Healing and Reintegrating in the City: Urban Infill as a Sanctuary for Jane Doe

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Healing + Reintegrating in the City

URBAN INFILL AS A SANCTUARY FOR JANE DOE

SHARON AN
The sex trafficking industry is not only a social justice issue, but also an architectural issue. In the same urban fabric where people live, work, and socialize, victims of commercial sex trafficking live in the shadows, work in obscure environments, and isolate themselves from others. National and local resources in mental care, job training, and legal support fail to provide a holistic place of refuge for these displaced individuals. Current shelters that specifically serve sexually exploited victims also face limitations in their location, availability, and living arrangements.

With a specific socioeconomic climate and disparity in San Francisco, Bayview presents itself as an opportune place to provide refuge for both survivors of sexual exploitation and the low-income community. Even as a distressed neighborhood, its ethnic diversity and existing infrastructure would create a foundation for survivors to heal and reintegrate into a resilient community. At an urban scale, ecological infrastructures provide sustainable approaches to combatting rising sea levels and economic restoration for local industries significant to the neighborhood’s historical identity. The architectural intervention focuses specifically on female survivors of sexual exploitation, ranging from youth to mothers with children. A range of spaces reflect the individual and collective process to heal from trauma and reintegrate into a reliable network of people and places.

Hand stitching is an integral part of the design process. It is both a drawing medium that emulates a repetitive and meditative activity and a visual language used to formulate spatial sequences, patterns, and movement. Maintaining the act of stitching as a metaphor for architecture, a variety of sanctuaries and places of refuge are woven to strengthen the urban fabric. Residents dwell in the permanently supported community housing, where they mend bodies, hearts, and relationships in the home. Other survivors are welcomed into the drop-in facility, which provides initial resources like hygienic care and counseling. Retail spaces along the main corridor are programmed to create a synergistic seam between residents and opportunities to participate in the neighborhood. Interior and exterior thresholds throughout the building interlace the duality of open and protected spaces. This cohesive spatial journey would bind wounds, foster resiliency into the urban ecosystem, and ultimately be reconciled to a dignified home, workplace, and social environment.

Sex trafficking is a form of modern slavery. This inhumane industry is exacerbated in cities as more people move into the urban environment. In the same cities people live, work, and socialize, victims of commercial sex trafficking live in the shadows, work in obscure environments, and isolate themselves from others. Many sexually exploited victims receive limited care to recover from their physical, mental, and emotional wounds. Unfortunately, they are often grouped together with other displaced groups. This thesis calls out a specific group in need of healing, female survivors of sex trafficking, and considers a specific place where she can restore her sense of home, workplace, and community. The female survivor is given the name Jane Doe, and her unique narrative drives the types of spaces she needs to feel safe, loved, and cared for.

The design proposal is sited in Bayview, an industrial urban neighborhood in southeastern San Francisco. The neighborhood at large is first imagined to set a foundation for welcoming Jane Doe. Then, the proposed building integrates three types of spaces: a community housing, a drop-in center, and retail spaces with workshops. It is nestled amongst warehouses, houses, and other local shops.

This thesis ultimately expresses the possibility architecture has in doing more than providing an inhabitable space. The architecture for Jane Doe is a sanctuary that plays a definitive role in healing her body, heart, and mind, as her sense of belonging is restored.

ABSTRACT

Sex trafficking is a form of modern slavery. This inhumane industry is exacerbated in cities as more people move into the urban environment. In the same cities people live, work, and socialize, victims of commercial sex trafficking live in the shadows, work in obscure environments, and isolate themselves from others.

Many sexually exploited victims receive limited care to recover from their physical, mental, and emotional wounds. Unfortunately, they are often grouped together with other displaced groups. This thesis calls out a specific group in need of healing, female survivors of sex trafficking, and considers a specific place where she can restore her sense of home, workplace, and community. The female survivor is given the name Jane Doe, and her unique narrative drives the types of spaces she needs to feel safe, loved, and cared for.

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All the glory to my Heavenly Dad:
He has opened my eyes to see the injustice in our cities.
And to the ladies:
Thank you for sharing glimpses of your hearts.
I see you, hear you, and stand with you.
**SEX TRAFFICKING INDUSTRY**

The sex trafficking industry is a thriving commercial business. The basic structure of sex trafficking consists of the buyer, trafficker, and victim. With access to many places for traffickers to search for victims, earn their trust, and efficiently sell them into a variety of markets, this rigorous, traumatic cycle is a form of modern-day slavery. No population or ethnic group are exempt from being victimized, although vulnerable groups with family history of poverty, mental illness, homelessness, substance abuse, domestic violence, and sexual abuse have higher chances of being succumbed into this cycle.

According to a Polaris report, “On-Ramps, Intersections, and Exit Routes: A Roadmap for Systems and Industries to Prevent and Disrupt Human Trafficking”, the manipulative system behind human trafficking makes almost every industry susceptible as a gateway to recruiting victims by traffickers. Figure 2 shows a comprehensive chart of how 25 types of sex trafficking are channeled and maintained through 8 different systems and industries.

Sex trafficking is especially relevant in metropolitan areas today. Greater population density gives way to higher frequency of recruitment opportunities. For example, the homeless population is more dense in urban areas because panhandlers would have more access to people walking or driving pass by them. Access to a more robust public transportation infrastructure also makes cities well-targeted places to maneuver both traffickers and victims easily.
|----------|----------------|---------------------------|----------------------|---------------------------|---------------|-----------------------------|-------------|----------------------|-------------------------|-----------------|-------------------------|-----------------------------|-------------------------|-----------------|-----------------|-----------------|------------------------|-----------------------------|-----------------------------|------------------------|--------------------------|---------------|-----------------|---------------|-----------------|

Fig. 4: Sex Trafficking Matrix: this table shows how 25 different types of sex trafficking intersects in 8 different industries. This tool can begin to help identify ways the industries are paving way for traffickers to exploit victims.

Fig. 5 (Above): Types of Trafficking Affecting Potential Victims Experiencing Homelessness National Human Trafficking Hotline: January 1, 2015 - December 31, 2017 (n=1,348)

Fig. 6 (Right): Concerns of Sex Trafficking Victims National Human Trafficking Hotline: January 1, 2015 - December 31, 2017
SEX TRAFFICKING INTERVENTION

Within the same industries and systems that promote sex trafficking, intervention is possible to assist victims to exit the life. These victims who experienced a rigorous cycle of sexual exploitation, coercion, and abuse are left with physical, social, and psychological trauma. Like many marginalized individuals, trafficked victims seek refuge from broken bodies and broken hearts; unlike the other marginalized, they have special needs in order to recuperate from their traumatizing environments.

A preliminary study was done in four U.S. cities (San Francisco, Oakland, Washington, D.C., and Baltimore) to identify services available for survivors seeking both immediate and developmental support. Four types of population groups (women, youth, domestic, and international), two types of sheltering system (short and long), and four types of support services (mental, legal, job, and prevention) are used to understand the national climate of sex trafficking intervention.
Types of overnight shelters. Assessment, restorative and emergency shelters provide immediate needs like other who are actively being trafficked to consider change. Between the stages survivors would go through to fully available in the U.S. Ideally, these 6 programs close the gaps Figure 7 takes a closer look at the current sheltering system available in the U.S. Ideally, these 6 programs close the gaps between the stages survivors would go through to fully restore their physical, mental, and emotional health. Outreach programs and drop-in centers invite clients who are actively being trafficked to consider change. Emergency shelters provide immediate needs like other types of overnight shelters. Assessment, restorative and graduate programs begin to implement protocols to assist clients to cut relationships with their traffickers and pursue developmental changes.

In order to understand how these programs are spatially implemented, the current programs at FAIR Girls is used as a case study. This Washington, D.C. organization is comprised of a drop-in center to provide day-time services, such as counseling, restorative activities, and legal services. It also runs an assessment program through the Vida Home, which houses up to 6 women from ages 18 to 24 for a maximum of 90 days. Spending a semester volunteering on site as well as learning about the individual clients revealed many needs of the organization based on its spatial qualities alone.

First, the two services are not housed under the same roof, which makes it difficult for staff to travel to and from each site to fulfill client needs. Although the drop-in center is located in an urban neighborhood with access to public transportation, the Vida Home is distant from many amenities in a suburban neighborhood, roughly 40 minutes from the main office by transit and 20 minutes by car. Both spaces face size deficiency: a staff member expressed the need to expand the drop-in center to provide individual counseling rooms and offices and renovate the Vida Home to make it an ADA-friendly space.

A spatial reconfiguration would benefit the organization to create separate secure and open spaces, as well as separate client and staff spaces. It would tremendously make a difference for women who come with preconditioned psychological disorders.
“Though [the new facility] is clean, the harsh fluorescent lights and pale green walls with the long hallways decorated with nothing more than a few child abuse hotline posters, don’t really add up to a warm feeling...If you ended up here, it was likely after repeated abuse or neglect. You would probably just have been removed from your home, a terrifying experience even if you did feel lucky to escape. Now you were in unfamiliar territory, with strangers, in one of the most child unfriendly spaces in the city.”

Rachel Lloyd in Girls Like Us

“Jane Doe” represents female victims and survivors of sex trafficking in the United States. This name is used specifically in the documentary, I am Jane Doe, to stand in solidarity with female survivors who escaped the industry and fought for those who are still trapped today.

She is veiled behind statistics and often times blends in as indistinct to other displaced and transient groups. She not only seeks refuge from a broken body and broken heart, but acceptance and reintegration into a community. Her nameless, anonymous identity aims to reveal the possibilities that she may be a neighbor, a classmate, a helpless resident who roams the streets we walk through.

The Jane Doe profiles in the following pages summarize the narratives of actual women who lived the life and publicly shared their stories. The diversity in age, race, and upbringings creates an overwhelming task to tend to each individual's stories of tainted love, family, and trust. How would each woman be healed from repetitive manipulation and isolation to trust and grow with a community?
U.S. NATIVE TEENAGER
- St. Louis, Missouri
- Middle class, stable family
- Trafficked at 13 years old on backpages.com
- Found by a Madam
- Missing for 270 Days

U.S. NATIVE TEENAGER
- California
- Abusive home
- Trafficked at 13 years old
- Found by a Couple
- Trafficked for 3 years from domestic labor to commercial sex

U.S. NATIVE SINGLE MOM
- Oregon
- Middle class, stable family
- Has a baby daughter
- Trafficked at 18 years old
- Found by a Romeo
- Trafficked for 6 years in Las Vegas

U.S. IMMIGRANT FROM KYRGYZSTAN
- Tyler, Texas
- Arranged marriage with second cousin
- Has two daughters
- Trafficked at 19 years old
- Found by husband
- Trafficked in Texas
- Obtained T-Visa
SITE ANALYSIS
The San Francisco Bay Area boasts in being home to many globally influential tech companies. San Francisco is also known to be one of the most expensive cities in America, facing drastic economic disparity between neighborhoods.

Based on previous section’s research, it was important to consider a site for Jane Doe where she could root herself without feeling displaced. The following list of site criteria was formulated to use as a basis to determine an appropriate neighborhood in the Bay Area for Jane Doe to heal and reintegrate.

1. Affordable neighborhood
2. Racially and ethnically diverse
3. Local job opportunities
4. Access to public transit
5. Access to public amenities

Bayview fits well into the five site criteria listed above. Located at the southeast corner of San Francisco, its blue collar, immigrant roots with robust transportation infrastructure allows for an opportune place to insert programs that would benefit both Jane Doe and the greater Bayview community. Understanding the history of Bayview, the development of its urban fabric, the evolution of Islais Creek, and economic opportunities contributed to conceptualizing programming needs of Jane Doe and residents of Bayview.
Fig. 17: Various commercial and industrial storefronts in the neighborhood.

Fig. 18: Murals and Bayview Opera House depicting Bayview’s vibrant culture.

Fig. 19: Open spaces, both public and private, along the Third Street corridor.

Fig. 20: Recent multifamily residential developments begin to introduce new architecture typology in the area, promoting density in a primarily low-rise neighborhood.
HISTORY + COMMUNITY

Fig. 21: Northwest view of the historic Islais Creek, 1866

Fig. 22: Bayview/Hunters Point property’s real estate development to a “Butchertown”, 1839-1930s

Fig. 23: Shrimping industry operated by Chinese immigrants, 1870s-1930s

Fig. 24: Construction of the dock being used for shipbuilding, then as the San Francisco Naval Shipyard, with influx of blue-collar workers, 1866-1950s

Caltrain, the Bay Area regional train, travels northbound towards downtown and southbound towards San Jose.

MUNI Metro Rail runs every 10 minutes or less, northbound towards downtown and southbound towards Bayshore Caltrain station.
The historic Islais Creek runs from the San Francisco Bay into Bernal Heights. As the industrial era called for demand in shipping ports, the edges of the water were filled and the original creek were covered. Today, some areas of the port are still used for cargo shipping, while other parts are abandoned as industrial waste. At the current rate of sea level rising, the body of water would reclaim space beyond the original shoreline. The city has multistage plans to mitigate the flood risk, although they do not offer long-term resiliency.
Opportunities to work within the neighborhood is an important criteria in placing Jane Doe in a specific community. One critique of current trafficking intervention services is the constant movement of Jane Doe from group home to group home, from shelter to shelter. She is not able to properly reintegrate herself into a community. Engaging into Bayview’s current workforce invites Jane Doe to build a reliable professional network, another aspect that was tainted by the sex trafficking industry.

The Bayview neighborhood, especially near the Islais Creek Channel, has a very high density of employment, according to Figure 27. This place would be an advantageous starting point for Jane Doe, with possibilities to expand beyond her neighborhood to other job hubs as she learns new skills and pushes her boundaries.

Figure 28 takes a closer look at four types of industries present in the neighborhood. The majority of jobs being in the manufacturing and logistics industry maintains the neighborhood’s economic history. Along the Third Street corridor, there are more local retail businesses. With many blue collar employment opportunities, recovering from the life involves a new beginning to her vocation. Surrounded by a community of mom-and-pop establishments and modest residents, Jane Doe would feel empowered to learn new skills, interact with others, and contribute to the local economy. Within a 5-10 ride on public transit, Jane Doe would have access to healthcare, education, and government facilities for personal support as well as the possibility of her offering support to others in the future.
Vedel-Petersen, in 1988, defines cohousing as “a housing group which involves a number of independent homes with additional common facilities, such as common rooms and open spaces”.

Cohousing originated in Denmark in the 1930’s as a revolt against conventional family and promote women in the workforce. The concept sprang up in the 1960’s with Saettedammen and others in suburban neighborhoods.

McCamant & Durrett began the cohousing development movement in North America. Most traditional cohousing are communal spaces with single family dwellings, both detached and townhomes, within an intentional community.

This housing typology reinterpreted to accommodate various groups of community aiming to create intentional living habits. Some examples of cohousing derivatives include coliving, collective housing, and cooperative housing.
The following examples of multifamily housing look at ways architecture deals with the relationship between openness and protection. Each example includes distinctive programming that were used as inspiration for the proposal.

Maggie's Centres focus on providing healing spaces for cancer patients. Although the following projects exhibit a different building typology, the sensitivity of architecture and nature in these care centers emphasize the value of spatial experience in the process of healing. The spatial and landscape requirements for each Maggie Centre was used as an initial checklist for how spaces for Jane Doe could be developed.
The fiber is produced exclusively from sustainable raw materials – wood and seaweed – using methods that save both energy and resources. The fiber is carbon neutral and completely biodegradable. Harvesting of the seaweed is a gentle, selective and, most importantly sustainable process. It removes only the part of the seaweed that is able to regenerate. The seaweed is entirely untreated and all its ecological value is retained.

Materials for building construction was explored based on symbolic references to Jane Doe’s healing process. They consider the extent of transparency and opaqueness as the women transition between private and public spaces. As the neighborhood itself would be proposed to implement infrastructures that are symbiotic to the changing landscape, the architectural materials also reflect nature’s interaction with the built environment and healing elements.
DESIGN PROCESS
Stitching was a laborious but rewarding approach to this design process. The physical act of stitching and sewing is closely related to women's activity. In the beginning, the thread and delicate pieces of rice paper were used to emulate the meditative and healing process of Jane Doe.

The medium then became a mapping tool, shown on the right, to contextualize this labor-intensive task in the spatial realm. Jane Doe's movements to and from places would be imprinted in the neighborhood. In the next pages, stitching transforms into a visual languages that relates back to how the architecture would be addressed based on thresholds Jane Doe would cross to enter into various levels of public and private spaces.

Through these exercises, stitching proves to be a rich metaphor for the urban “fabric”. Ultimately, it fosters a sensitive spirit to approaching the architecture itself.
- Running Stitch - Quick, large, temporary stitch
- Buttonhole Stitch - Securing, finishing raw edge of fabric
- Catch Stitch - Criss-cross, front-facing stitch
- Cross-Stitch - Type of embroidery
- French Knot - Type of embroidery
- Back Stitch - Small, durable, resistant stitches
- Whip Stitch - Securing, joining two edges of fabric
- Back Stitch - Roof
- Back Stitch - Floor/ceiling and exterior wall
- Running Stitch - Glass
- Back Stitch - Floor/ceiling and exterior wall
- Running Stitch - Glass
- Back Stitch - Floor/ceiling and exterior wall
- Running Stitch - Glass
- Back Stitch - Floor / ceiling
- Running Stitch - Glass
An all-female group launched the first open water seaweed farm in the Bay Area as a sustainable food initiative. Seaweed is already an integrative part of the coast’s ecology and the health of the water.

This ecological wastewater treatment facility provides public access to recreational spaces in a public utility zone.

The slow-growing, native oysters are foundational species in West Coast bays and estuaries. Islais Creek would house the second farm for San Francisco Bay’s local Hog Island Oyster Company. Hog Island takes a sustainable approach to aquaculture with safe and fair working conditions and various ecological conservation initiatives.

This rebirths Islais Creek’s historic commercial activity and adapts Southeast Asia’s traditional shrimp farming techniques that are smaller in scale and contributes to the coastal ecosystem.
The final design consists of a mixed use urban infill development with three types of spaces. The supported community housing directly serves the main target population, providing Jane Doe a dignified home to rebuild her foundation of family. The drop-in center serves other Jane Does in San Francisco who are not ready to leave the life, but are in need of basic needs and safe space. The Third Street storefront is dedicated to the public to provide a gateway for Jane Doe back into the community.

The diagram below shows sectionally how spaces and amenities are allocated between Jane Doe residents and Jane Doe visitors. Access and security are important elements to the project because the three programs are intertwined. The axonometric diagram on the right identifies how each of the three groups of people circulate around the space, keeping the public from entering into areas Jane Doe heals.
1. Resident Lobby Below
2. Resident Library
3. Resident Dance Studio
4. Drop-In Center Shower
5. Drop-In Center Mezzanine
6. Drop-In Center Lobby Below
7. Bakery Workshop
8. Bakery Classroom
9. Urban Greenhouse
10. Outdoor Deck
11. Textile Workshop
12. Textile Classroom
13. Storage
14. Mechanical
Second Floor Plan

1. Three-Bedroom Unit
2. Two-Bedroom Unit
3. Semi-Private Balcony
4. Private Balcony
5. Staff Studio Unit
6. Conference Room
7. Meeting Room
8. Green Roof
9. Roof Deck
10. ADA Bathroom
Third and Fourth Floor Plan

1. Three-Bedroom Unit
2. Two-Bedroom Unit
3. Semi-Private Balcony
4. Private Balcony
5. All-Gender Restrooms
6. Semi-Private Lounge
7. Meeting Room
8. Office
1. Resident Community Lounge
2. Resident Community Kitchen
3. Resident Meditation Room
4. Resident Balcony
5. Drop-In Center Community Lounge
6. Drop-In Center Kitchenette
7. Drop-In Center Balcony

Penthouse Plan
Roof Plan
North-South Section Through Housing and Drop-In Center
South Elevation - Housing Entrance
East-West Section Through Shaft and Courtyard
Resident Lobby

Resident Courtyard
This thesis is an expression of my passion and soul, as an urban citizen who cares deeply about the lives of the women who remain nameless. Here, architecture is an inhabitable space that responds to the injustice in cities. The research behind the sex trafficking industry reveals the spatial inequality that arises from our society that has yet to provide a holistic restorative system. Understanding a neighborhood’s history and people allows the architecture to reflect its authentic identity. Understanding communal living and sustainable materials considers the architecture as a resilient organism for both the inhabitants and the local ecosystem. Stitching ultimately becomes a meaningful physical, mental, and emotional activity that inspires the architecture beyond its physical form. Stitching also becomes an embraced metaphor for architecture, maintaining a sensitive attitude towards mending pieces of the urban fabric.

Providing a specific population with a dignified designed space tells a greater story. Jane Doe’s sufferings under a broken system is not dissimilar to other displaced populations who struggle in cities that do not call them worthy to be known. Unfortunately, the built environment today is often driven by trends and profit motives. The challenge for architects today lies in the voice we choose to express in design. How can architects educate themselves better to create restorative spaces for people? How can architects provide a voice for those who are unheard? There is much more to learn and consider what it means for cities to advocate for compassionate design.

As Henri Lefebvre advocated for the right to the city, Jane Doe still waits to live out her right to a to live, work, and socialize in a city she calls her refuge.
Fig. 1. What is Sex Trafficking? Shared Hope International. https://sharedhope.org/the-problem/what-is-sex-trafficking/. The diagram was recreated by the author based on the information provided on the original infographic.


Fig. 7. Programmatic Diversity. “From Where We Stand: Analysis of Our Landscape.” Institute for Shelter Care.

Fig. 8. FAIR Girls Logo. FAIR Girls. https://www.fairgirls.org/.

Fig. 9. Vida Home. FAIR Girls. https://www.fairgirls.org/our-work/.

Fig. 10. Case Management. FAIR Girls. https://www.fairgirls.org/our-work/.


Fig. 12. San Francisco Satellite Map. 2020. Google Maps. Linework and text added by the author.

Fig. 13. An, Sharon. January 19, 2020.


Fig. 15. An, Sharon. January 19, 2020.

Fig. 16. San Francisco Satellite Map. 2020. Google Maps. Linework and text added by the author.

Fig. 17. An, Sharon. January 19, 2020.

Fig. 18. An, Sharon. March 6, 2020.

Fig. 19. An, Sharon. March 6, 2020.

Fig. 20. An, Sharon. March 6, 2020.


Fig. 22. Butchertown. Bayview Opera House. https://bvoh.org/culturehub/history-bvhp/.

Fig. 23. Shrimping Industry. Bayview Opera House. https://bvoh.org/culturehub/history-bvhp/.

Fig. 24. History of Bayview/Hunter’s Point. Bayview Opera House. https://bvoh.org/culturehub/history-bvhp/.

Fig. 25. San Francisco Historical Creek Map. 2008. Oakland Museum of California. http://explore.museumca.org/creeks/SFTopoCreeks.html. Image cropped to only show relevant portion.

Fig. 26. San Francisco Peninsula. 1869. David Rumsey Map Collection. https://www.davidrumsey.com/luna/servlet/detail/RUMSEY~8~1~180053:San-Francisco-Peninsula?sort=Pub_Date%2CPub_List_No_InitialSort&fq=q:City%3D%27san-francisco%27%22;sort:Pub_Date%2CPub_List_No_InitialSort;lc:RUMSEY~8~1&mi=54&rs=1861.

Fig. 27. Employment Density. 2011. Urban Displacement Project. https://www.urbandisplacement.org/map/sf. Interactive map zoomed in to show relevant area.


Fig. 29. Saettedammen. Bofaellesskab.dk. https://bofaellesskab.dk/bofaellesskaber/se-bofaellesskaber/saettedammen.


Fig. 34. Swan’s Market. Pyatok. http://www.pyatok.com/work/project/t12/2/SWANS-MARKET.

Fig. 36. Yang, Chaoying. *Tulou Collective Housing*. Danish Architecture Center. https://dac.dk/en/knowledgebase/architecture/tulou-collective-housing/.

Fig. 37. Spatial Requirements in Maggie’s Architecture and Landscape Brief. Maggie’s Koswick Jancks Cancer Caring Trust: 13-16. https://maggies-staging.s3.amazonaws.com/media/filer_public/a0/3a/e03e8b60-ecc7-4ac7-95a1-18d9f9c4e7c8/maggies_architecturalbrief_2015.pdf.

Fig. 38. Maggie’s Cardiff. Maggie’s. https://www.maggiescentres.org/our-centres/maggies-cardiff/architecture-and-design/.


Fig. 42. SeaCell™MT – Modal technology brings the power of seaweed to a fiber. smartfiber AG. 3-4. https://www.smartfiber.de/fileadmin/user_upload/RZ_Brosch_SeaCellMT_final_ANSICHT_e.pdf.


Fig. 44. Salt Point Seaweed. Meet the Women Behind California’s First Open-Water Seaweed Farm. 2018. Sierra. https://www.sierraclub.org/sierra/meet-women-behind-california-s-first-open-water-seaweed-farm.


Fig. 46. Harvesting. Hog Island Oysters. https://hogislandoysters.com/oysters/farming/.


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