

A LANDFILL PENINSULA AS AN EXPERIMENTAL USE SPACE. A CASE STUDY OF ALBANY BULB

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ABSTRACT

The article is a case study of a former landfill in Albany Bulb in San Francisco Bay Area in Northern California. The studied area, which is adjacent to a state sponsored beach park development, is an example where “dormant reserves” of a degraded terrain are revitalized via a grassroots movement of its users. The characteristics of this region’s space development are influenced by both the McLaughlin Eastshore State Park managed project and spontaneous, “semi-wild” use by the local residents, who are frequently organized into local interest groups. It became a place of symbiosis where a visitor can choose between a formally organized or semi-organized, more organic space. As this area became an experimental playground for adults, its popularity demonstrates a demand for alternative city parks, where the user participates in its design and development of a selected model. This article also discusses the campaign to transform landfills into recreational parks originated by the Center for City Park Excellence in San Francisco, whose proposed legislature supports an effective way to harness the potential of materials accumulated there.

Key words: landfill, grassroots, restoration, user-made space, alternative parks

INTRODUCTION

The anthropocentric era was visibly marked by artificial alterations of landscapes, where the planet’s image and ecosystem were primarily influenced by the human kind. Postindustrial ruins and dump sites with consumers’ trash that altered the landscape, were the side effect of some of human activities. This creates a challenge for a sensible solution to restore those areas back into a usable terrain. If we consider the fact that the landfills are still the least expensive method of disposing city trash (Vaverková, Adamcova & Toman, 2013), it is also reasonable to conclude that multidimensional shapes, such as mounds are the most popular solutions and most frequently chosen due to economic reasons. Due to its proximity to the cities, after the revitalizing efforts of those spaces and at-

tempts to integrate them into existing ecosystem, they commonly become spaces for public use.

When shaping public spaces and parks built on old landfills, we should question how the history of the space would dictate the direction of its future development – should we hide the past of it as a landfill, or rather underline its harsh origins.

The Albany Bulb in the San Francisco Bay in California, a former industrial/construction debris and trash landfill, for several years was left without clear decisions regarding its future, restoration and oversight. This space serves as an excellent place to observe organic efforts and low-tech use forms, and understand a potential on how to exploit post civilization industrial ruins. Located in a high-density urban area, this artificial peninsula incorporated itself in the surrounding landscape forms by imitating their character-

istics with its shape and vegetation that adapted there. Part of the Albany Bulb, the redeveloped area is under the management of the McLaughlin Eastshore Park, and the more organic and underdeveloped terrain, at this point, is still left to the more spontaneous use and reshaping by its visitors. This allows a comparison of two almost opposite types of use and management styles in a relatively the same area that is visited by the same local residents. That fact helps to better test the expectations, needs and opinions of local residents about restorations of degraded areas, and which direction it should follow.

METHODS AND RESEARCH

Research methods included: literature review about contemporary landfills, design strategies related to development of dumpsites and their conversion into recreational parks; studies of the Albany Bulb's history, cartography and its restoration, as well as public access projects; interviews with Susan Moffat from Love the Bulb – nonprofit organization.

An important part of the study was a review of both the user-made and state government sanctioned functional and spatial management of the terrain. During several onsite visits (from March 2018 to November 2019) analysis and documentation of architectural forms and art creations in the Albany Bulb were performed.

DEVELOPMENT OF LANDFILLS IN THE UNITED STATES

Currently, the idea of transforming urban wastelands into the public parks is the most common and most likely, due to the following two reasons: (1) stabilizing the ground for a purpose of recreational activities is simpler and less expensive, as it does not require extensive architectural and engineering solutions, and (2) planting selected type of vegetation on an additionally placed layer of soil may assist in neutralizing the gases and toxins emanated from the unsuitable load. If the cost must be considered – former dumpsites' land is less expensive and frequently a local government would assist with the costs of such redevelopment. Still, the expense and associated efforts

with project of that type are high. In 2017, Center for City Park Excellence (United States) estimated the average cost of redevelopment of former landfill at 300,000 USD per 0.4047 ha (Harnik, Taylor & Welle, 2006). The first two parks that were created over the former city dump sites in the United States were in the state of Washington: Rainier Playfield at the site of Rainier Dump in Seattle in the year of 1916, and Washington Park Arboretum at a 10 ha Miller Street Dump in 1935. The latest that type of park (890 ha), which is already partially open, is slated for completion in 2037 in the Fresh Kills Park at Staten Island (Lippard, 2016).

LOCAL PERSPECTIVE IN SAN FRANCISCO BAY AREA IN CALIFORNIA

Coolidge (2013) points out that the area surrounding the city of San Francisco, as the most rapidly developing region of the West Coast during the mid-20th century, produced an enormous amount of trash, which remained in the region. It applies to a wide area of the city of San Francisco, where parts of it were constructed on successively expanded and reinforced terrain, such as Marina District or parts of its downtown, as well as in East Bay cities like Oakland, Berkeley and Richmond to an even a greater extent. Several hills around the San Francisco Bay are in fact a waste dump mounds reaching the heights of up to 61 m.

Since 2003, The Center for City Park Excellence (CCPE), a branch of San Francisco based Trust for Public Lands (TPL), has been conducting a research on urban green areas development and campaigning for transforming landfills into city parks. CCPE promotes a planned development of each of the landfills that incorporates utilization of the waste potential to generate revenue and subsequently supports the parks; for example, creating an infrastructure that would allow exploitation of the emitted gases from decomposing materials, as it is in a case of methane diversion from St. Jones Landfill in Portland, Oregon to a nearby cement factory.

According to the United States Environmental Protection Agency (EPA), 3,500 landfills were closed in the United States after 1991; the earlier figures are unknown. Since November 1991, several legislative

measures were introduced to regulate how the landfills were constructed, which is enforced by the EPA:

- landfill owner is responsible for placing layers of clay (45 cm) and “vegetated earthen material” (15 cm) within a 6-month period following the closure of the landfill to ensure prevention of water infiltration;
- a layer of stones or a synthetic material is required to prevent the animals from excavating the site;
- a ventilation system for emitted gasses has to be installed and a monitoring of ground water quality has to be performed for the following 30 years;
- in an instance of soil or ground water contamination, the owner is responsible for repair or decontamination of the site; this is supported by a federal law that allows to impose fines (Harnik et al., 2006).

According to Harnik et al. (2006), a specific plan that considers a long-term vision should be developed as a collaborative between environmental engineers, landscape architects and representatives from municipal landfills ahead of the first trash delivery to the waste site. The distance between the soil walls of waste storage cells is dependent on the planned future use of the area. This allows for a future creation of an adequate pipe system, infrastructure or sub-terrain structures that would effectively support the above the ground construction.

Currently, implemented regulatory requirements do not prevent other serious consequences, in particular in the case of older landfills, where there might not be a proper, formal or full documentation in existence to determine the risk level. The damage due to not following the established and recommended ecological norms and illegal storage of toxic materials are only apparent after several years. The most common issues are destabilization of grounds and toxic materials leakage.

As recent as in 2002, the information was disclosed that the toxins from the Marina in Berkeley (an old deposit of municipal waste that was transformed into a recreational area) leaked into the East Bay. In Cesar Chavez Park in Berkeley, the overgrowth of Ground Squirrels population became a problem: the rodents began to damage the waste cells that secured the municipal trash, consequently allowing the toxins to seep into the bay (Jakhia, 2014).

DESIGN STRATEGIES IN THE LANDFILLS AND POSTINDUSTRIAL SITES

There are various opinions about the current urban landfills and their potential, which is dependent on the direction for their future. Lynch (1960) and Heidegger (1977) support the idea of defining wastelands as presumably valueless sites that retain their potential, while they are held unused without incurring any concurrent cost. Others view them as a never-ending toxic threat as a result of an inaction that has destroyed the environment for the years to come. Usually, the dilemma is whether to proceed, and then who and how. Majority of the projects are supported by the local governments or state initiatives. Various opinions on the transparency about the history of the space dictate the direction of the development – hiding the past of it as a dump site, or underline its harsh origins.

When describing restoration of industrial sites and landfills, de Solá-Morales Rubió (1995) points at a “weak design”, suggesting utilization of existing materials and intricacies connecting the sites with the past usage. A valid example of such process is Nature Park Schöneberger Südgelände in Berlin designed by Planland/ÖkoCon, where the rail tracks were left next to the new transportation pathways. Duisburg-Nord Park project by Latz&Partner from 1991 is taking the idea even further by creating post-industrial romantic ruins, where the old steel mill buildings are integrated into the concept of a garden space and a place of various cultural events. Such an approach has several opponents, who criticize this lenient attitude to those postindustrial remnants, frequently resulting from unfortunate human activities that posed a threat to the environment, they are now transformed into objects that are somewhat glorifying their past. Such a screenplay approach to revitalization of the landscape was criticized by Czerniak and Herrington (Czerniak, 1998; Herrington, 2006), however, the new inhabitants and users of those landfills and postindustrial relics prefer such style that is in contrast with the dense urban fabric. Kullmann (2017) attributes the popularity of a former city dump in Albany Bulb, California, to its romantic charm of a wild place as in an “island of adventures,” where one can avoid the routine and regulations of the nearby urban life.

A FORMER LANDFILL IN ALBANY BULB

The area under the study is a former landfill: Albany Bulb. It is located in Northern California, on the eastern shore of San Francisco Bay (known as East Bay), where the Buchanan Street in Albany terminates by the coastline. The core part of this area is under administration of the City of Albany and the rest that includes the extensive land with its beachside, is under the management of East Bay Regional Park since 2002. This 12-hectare artificially formed, bulb-shaped peninsula formation that jets out into the bay towards the city of San Francisco, reminds other, much larger natural land formations in the bay, such as Marin Headlands or Tiburon Peninsula. It certainly incorporates itself well into the jugged shoreline of the East Bay that was affected by industrialization. Following Wowrzeczka's (2019) concept, Albany Bulb in California could be classified as an artificial form that imitates the nature, meaning, that it assumes the shapes of surrounding landscape.

Based on the type of debris deposited at Albany Bulb, it appears innocent in the context of other landfills in East Bay. The term debris rather than trash is

more descriptive and closer to reality of the materials that formed the peninsula. The “body” of this creature was formed by deposits of various materials from the early sixties to 1983: construction and demolition debris, rocks, bricks, concrete slabs, asphalt, rebar, steel, rubber, clay and landscaping or garden waste. In the 1970s, the City of Albany supervised this project (Rimov, 1969) and it resulted in creation of a bulb-shaped formation that could be divided into three parts: an uneven, oval form (called Bulb), a leveled off, higher grounds (called Plateau), and a narrow connection (called Neck – Fig. 1). Subsequently, the entire peninsula took on the moniker the Bulb. In the mid-1980s, the Bulb, due to the protest by nearby residents, was closed off for the next wave of dumping and ultimately, it became an unrealized investment.

During the next 10 years, beside some small fires due to the aggregation of methane, no major issues were noted in this area due to old debris. Large blocks of concrete started to erode partially, the colored metal parts that were protruding from the ground and objects suitable for sale were dug out by entrepreneurial citizens. Under the influence of a mild, warm climate with frequently occurring fog, the area at large was soon

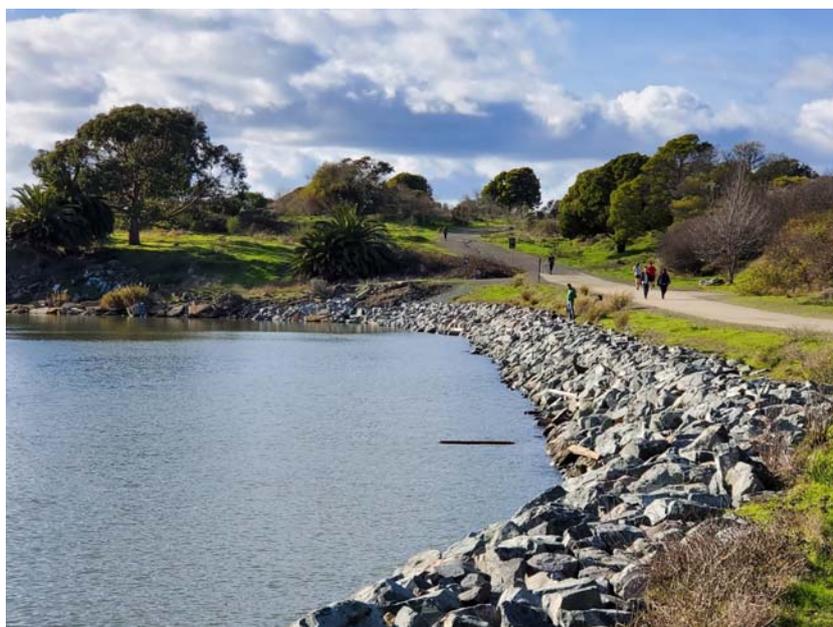


Fig. 1. Southern shoreline of Albany's “Neck” with rock reinforcements. At the end of the asphalt road McLaughlin East-shore State Park oversight ends (photo by K. Apolinarski, 2019)

covered with a patina of vegetation. Due its attractive views and relative uniqueness of nature (rare breeds of birds that inhabited the marshes, habitat of burrowing owl), part of the peninsula was incorporated into the Eastshore State Park, which has recently become the McLaughlin Park. In the early 1990s, the vegetation flourished so well the it formed a natural shield from wind for the neighboring areas and allowed for basic shelter, which resulted in a gradual inhabitation by homeless. Under the pressure of local residents and organizations, such as the Sierra Club and Citizens for Eastshore Parks, City of Albany evicted the squatters with use of incentives in 2014 first and subsequently use of force by the local police squads in 2015 (Mof-fat, 2015).

From 2008 to 2010, social studies were conducted that aimed at defining preferences of city of Albany citizens in regards to the plans for Albany's shoreline redevelopment, which included the Bulb. Fern Tiger Associates, who conducted the studies, concluded that 62% of the residents supported an expansion of the park areas with an additional development to increase the access to the shoreline. Another preference was to connect it with the neighboring Golden Gate Fields (former horse racetrack), existing parking area and Eastshore State Park. At the same time, 80% of respondents expressed interest in an idea to build a hotel at the site with some type of additional commercial development, which would have a positive impact on the city tax base and its budget. In 2012, East Bay Regional Park District commissioned Questa Engineering Corporation to conduct a beach restoration project. This revitalization project plan was open to the public for comments and review from July 11 to November 5. The input contained 14 comments from public, state, regional and non-profit entities and 17 letters from companies and private persons (Questa, 2012a).

The variety, as well as the general profile of this former landfill users and the additional variability in their interests is best characterized by a list of nonprofit organizations, which placed their interests and activities in this area. Some of the organizations that represented their interests at the hearings were Sierra Club San Francisco; Sustainability, Parks, Recycling and Wildlife Legal Defense Fund; Citizens for East Shore Parks; Jewish Youth for Community Action; Albany

Landfill Dog Owners Group; Point Isabel Dog Owners Association; and Golden Gate Audubon Society.

One of the reasons behind Albany Bulb's popularity among the local residents is its nature, which makes an impression of being relatively "wild". Over the past few decades, various plants started to grow there due to several forces of nature and human hands. Among the most popular were acacia, eucalyptus and date trees, which are in a mature form now. From the brushes that covered the construction rubbles and debris, among the visitors' favorites are Himalayan blueberries, wild anise and a variety of grasses and flowers. According to the research conducted by Chu (2009), this area became a habitat for plants of which 65% are not native to this region of California. Some of the reasons could be the fact that those "foreign" species had developed a greater adaptability, some of them were possibly left there as a part of a landscaping waste that was deposited, and some could have been planted by people who intermittently inhabited or visited this unregulated area since 1995. Among many of the animals that began to inhabit this area, the most significant are about 175 land and water bird species. Rodents, in particular the ground squirrel, adapted at the Bulb quite well, but snakes could also be seen. Among the animal visitors, dogs are the most frequent and they make a natural connection between "wild" Bulb and the civilization.

ALBANY BULB – STATE PARK AND EXPERIMENTAL ADULT PLAYGROUND

The location of Albany Bulb in itself creates a feeling of duality of this place that is suspended between the industrial fabric of the city and the nature. A primary view from the northern shoreline is of wetlands with rare plants and various species of birds; in the background, a landscape transformed by industrialization. Towards the south and south-west, downtown of San Francisco with its landmark skyscrapers, Bay Bridge and city of Berkley are seen. Veering more towards the west, Golden Gate Bridge is visible in its entirety. Therefore, the view in itself draws people to this area. When adding the value of an opportunity for much less restrictive behavior due to limited administrative oversight and lack of effective policing, an attractive and rare situational composition is achieved (Fig. 2).



Fig. 2. Dragon sculpture made of local materials. San Francisco office buildings' silhouettes in the background (photo by K. Apolinarski, 2019).

Artificially created Albany Bulb peninsula is divided into two zones: area developed by the State of California and under its management, and “semi-wild” terrain, where the visitors are its designers and

developers (Fig. 3). Organization of space, assigning it a function and adding architectural elements according to the needs are noticeable in both of the areas. From the McLaughlin State Park perspective, environmental

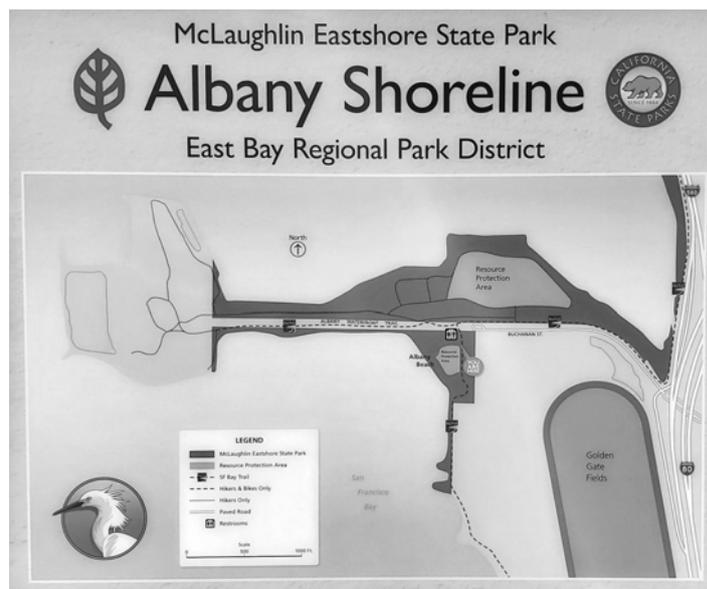


Fig. 3. Map of Albany Bulb. McLaughlin Eastshore State Park's area shaded in dark gray (photo by K. Apolinarski, 2019)

protection and safety are the priorities. The remainder of The Bulb, the less controlled one, is governed more by the idea of experimenting with the “wilder space” for the temporary needs of its designers. Contrary to the McLaughlin State Park’s approach, here the idea of functionality is not connected to the place or an object, but merely a suggestion that is open to interpretation. Park’s borders and its rules are clearly defined. In the Bulb, visitors select their paths based on their spontaneous choices, they may chose ones that have a destination or those which suddenly end (Kullman, 2017).

The entire area of the Albany Bulb, shows signs of years of use and recreational exploitation – it spontaneously adapted to the needs of the local or regional residents, who began to use this area for diverse forms of recreation, respite and art creativity, dog owners, nature lovers and many others who were taken by the wildness and beauty of such a place and wanted to leave their mark there. In this regard, the Bulb is an enormous experiment in grassroots movement in organizing and revitalizing a destroyed space. All along, the development of this place was a convergence of a classical approach to restoring a former landfill into a park-like order with an idea of a “weak” design, that supported directed this area into a space of free creativity.

“ROMANTIC” BULB: SPONTANEOUS ARCHITECTURAL FORMS AND ART

Albany Bulb as a giant industrial and construction debris waste site served as a source for free building materials to the local community. Large amount of those materials was removed by squatters and used to build shelters or simply were sold to others. To this date, there is still an evidence of some remnants of local “construction” from the past: “flooring” created out of laid out bricks, where people put up tents and shacks, built their makeshift places for cooking, as well as for entertainment or education (informal society residing at The Bulb created a simple library that was open to all). Among other, a study of this area was conducted by an interdisciplinary group comprised of students and scientists from Global Urban Humanities at University of California in Berkeley. During the three-year-long

study, archeologists, landscape architects and historians mapped the terrain, inventoried and named the locations of the shelters, materials available and utilized, plants, objects of spontaneous art, etc., hence, creating a collection of information titled “Atlas of the Albany Bulb” (Moffat, 2015).

Several purely architectural structures are in existence in the Bulb, with the most recognizable being: (1) Amphitheater – adapted for meetings of larger groups, small dance performances or occasional theatrical works, (2) Mad Marc Castle, and (3) a structure in the Amphitheater, that reminds a Land Art form – a central, stone structure/composition in a circular arrangement that is called Labyrinth. In addition, several examples of spontaneously built small architecture are placed in the area: benches (Fig. 4), sitting places (Fig. 5), stairways, swings, etc. All of these structures are located in places based on a practical approach to its function, such as locating a sitting place that is in an area shielded from the wind, as it indicates an understanding of the value of each of those locations. From some of the benches, there are expansive views of the bay, downtown San Francisco or the Golden Gate Bridge, which denotes a landscape sensitivity and spontaneity of its creators.

As a grassroots movement, dictated not by a practicality anymore, but by a need to express itself and by a core trait of human creativity, art appears quite commonly at Albany Bulb. The most profound and spectacular objects are the large-scale sculptures created from the materials procured from this actual landfill. Few of them have recognizable authors, such as Osha Neumann and Jason DeAntonis, who created the well-known Beseeching Woman (Fig. 6) and other large sitting and standing nearby figures. Many of the sculptures remain anonymous.

The area that is covered with concrete slabs or blocks became a paradise for graffiti lovers and creators. During each visit to The Bulb, new graffiti works can be found, which are a testament to the constant human need to create.

Susan Moffat, researcher, aficionado and an animator of the culture at the Albany Bulb, created a non-profit organization called Love the Bulb. The organization supports grassroots as well as organized creativity movements, builds a discussion platform about



Fig. 4. Bench created by visitors from wood found at Albany Bulb (fot. K. Apolinarski, 2019)



Fig. 5. Park's small architecture forms built in fall 2019 (photo by K. Apolinarski, 2019)



Fig. 6. The Bulb's gallery area with large sculptures. *Beseching Woman* by Osha Neumann and Jason DeAntonis (fot. K. Apolinarski, 2019)



Fig. 7. The Bulb area. An artist creates an art form for Bulbfest Art Festival (2018). In the background is Golden Gate Bridge (photo by K. Apolinarski, 2019)

urban planning, ecology and ethics. Moffat organizes the Bulbfest Art and Dance Festival, with an ambition to become an ongoing cyclical event, which promotes ephemeral creativity in this strange, reclaimed for culture place (Fig. 7).

SENSIBLE PARK: LONG-TERM PLANNING AND SAFETY

East Bay Regional Park District (EBRPD) in the Albany Bulb peninsula currently manages the Beach, Neck and Plateau, as part of McLaughlin Eastshore State

Park. Mostly, a division between two types of development is visible: park-like restorative and structural work within the state park and grassroots development of the core area of the Bulb. The city of Albany has plans to prepare the Bulb for transition to management under EBRPD, however, there are many opponents. The presence of a state park on the site of a former landfill ensures safety, protection of the environment, relatively stable budgetary support and involvement of the local community in the long-term planning. The park's infrastructure improves accessibility to the entire area. According to the official plans (Questa,

2012b; East Bay Regional Park District, 2017) the key components were:

- Infrastructure: prevent polluted urban runoff from entering San Francisco Bay through “rain garden” drainage features; replace asphalt (64% reduction) with natural landscaping and expanded dune area; construct drought tolerant landscaping to eliminate need for permanent irrigation.
- Climate Change: address beach erosion and prolong life of the sandy beach and dunes; address existing flooding at the park entrance; construct parking, dunes and site furnishings to withstand 2050 sea level rise projections.
- Bay Trail: connect the Bay Trail between Buchanan Street and Gilman Street, cliff face crossing over Fleming Point via a retaining wall and bridge structures; provide overlooks and elevated panoramic views of San Francisco Bay.
- Habitat Restoration: restore and expand dunes and seasonal wetlands (~ 0.4047 ha), establish native dune and wetland plants, provide interpretive and educational opportunities to interpret natural resources.
- Parking: 20-car lot with non-motorized watercraft drop-off.
- Furnishings: construct restrooms, picnic tables, seating (Fig. 5), environmental education panels, bike racks, and overlook (East Bay Regional Park District, 2018).

SUMMARY AND DISCUSSION

Current use and development of the entire peninsula demonstrates a positive symbiosis between the areas under the state park’s management and “semi-wild” areas of the Bulb that were spontaneously developed by its users. Both areas are popular and complement each other and are used alternately.

Architectural structures and examples of small architecture demonstrate a human natural ability to adapt the environment to their needs, organize space and give them a function. Utilization of deposited materials, such as structures, trash, and landscape in itself, shows that recycling in broader terms just might be a never-ending process of land restoration, materials reclamation and revitalization, which when coupled

with today’s technology, may shape our philosophy on diminishing exploitation of new natural resources and direct ourselves more towards formerly used materials and seemingly unusable lands. Albany Bulb and associated with it grassroots social, ecological and cultural movements and organizations, teach us that a place which was created from byproducts of civilization, consumption and industry, may just become an educational example of how it results in changes in environment based on irresponsible human activity. Value of the nature and landscape of this place that was noticed by its visitors and users also led to a state and city protection of its most treasured areas. Grassroots (“romantic”) and state (sensible) efforts to develop the space both infiltrate and complement each other at the same time, creating a comprehensive offer for local residents that became so much more than the one of a conventional city park.

This area of a former landfill was transformed in a natural way into an experimental, democratic and public space. Despite the visible differences between the needs and opinions of its users, Albany Bulb gives and advise and manages to bear those differences. According to Moffat (2016), “this place has a lot dysfunctionality, but also has a vitality, which can be envied by various professionally designed spaces.”.

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PÓŁWYSPOWE SKŁADOWISKO ODPADÓW JAKO EKSPERYMENTALNE WYKORZYSTANIE PRZESTRZENI. STUDIUM PRZYPADKU ALBANY BULB

STRESZCZENIE

Artykuł stanowi studium przypadku byłego składowiska śmieci w Albany Bulb w San Francisco Bay Area w północnej Kalifornii. Badany teren jest przykładem zagospodarowania „zamrożonych rezerw” terenu zdegradowanego, zainicjowanego poprzez oddolne działania lokalnej społeczności. Obecne zagospodarowanie przestrzenne tego obszaru łączy cechy zagospodarowania instytucjonalnego nadzorowanego przez McLaughlin Eastshore State Park oraz cechy spontanicznego „półdzikiego” użytkowania przez okolicznych mieszkańców, często zrzeszonych w grupy zainteresowań. Obszar ten jest eksperymentalnym placem zabaw dla dorosłych. Jego popularność dowodzi popytu na alternatywne parki miejskie, w których to użytkownik jest współtwórcą i wykonawcą modeli zagospodarowania. Artykuł odnosi się również do kampanii the Center for City Park Excellence w San Francisco na rzecz przekształcania składowisk śmieci w parki rekreacyjne i tworzonych przez organizację regulacji, które pomogą w efektywnym wykorzystywaniu potencjału gromadzonych odpadów.

Słowa kluczowe: składowisko odpadów, oddolne ruchy społeczne, rewitalizacja, przestrzeń kształtowana przez użytkownika, alternatywne parki