In an interview, Lorraine Mangones explained that FOKAL has been working with lighting designers, looking to make soft lighting additions to the area, however, partnerships/funding is an issue, especially when working with the city. Current lighting is too bright (spotlights) and

makes things more dangerous because of the focus of light in certain areas (Mangones, *pers. comm.* 2017). Forging community partnerships can potentially enable stewardship by leveraging the community's shared interest in safety, which may help alleviate fear. For example, if all of the Gingerbreads in the 2017 map installed a "soft light" on the street side of their property, this could lead to a "One Light, One Neighbor" initiative. This grassroots, neighborhood level effort to get more lighting on streets could be tested in Pacot and serve as a small step toward achieving a long-term goal: improved light dispersal throughout Port-au-Prince.

Homeowners could acquire lights through organizations like the aforementioned CLSF with the facilitation of FOKAL, as they already work closely with such organizations. This studio recognizes that efforts done by philanthropic agencies such as FOKAL can be temporary, but they can also act as powerful catalysts to wider state-facilitated efforts. Often times it takes a jolt of light to catch the government's attention and see that an activity is worthy of long-term investment.

Community Mural Painting

Engaging with the large pool of Haitian artists to create street murals on the large swaths of available wall space can promote social engagement and neighborhood stewardship through public art. This kind of creative placemaking intervention would act as a tool for community resilience through increased public participation as well as heritage preservation through a focus on the Gingerbread neighborhood.

FOKAL's overarching mission of enacting social change through the arts would make them an ideal community organizing actor for this project. FOKAL has successfully garnered community support for past projects, including Parc Martissant, and their expertise in engaging people would help identify appropriate mural designs. These mural designs could engage on a lot of different issues and themes, including Gingerbread heritage, security, history of institutions, Haitian history, etc. The point is not to propose a design, but rather to develop one through the conversations with neighborhood stakeholders. The large population of students in the neighborhood, especially HELP students, could provide hands for painting. HELP students might also assist with social engagement, asking about stories of different Gingerbreads and of the neighborhoods history. The mural could act in concert with plaques and tours to enhance and solidify a stronger pride of place.

Within the larger the Gingerbread neighborhood, Pacot has some of the most continuous and highest available streetwall space for mural painting. In addition, main commuter thoroughfares like Rue Garoute run through these neighborhoods, offering a highly foot trafficked place for the display of mural artwork. Because the new HELP campus will eventually be along Rue Garoute, there is more potential to engage residential neighbors to allow their walls to be painted with the support of HELP students.

The representation pictured with this proposal is meant to be abstract, to show the potential of these walls for creating a positive street experience that serves the larger goal of social change. Residents and institutions value their walls for safety reasons, making them a more permanent part of the neighborhood at this time. Therefore this low-cost aesthetic improvement addresses this reality while enhancing social cohesion through the mural creation process, allowing for community interpretation, unification, and beautification through public art.



Existing wall on Rue Bellevue in Pacot.



Abstract mural depicted onto blank walls on Rue Bellevue in Pacot.

This type of project could be paired with a volunteer clean-up day. As modeled by a successful event in Bogota, Colombia in June 2017, where over 1,400 community volunteers came out for a day of neighborhood clean-up and wall painting in the historic neighborhood of La Candelaria, the Gingerbread neighborhood of Pacot in which HELP is situated could play host to a similar event of community stewardship. While the event in Bogota was organized through a heritage-oriented entity of the Colombian Ministry of Culture and financed through a corporate sponsorship from Citibank, the imperatives modeled at this event could nevertheless be incorporated into projects involving local groups in Port-au-Prince as a way of linking local stewardship practice to practical, aesthetic and interpretive improvements. Students involved in HELP's programs, already involved with community volunteer work, might fill provide natural positions of leadership in spearheading the development of a similar event along Rue Garoute as a way to activate HELP's new site.

Heritage Programming.

Cultural Festivals

World Monuments Fund (WMF) Watch Days are events organized by local communities around the world to celebrate and advocate for stewardship of sites included on the World Monuments Watch. The Gingerbread Neighborhood played host to a Watch Day event in September of 2012, which included art, music, and story-sharing activities. The studio proposes that a cultural event following the model of WMF Watch Days could be formalized as part of regular, annual celebrations. An event series could be hosted by the network of education and cultural organizations discussed, as well as by other Gingerbread owners throughout the broader study area as a series of pop-up performances or skill-shares, in order to make the resources embedded in the built heritage of the neighborhood more reliably available—and more relevant—to the public beyond its walls.

The Gingerbreads of Pacot would provide a unique context for a pop-up festival comprised of lectures and skill-share workshops. Organized through a broad network of cultural and educational organizations in Port-au-Prince, this event series could provide a context for strengthening interpersonal and organizational relationships, as well as build greater capacities for community resilience through the hands-on transfer of knowledge. A social programming complement to the Gingerbread association-building scenario proposal, this scenario would instead aim to broaden its range of participant organizations beyond the Gingerbreads themselves to all those engaged in educational and cultural development. By working toward the shared goal of integrating community interests, a knowledge exchange event series could provide new opportunities for public conversation while expanding existing stakeholder-groups in heritage.

Workshops might range between practical architectural solutions as demonstrated through Gingerbread architecture (for Gingerbread and non-Gingerbread property owners alike), to student-led community discussions about their school waste-reduction projects, to workshops related to musical events or religious festivals. Many cultural events are already organized and hosted by FOKAL—the innovation would be to capitalize upon Pacot's spatial typology of large houses and historically wealthy residential lot sizes for the purpose of developing shared community knowledge. This scenario intersects the studio's expressed aims of valorizing heritage, championing resilience by fostering social solidarity, while furthermore engaging in the active social programming embedded within creative placemaking scenarios. By choreographing an exchange of knowledge between the Gingerbreads and the more ubiquitous spatial practices of local communities, the resources embedded in the built heritage of the neighborhood might thereby be made available—and more relevant—to a public beyond its walls.

A network of cultural and educational organizations throughout the study area would host events open to the public. Collateral would amount to an event calendar, likely online, although a large-scale, real world version might also be created in the space of Pacot's prominent wallscapes. A web portal companion would nevertheless be an essential bank of event details, descriptions and past archives. The festival could piggyback upon prominent holidays or other ritual events as a point of departure. Carnival celebrations serve this purpose in many other Caribbean nations.

The locations of events would ideally be hosted by a range of institutions, partnering vacant or underused properties with member organizations representing the broader urban geography of cultural and educational organizations for temporary pop-up skill-share events.

Throughout the narratives from the educational and cultural organizations that were visited, there is an overwhelming sense of disconnection between them that is exacerbated by a more general lack of understanding of (or appreciation for) the Gingerbreads as a common experience and resource. This lack of connection between organizations makes each of them more vulnerable to programmatic alteration as well as deterioration through neglect. To expand the focus more broadly to educational and cultural organizations beyond those in Gingerbreads would likely yield a similar state of affairs of commonly privatized purview.

Ample opportunities exist in the corridors which comprise Pacot's roadways for networking and announcing events. Trafficked by a unique range of classes, the high walls themselves might provide surprising opportunities to connect disparate communities by pointing the way to more integrated, though perhaps temporary spaces. These corridors might also present opportunities to play host to certain events themselves, beyond the meta-event of a community-bulletin.

Gingerbread Tours

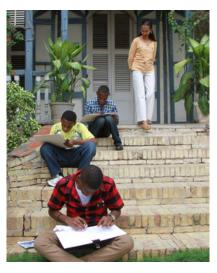
Beginning as part of the WMF-sponsored Watch Day festivities in September of 2012, the cultural organization Akoustik Productions organized an event called Atis Nan Kay La, meaning "artists from the home," in collaboration with FOKAL, which included a tour of Gingerbread houses accompanied by traveling RARA musical performances and an explanation of the architectural details of each house. These tours have been revived at other cultural events sporadically since.

World Monuments Fund Watch Day events in 2012 included tours and sketching activities.









Inspired by the success of these Watch Day tours, a tours program co-created by HELP campus teachers, students, and owners of Educational and Cultural-use Gingerbreads could train volunteer tour guides in order to increase awareness of Gingerbread resiliency, cultural value, and their threatened status. Most importantly, this program interconnects the geographies and lenses of the HELP Campus, Pacot node, and Educational/Cultural Institution-focused Gingerbreads.

As an initial phase, the tours program could be implemented within the programming and educational goals of the HELP campus. By offering tours as field trips in both French and English, as well as having an educational incentive for volunteering to display leadership and service, the tours would align with the educational goals of HELP. In this initial phase, guides could include teachers and upperclassmen. While stops on the tour would be centered around individual Gingerbreads within the Pacot neighborhood, the routes taken could also feature walls painted by other schools or cultural institutions.

Through generating greater interest in these Gingerbread properties, the hope for these tours would be to eventually incentivize the other schools and cultural institutions into participating themselves. In later phases, the tours program could branch out to include members of ISPAN, FOKAL, metal and other crafts-based workers, and other Gingerbread owners. As a result, renewed public interest in Gingerbread conservation would develop through the inclusion of these currently disparate and competing institutions around a shared goal of tour route participation. At this juncture, however, an organizing entity between schools would likely need to assume responsibility of this program. FOKAL is an ideal candidate, since this presents an easy segue from their current initiatives and would help connect them initially in Pacot. Through an ongoing, shared experience of the built space of Pacot, this tours program would ultimately further encourage the institutions located in Gingerbreads to better engage with the community due to greater visibility.



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