

MAKING THE INVISIBLE VISIBLE

OLYMPIA'S ARTESIAN WELLS AND PUBLIC SPACE DESIGN

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Figure i. Artesian Well #46. (Image credit: Jason Taellious / Dreamsjung (2011))

University of Washington

ABSTRACT

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Once a ubiquitous source of drinking water, today the majority of Olympia's free-flowing artesian wells are all but forgotten. Only a few of more than ninety-six historic wells have not been capped, diverted into the sewer or stormwater system, or permanently decommissioned. The neglect, loss, and deliberate destruction of Olympia's artesian wells have erased a critical part of the city's history and thereby denied an important connection between people and the ecological systems that sustain them. This thesis proposes to heighten awareness of artesian water at multiple scales through design of a series of interrelated interventions. This project demonstrates how Olympia can reconnect with history, strengthen identity, and draw people's attention to interwoven ecological and social narratives that can establish new purpose and meaning for Olympia's public life.

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PREFACE

“The well is a place and an event.”

- Jim Ingersoll, 2013

I first encountered Olympia's artesian water while walking through a downtown parking lot in 2006. Curious about a crowd gathered at one side, I walked over and discovered a group of people laughing and chatting as they filled containers with water which flowed continuously from a pipe that stuck up out of the asphalt. The group included a spandex-clad biker heading out on a 16 mile ride, a mother with her three young children, an elderly man with a pickup truck full of large plastic bottles, a pair of scruffy looking veterans, and ... me. Listening to the chatter I realized that this water was more than just a source of refreshment. It had the ability to collect people together in a neutral space where different backgrounds and philosophies didn't appear to matter. This water source encouraged story-swapping and laughter and built connections between the people gathering there. The water was powerful because it was fundamental to everyone's needs, and it was a common resource. I also learned that the water was special for other reasons as well. It was free-flowing, non-chlorinated artesian water over one thousand years old. Furthermore, "there used to be wells all over the place," according to one of the veterans. When I asked what happened, people weren't sure, but they all agreed how sad it was that even the few remaining artesian well sites were threatened with extinction. This conversation initiated my exploration into the questions surrounding Olympia's artesian water: what it was, where it came from, which stories were true and which false, why the wells were disappearing, and so on. Although I didn't realize it at the time, my thesis probably began during that first conversation, three or four years ago.

Exploring these questions through research was incredibly challenging, fascinating and, quite simply, fun. I felt like a sleuth as I followed old surveys to seek out former well sites in alleys and overgrown banks of ivy. As I spoke with water resource managers, hydrogeologists,

members of artesian water advocacy groups, parks department staff, and locals collecting water at Artesian Well #46, I recognized what a unique opportunity for civic enhancement could be found in Olympia's artesian water. Not only could the water help to reveal the city's history, but also a variety of social narratives constructed over the past one hundred years, and even the ecological foundations of the water itself.

This thesis project represents an intensive, six-month-long exploration of urban public space design that celebrates the historic artesian wells of Olympia, Washington. The insightful observation of Olympia resident Jim Ingersoll, quoted at the beginning of this preface, established my starting point and ultimately guided my work throughout the entire thesis project. I also came to recognize that artesian wells are not merely a source of water; they are a powerful source of community-building, story-sharing, and stewardship.

ACKNOWLEDGEMENTS

I must first express sincere gratitude for my incredibly insightful and dedicated thesis committee members: Nancy Rottle and Jeffrey Karl Ochsner. Their patience, enthusiasm, and thoughtful guidance made the thesis process one of the most rewarding and gratifying educational experiences I have had.

I would like to thank my family and friends for their patience and unfailing faith in my work, particularly when I doubted myself. My mother contributed wonderful insight during my writing process that I appreciate greatly. My husband Andy deserves special recognition for his unconditional love, patience, and support over the past three years of my graduate studies. I could not have reached this milestone without him.

Many people in Olympia helped to guide my work and answer countless questions throughout the thesis process. Special thanks go to Nadine Romero and Jim Ingersoll for their generous contributions of wisdom and time.

Finally, I want to thank past members of the now-disbanded Friends of Artesians group and those still active in H2Olympia for their tireless advocacy on behalf of Olympia's artesian water. Without their vision, passion, and commitment, Olympia's special artesian wells might have been lost forever.

DEDICATION

This thesis is dedicated to the work of community advocates who see the beauty of natural phenomena when others fail to do so, and who commit their time, energy, and vision to safe-guarding treasures such as Olympia's unique artesian water, ultimately benefitting us all.

CHAPTER 1

MAKING THE INVISIBLE VISIBLE:
OLYMPIA'S ARTESIAN WELLS AND PUBLIC SPACE DESIGN

CHAPTER 1

MAKING THE INVISIBLE VISIBLE: OLYMPIA'S ARTESIAN WELLS AND PUBLIC SPACE DESIGN

Once a ubiquitous source of drinking water, today the majority of Olympia's free-flowing artesian wells have been forgotten. All but a few of the more than ninety-six known historic artesian wells have been capped, diverted into the sewer or stormwater system, or permanently decommissioned. Recovering a connection to artesian water presents a unique opportunity to redefine Olympia's public space and strengthen the city's relationship with its history, its culture, its natural history, its water, and its people.

Water has always helped to define the character of Olympia. From Olympia's early role as a Coast Salish hunting ground to its development as a port town at the turn of the twentieth century, water has greatly influenced Olympia's economy, history, and culture. Free-flowing artesian water occupies a pivotal role in this story. Initially a source of drinking water and a resource for developing industry, artesian water became a major part of the city's identity when the Olympia Brewery Company coined its famous slogan "It's the Water." Over the last one hundred years the artesian wells became a focus of contention as Olympia struggled to reconcile new water resources, public health regulations, and public access to artesian water while the wells began to disappear.

The neglect, loss, and deliberate destruction of Olympia's artesian wells have erased a critical part of the city's history and thereby denied an important connection between people and the ecological systems that sustain them. This thesis proposes to establish new meaning in Olympia's public life by heightening awareness of artesian water at multiple scales using a series of interrelated design interventions. The proposed interventions include a series of markers for all ninety-six known sites, a series of linkages and associated narratives for a smaller group of well sites, and a design proposal for the central site, located in the heart of downtown Olympia. This thesis demonstrates how Olympia can reconnect to its history, strengthen its identity, and draw people's attention to interwoven ecological and social narratives in creative ways that enhance civic life and encourage a stewardship ethic.



Figure 1: Study model of Olympia's historic artesian well sites . View looking north across downtown Olympia, with Capitol Lake at lower left.
(Image: Puget Sound LIDAR consortium)



Figure 2: Aerial view of Olympia looking north into Budd Inlet.
(Image: City of Olympia GIS Basin Analysis 2010)

CHAPTER 2

CHARACTERIZATION OF OLYMPIA

If there is magic on this planet, it is contained in water.¹

INTRODUCTION

This thesis begins with an exploration of Olympia's history in relation to artesian water. Starting with its early geologic development, the establishment of a new town, and the first artesian water narratives, it proceeds to examine the science of artesian water and why Olympia is a place of significance from the perspective of water. Olympia's more recent history follows, with special emphasis on social narratives and the fate of its artesian water in the last 100 years. Exploration of the advocacy groups that emerged while well sites disappeared, the challenges to establishing a public artesian well site, and the meaning of artesian water as understood through a cultural lens reveals the current state of Olympia's relation to artesian water. In the conclusion to this section, critical themes are revisited to allow deeper consideration of Olympia's history and artesian water narratives. These themes reveal rich opportunities for a refined relationship between Olympia and artesian water. A new conception of public space emerges, with artesian water as inspiration and foundation.

1. Eiseley, Loren C. *The Immense Journey*. New York: Random House, 1957, p.15

01.00 AN EARLY HISTORY OF OLYMPIA: AN ACCOUNT OF DREDGING, FILLING, AND WATER

The state capital of Washington, Olympia is located at the confluence of the Deschutes River and Budd Inlet. Together they form the southern-most tip of western Washington's inland sea, Puget Sound. (Figures 3 and 4) Olympia is situated between Portland to the south and Seattle to the north. In 2013 the city had over 45,000 residents and the adjacent cities of Lacey and Tumwater contribute an additional 55,000 people. Olympia attracts over half a million visitors annually, and three colleges are located within a four-mile radius of the downtown area- The Evergreen State College, St. Martin's University, and South Puget Sound Community College (Heartland 2010). Olympia is a dynamic small city with an active maritime economy and state government, as well as diverse arts and music culture. It also has a fascinating history that can be told through hydro-geologic, economic, or cultural narratives; each of these reveals Olympia's unique relationship to artesian water. This relationship is best understood by tracing its history, beginning with the formation of Budd Inlet, south Puget Sound, and the birth of Olympia in the 1840s.

01.01 GLACIERS, RIVERS, AND TRANSFORMATION

Budd Inlet was formed approximately 13,000 years ago, at the end of the last Ice Age, with the retreat of the last glacier. Named after Lt. Thomas Budd, an early explorer, Budd Inlet is a somewhat shallow body of water that averages 27 feet in depth and just under a mile wide along its 7 mile length (Dodge 2009, 13). The estuary straddling the mouth of the Deschutes River and the southern tip of Budd Inlet was once an extremely productive shellfish and salmon fishing area. Ancestors of the Nisqually and Squaxin Island Tribes – the coastal Salish people – gath-



Figure 3: Aerial Photo, Olympia, 1928-1940, by Ellis.
(Image: General Subjects Photograph Collection, 1845-2005, Washington State Archives, Digital Archives, <http://www.digitalarchives.wa.gov>, 5/9/2013)

ered food in the estuary under tall forests of Douglas fir and Western red cedar for over 500 years prior to white settlement.

Jutting into Budd Inlet was a peninsula, which, at high tide, resembled the silhouette of a bear. It was known as “Cheet-woot” (bear) in the Nisqually dialect. The peninsula ended in a two-acre sandy spit that was the site of the first cabin build by Levi Lathrop Smith, who, along with Edmund Sylvester, each claimed 320 acres of land in 1846 . . . perhaps the most distinctive feature of Budd Inlet, and the one that served as an obstacle to growth and development of the young community, was the vast mud flats that encircled the peninsula, extending 1.5 miles from deeper water in Budd Inlet south to the Deschutes River Falls (13).

01.02 SHORELINE ALTERATION

The shoreline seen today is not the original shoreline, but reflects the impact of nearly 150 years of change. “In that early day, the salt water extended to Union Street. Clem Johnston said he used to walk logs across Union to get to the camp buildings which were in the vicinity of Plum and Pear streets (Sapp 1985, 99).” Early settlers viewed the mud flats as a serious problem: “This is the greatest drawback to the place,” the 1872 Business Directory said of the mud flats . . . “At high tide, the water is deep enough for any class of vessels, but at low water small boats even are left beached” (Newell 1985, 13). Local energy and ingenuity quickly focused on altering the shoreline to create a deepwater harbor to accommodate large ships and to build a stable maritime industry. Developing a port was a critical

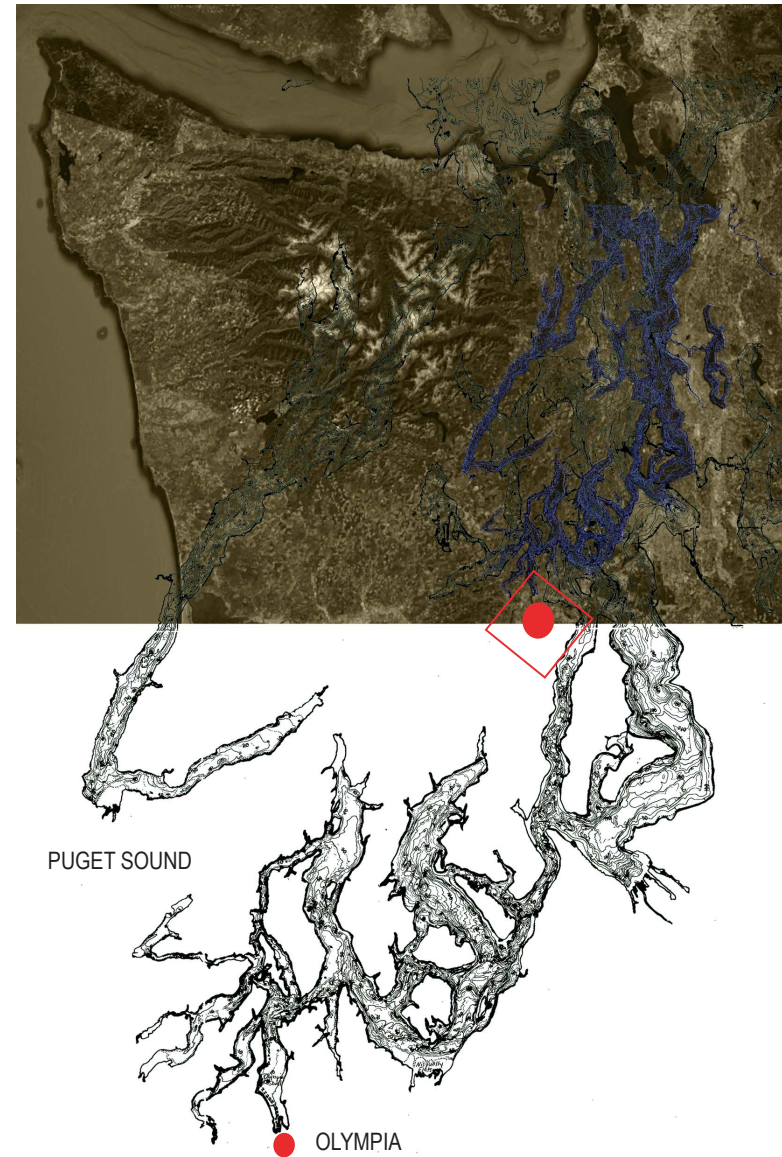


Figure 4. Context map for Olympia, Washington
(Base images: Google 2013 / NOAA Geophysical Data Center)

economic concern for the young town: “By the 1890s it became clear that for Olympia to be able to grow and compete with Seattle and Tacoma, deeper water became a necessity to support maritime industry (Dodge 2009, 14). As a result, dredging deeper channels and using the spoils as fill to build new land became a priority that actually continued until the 1980s. (Figure 8, at right) Major dredging and filling projects began in the late nineteenth century, and Olympia’s shoreline was permanently transformed: “The first major endeavor occurred in 1893-4 when the U.S. Army Corps of Engineers dredged the shipping channel along Fourth Avenue and deposited the fill material under the Fourth Avenue Bridge. By the turn of the century, the shellfish harvesting that had been so important to Native Americans in Budd Inlet was just an afterthought” (14). (Figures 5 and 6, below; Figures 7 and 8, at right) Typical waterfront activities such as logging, milling, garbage dumping, and the lack of a sewage treatment system turned the remaining tidelands into a polluted mess.



Figure 5. Indians Digging Clams on J.J. Brenners Oyster Co. Beds at Olympia, date unknown
(Image: Bullock, Jill. *Olympia*. Charleston, SC: Arcadia Pub., 2010, p.19)

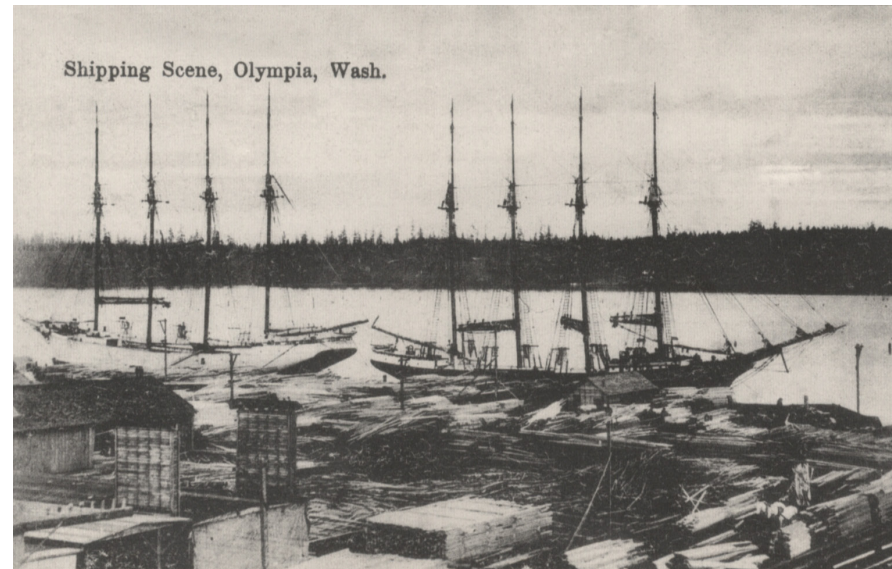


Figure 6: Olympia Shipping Scene Postcard circa 1909
(Image: Bullock, Jill. *Olympia*. Charleston, SC: Arcadia Pub., 2010, p.12)

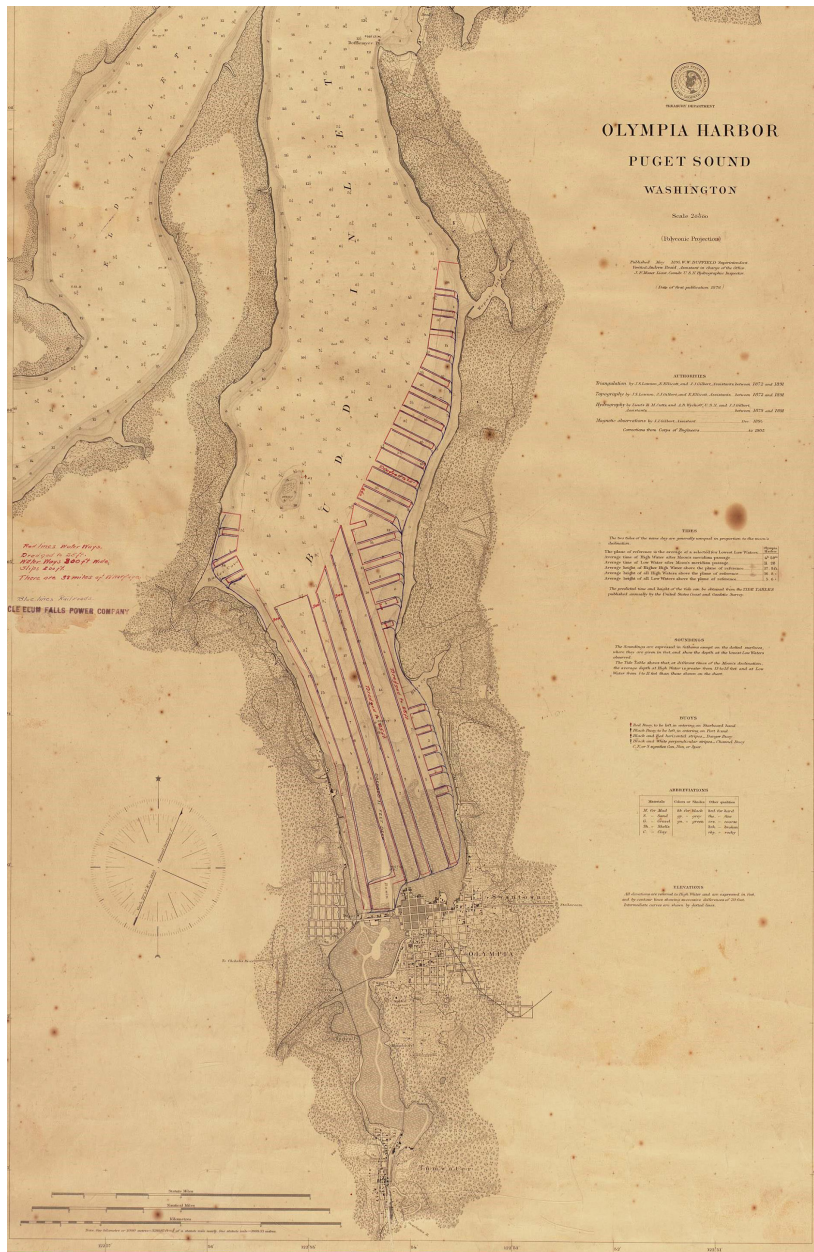


Figure 7: Olympia waterfront circa 1915
 (Image: Bullock, Jill. *Olympia*. Charleston, SC: Arcadia Pub., 2010, p.12)

Figure 8 (left). Dredging Map of Budd Inlet, 1895 (Olympia Harbor: dredged waterways outlined in red)
 (Image: United States Army Corps of Engineers, Engineer Office, General Map Collection, 1851-2005, Washington State Archives, Digital Archives, <http://digitalarchives.wa.gov>, [1-10-2013])

01.03 CREATION OF DOWNTOWN OLYMPIA

Much of the heart of downtown Olympia began as tideflat. “There were no bridges across the two arms of the bay for many years after the town had come to be quite a place, and from where Fifth Street now extends to Capitol Point was an unbroken line of Indian tepees and shacks. The entire portion of the town was comprised by the blocks between what is now the corner of Fourth and Main Streets down to the waterfront and before the filling was done the tide came up to Second Street” (Blankenship 1914, 111). From 1909 to 1911 approximately 2.3 million cubic yards of mud were dredged from the estuary where the Deschutes River, Moxlie Creek, and Indian Creek emptied into the toe of Budd Inlet. The material was used to create 29 city blocks and to begin what is now the Port of Olympia Peninsula (Dodge 2009, 15). Most of this peninsula, along with much of the flatter land in downtown Olympia, is thus completely the result of human intervention and is vulnerable to liquefaction (in the event of an earthquake) and to sea level rise as the climate warms and precipitation patterns change. The city’s proposed engineered response to sea level rise focuses on building flood barriers and installing tide gates to deal with open stormwater outfalls in the area (Coast and Harbor Engineering 2011, i-iii). The character of the fill is largely unknown; 1990 analysis based on test borings along the peninsula revealed “wood, bricks, glass, shells, and organics; the shells and organics may have been in the original tideflat soils. No hazardous debris was noted” (Pacific Groundwater Group (PGG) 2005, 8). Altogether, 434 acres of Olympia were created using dredging and filling operations, permanently changing the character of Budd Inlet and Olympia (PGG 2005, 5-7). (Figure 9, at right)

01.04 THE RAPID APPEARANCE OF OLYMPIA’S ARTESIAN WELLS

In the mid-to-late 1800s, drinking water for Olympia area residents was likely supplied by artesian springs. One especially popular community spring was located at the corner of 4th Avenue and Main Street (now Capitol Way), and was eventually buried under a building as the town developed. “Crowded in these few blocks were all of the buildings of the Town of Olympia, laid out by Sylvester in 1850 and incorporated as a town in 1859. . . . On the northeast corner [of Main (now Capitol) and Fourth] was the first water system in Olympia – a town pump where Indians and whites came to draw water and exchange gossip . . . Afterwards, the Chambers Building was erected on this corner and still stands there” (Sapp 1985, 91-2). (Figure 10) As was the case for many western American towns, the city’s early growth coincided with its prospects as a potential

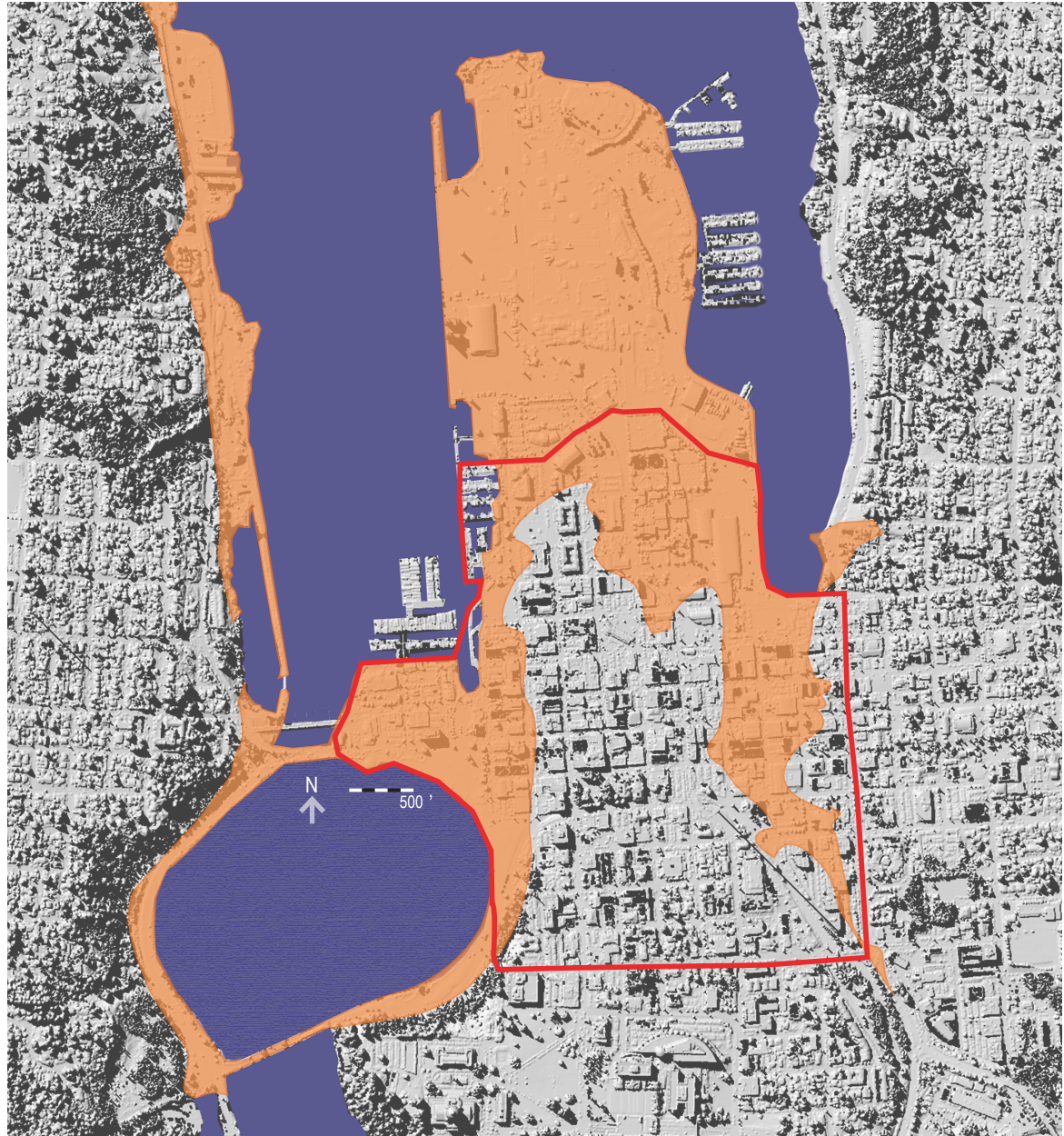


Figure 9 Fill map of downtown Olympia
(orange show approximate fill area;
downtown boundary in red)
(Fill boundaries based on City of Olympia data.
Base image: Puget Sound LIDAR Consortium)

railroad terminus site: “The prospect of the location of the Northern Pacific Railroad terminus at Olympia was the cause of considerable real estate activity in 1870 . . . A franchise was granted to the Washington Water Pipe Manufacturing Company to lay pipe and supply the inhabitants with water” (Blankenship 1914, 50). This telling quote reveals the entwined narratives of the railroads, Olympia’s first drinking water infrastructure, and city development. The City of Olympia describes this early development on its website: “When Washington became a state in 1889 with Olympia as the capital, the city grew and prospered adding amenities such as an opera house, city water system, street car line, street lamps, and a new hotel to accommodate visiting legislators” (2013). (Figure 11)

However, the tale of drinking water infrastructure did not end with the granting of a franchise. In the next decade - the late 1880s - another activity began in downtown Olympia: the drilling of roughly 100 artesian wells. The first artesian well was bored in 1885 for Talcott’s Jewelers, a shop that still exists in Olympia today (Friends of Artesians (FOA) 2012). (Figure 12) According to research conducted by Nadine Romero, Thurston County Hydrogeologist, early Olympia residents responded to a tax to build city water infrastructure by drilling artesian wells all across the downtown area (1997, 2-3). Others believe that the well boom was a response to the high costs of private water suppliers. It is likely that both of these theories are correct. Early Olympian residents simply dug their own artesian wells, many of which remained flowing even after 1949 when the City of Olympia constructed the McAllister Springs water system (FOA 2013). Sadly, the chronology of artesian well creation cannot be documented with certainty because most records for these wells were lost or never created in the first place. However, recent studies indicate that all of the wells were driven into the same artesian aquifer, which is located at least 90 feet (on average) below the ground surface of Olympia. The concentration of so many artesian wells in Olympia’s downtown suggests the remarkable natural phenomenon that is the artesian aquifer.

Understanding Olympia’s relationship to its landscape is important because it contributes to Olympia’s identity as a “water” town. Water has always been understood as an asset and a challenge; the Deschutes estuary on Budd inlet was an impediment until it was re-engineered to accommodate large ships and new buildings. The ready availability of artesian water added another twist to this growing town located at the confluence of fresh and marine waters. The narrative of the emergence of the artesian wells reveals an important independent streak in Olympia residents - one that continues to this day. Early residents were slow to adopt public infrastructure when a generous natural resource was so readily accessible – and free. Over time, Olympians cultivated a strong connection to water as “place” on numerous levels: on ecologic, economic, and social terms. The availability of free-flowing artesian water, artesian aquifers, and the boring of 100 artesian wells in downtown Olympia forever changed the character of the city and supported the evolution of its self-conception as a town where water matters.



Figure 10. Chambers Building at Fourth Avenue and Capitol Way, 1900-1910, (photographer unknown). (Image: General Subjects Photograph Collection, 1845-2005, Washington State Archives, Digital Archives, 5/9/2013)



Figure 11. Trainload of wooden water pipes, 1880-1920, (photographer unknown). (Image: General Subjects Photograph Collection, 1845-2005, Washington State Archives, Digital Archives, 5/9/2013)



Figure 12. First artesian well dug for Talcott Jewelers, 1885 (photographer unknown). (Image: Bullock, Jill. *Olympia*. Charleston, SC: Arcadia Pub., 2010, p.36)

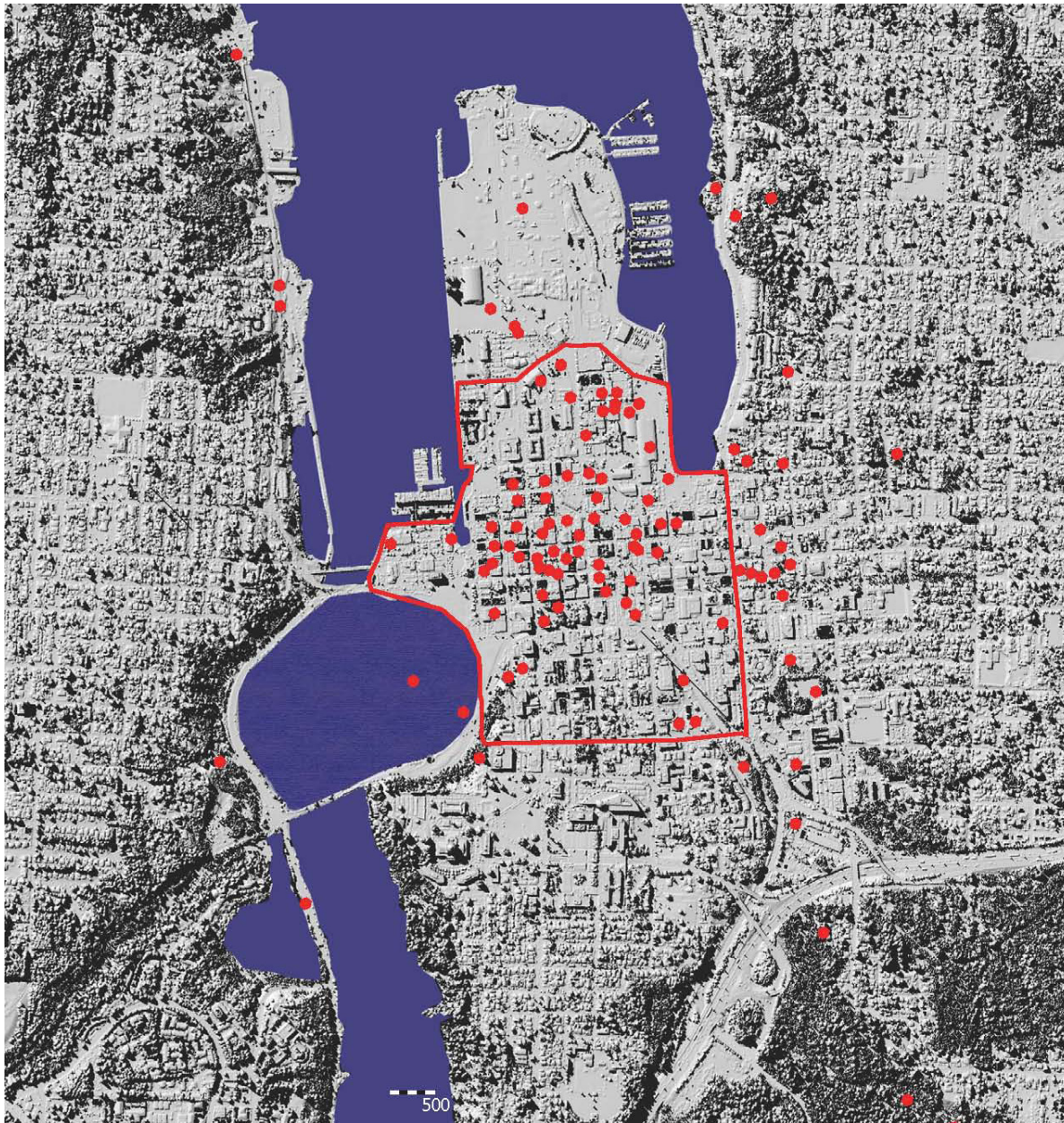


Figure 13. Map of historic artesian wells based on 1939-1943 city surveys of well locations. (Base image: Puget Sound LIDAR Consortium)

02.00 UNDERSTANDING ARTESIAN WATER

The concept of free-flowing artesian water is at once delightful, magical, and oddly humbling. How and why does ancient water simply emerge from the ground, shooting several feet into the air, in a seemingly endless stream of cold, clear water? In its conceptual model of Olympia's groundwater flow, the Pacific Groundwater Group (PGG) begins to explain this natural phenomenon:

Hundreds of years ago, fresh water infiltrated into soils on the surrounding glaciated uplands around downtown Olympia, percolated down into the Tumwater Sand unit, and began flowing toward Budd Inlet under the force of gravity. Some of the groundwater now wells up along the Deschutes River and Moxlie Creek, serving to maintain their baseflow. A greater portion of the groundwater flows on toward Budd Inlet and reaches depths of up to hundreds of feet below sea level. Beneath the bay, the water flows back up toward the surface to ultimately discharge into the salt water. Due to the high density of marine saltwater, fresh groundwater tends to discharge in a narrow zone along beach areas . . . However, the fine-grained lacustrine silt and clay aquitard that overlies the Tumwater Sand, throughout at least the southern end of the inlet, serves to retard the upward flow of groundwater from the deeper sediments, probably causing it to discharge farther from the mouth of the river and creek than would occur without the aquitard. Nonetheless, the groundwater eventually percolates slowly upward through the aquitard to discharge to the bay. (PGG 2005, 5-6)

As this quotation indicates, the water in Olympia's artesian wells - "free-flowing artesian water" - originates in a confined aquifer. Such aquifers are located between layers of impermeable sediment such as silts and clays, called aquitards. Within a confined aquifer, groundwater collects under pressure. The pressure results from the aquitard above, which forces water to discharge through limited, laborious paths into Budd Inlet (essentially creating a backlog). Pressure is also created because the water flows along a gradient from high elevation recharge areas downward to the lower elevation of the confined aquifer. The permeable recharge zone can be miles away from the aquifer and from any well sites bored into the aquifer. When a well is bored into an artesian aquifer, internal pressure forces water up the pipe beyond the elevation of the aquifer and ground surface. This pressure remains constant, so no pumps or mechanisms are required to ensure continual flow from a "free-flowing" artesian well. Maintaining natural artesian pressure limits the number of wells that can be bored into the aquifer. In Olympia, pressure remains high (Figure 14, overleaf).

The retardation of the groundwater flow by the aquitard creates a back pressure effect in the groundwater, so that

the head (potential energy) of the groundwater is several feet higher than both land surface and the saltwater level in Puget Sound. When wells are drilled through the aquitard into the Tumwater Sand aquifer, the groundwater finds an easier path to the surface and flows out of pipes to a height several feet above the land surface. This is the geologic phenomenon of artesian flow. Artesian wells once were found throughout downtown Olympia and provided a reliable water source for decades. (PGG 2005, 6)

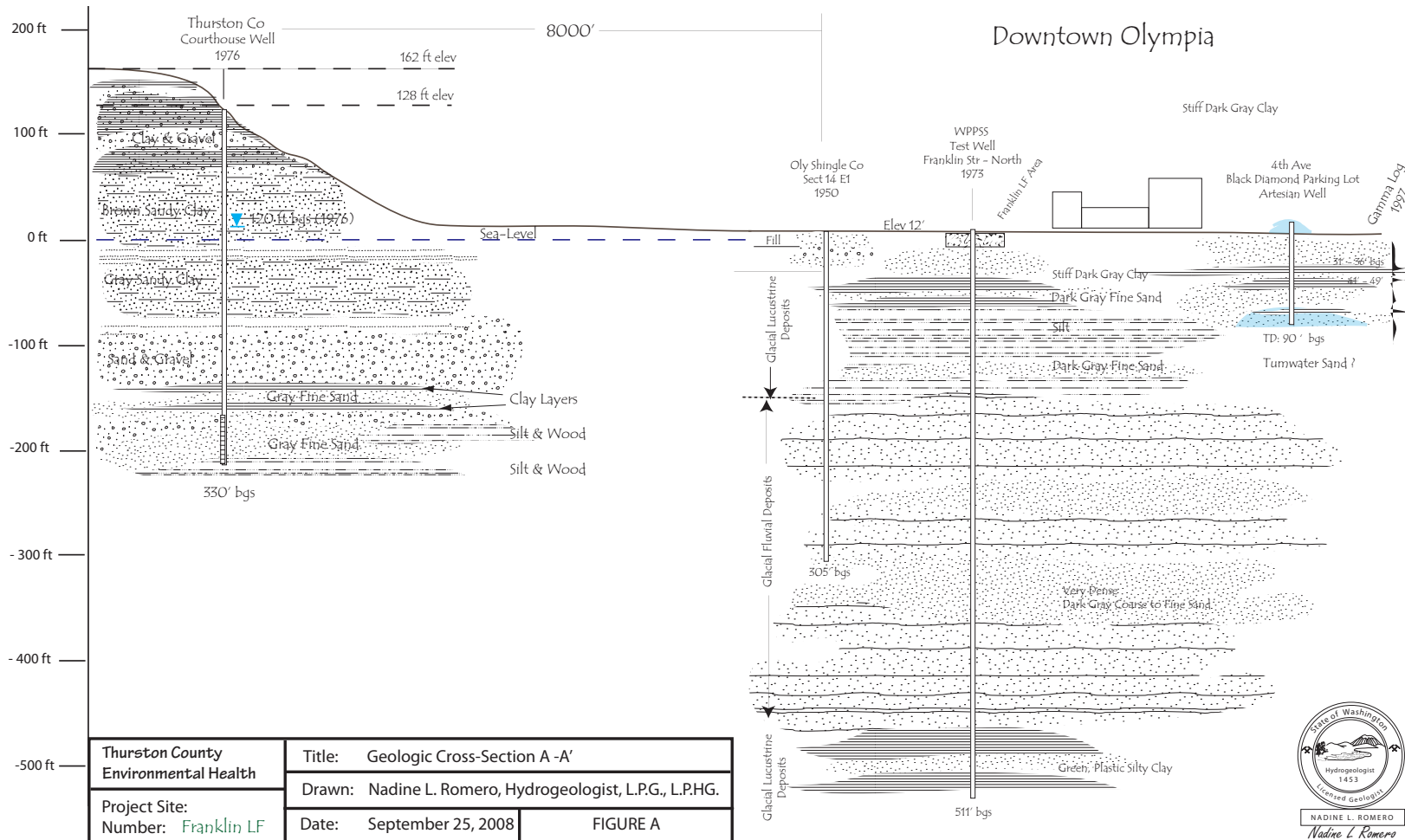


Figure 14. Geologic cross-section of Olympia.
(Image: Courtesy of Nadine Romero, L.P.G., L.P.H.G, Thurston County Environmental Health)

02.01 ANCIENT WATER

It is fascinating to consider Olympia's artesian water through the lens of geologic time, and to imagine what was happening when this water fell as precipitation onto the land surface. The 2005 PGG Study included carbon dating of water isotopes from Olympia's downtown wells: "the groundwater in the Tumwater Sands aquifer was recharged by precipitation long before European settlement of the Pacific Northwest." Furthermore, the report explains that "the distance from the recharge location and rate of movement will determine the age of groundwater at a particular point along a flowpath" (10). The study results indicate that Olympia's currently flowing artesian water is upwards of 1600 years old – and in some instances, over 3000 years old (10). It can be difficult to truly comprehend that this is the water that surfaces each day at an artesian well in a downtown parking lot. The age of Olympia's artesian water encourages the imagination, building links to place through time, and offers myriad opportunities to link people, ecology, place and history.

02.02 UNDERSTANDING ARTESIAN WATER AS A SYSTEM

The natural phenomenon of artesian flow is but one manifestation of water within the hydrologic system, where everything eventually returns to the ocean. Several interconnected systems affect the character of artesian water as it emerges from the ground. Exploring these interactions provides a window into the natural world, increasing understanding and also revealing its elegant nature. Among them, seasonal change increases or decreases the potentiometric level (the height of water above ground, resulting from changes in pressure) at an artesian well site. As a result of the Pacific Northwest's winter and spring rainfall, the degree of soil saturation and flowing groundwater also changes seasonally. The volume of water moving through these systems (groundwater, river and stream systems, and so forth) results in visible changes at the more intimate scale of the well site: the water rises higher during the rainy season. Similarly, tidal changes influence the discharge rates of artesian water:

Budd Inlet and its bays are shallow, so the confined aquifer extends underneath the bay, but is not directly connected to it. When tide comes in (rises), the aquifer material is compressed, which increases groundwater pressure, so that the water level in a well also rises. When the tide recedes, the opposite occurs. These groundwater oscillations do not imply a direct connection with the sea and the possibility of natural mixing of groundwater with naturally intruded (underground) seawater (PGG 2005, 6).

Exploring these interconnected systems enhances understanding of a particular place and its ecology. It shifts understanding from direct experience of a site to the relationship between site and ecological context, a powerful tool for promoting ecological awareness. By revealing the interconnections between artesian water and the rest of the natural world, it is possible to make apparent how “place” can be understood through the manifestation of interacting systems. This area of focus becomes especially interesting when the overlaps between natural and social systems are highlighted. Calling attention to the characteristics unique to Olympia and its artesian water holds great potential for design.

02.03 OLYMPIA’S ARTESIAN AQUIFER

In Olympia, water travels underground from southeast to northwest, towards the artesian aquifer, which is located below sea level under Budd Inlet. Just as glacial activity dropped deposits of fine sediment over deposits of porous sand and gravel thousands of years ago, riverine deposits helped to form the stratigraphic profile under Olympia. The Deschutes River deposited layers of sediment because its flow slows on entering the estuary at the foot of Budd Inlet. Essentially, layers of more and less porous material built up over geologic time, creating layered aquifers, the deepest of which are most likely confined and the shallowest of which are more vulnerable to pollution. This layering effect protects groundwater in deep aquifers and also restricts the majority of their recharge area to higher elevations.

Hydrogeologists currently understand Olympia’s artesian aquifer to be located in the Tumwater Sand unit of the Vashon recessional outwash formation, which was deposited at the end of the Pleistocene Epoch by north flowing rivers - approximately 12,000 years ago (PGG 5). The area of greatest recharge for Olympia’s artesian aquifer is located towards southern Thurston County and the Tenino hills, which reach an elevation of 1500 feet above sea level and where the bedrock layer is closer to the surface of the land (Romero 1997, 3). (Figure 15) The proximity of bedrock to the land surface in higher elevation areas suggests that water infiltrating into the soil reaches an underlying confining layer of bedrock more quickly. Once this occurs, the water travels along this impenetrable layer, deeper and deeper underground toward Puget Sound along (and sometimes through) cracks in the bedrock, following the hydraulic pressure gradient and topography.

Until fairly recently it was not clear whether all of Olympia’s artesian wells tap the same confined aquifer at least 90 feet below the soil surface. In the most recent 2005 study, hydrogeologists assert that “the artesian aquifer is now interpreted as the Tumwater Sand unit,” which appears to be a single aquifer (PGG 4). This Tumwater Sand aquifer has a thick confining aquitard layer and natural slow upward flow of ground-

water toward the surface, both of which protect groundwater integrity. The water quality of the artesian aquifer that feeds Olympia's downtown Artesian wells remains very high, but the condition of the original well casings and their seals remains of greater concern. Well casing integrity determines whether the wells are vulnerable to pollution while carrying water to the ground surface. The PGG study of geology, hydrogeology and groundwater flowpaths in Olympia observed:

Results of many groundwater quality analyses (repeated over many years) for existing artesian wells in downtown Olympia provide further evidence that the aquitard and upward groundwater flow have prevented contamination of the artesian aquifer. These wells lie within a few hundred feet of known contamination sites. The water quality analyses indicate that the water quality of the artesian aquifer has been consistently excellent for decades, with no evidence of man-made contamination . . . Despite serious contamination of the upper aquifer, the dozens of consulting and regulatory scientists understand that there is no threat that shallow contamination . . . will descend to the regional confined aquifer. (2)

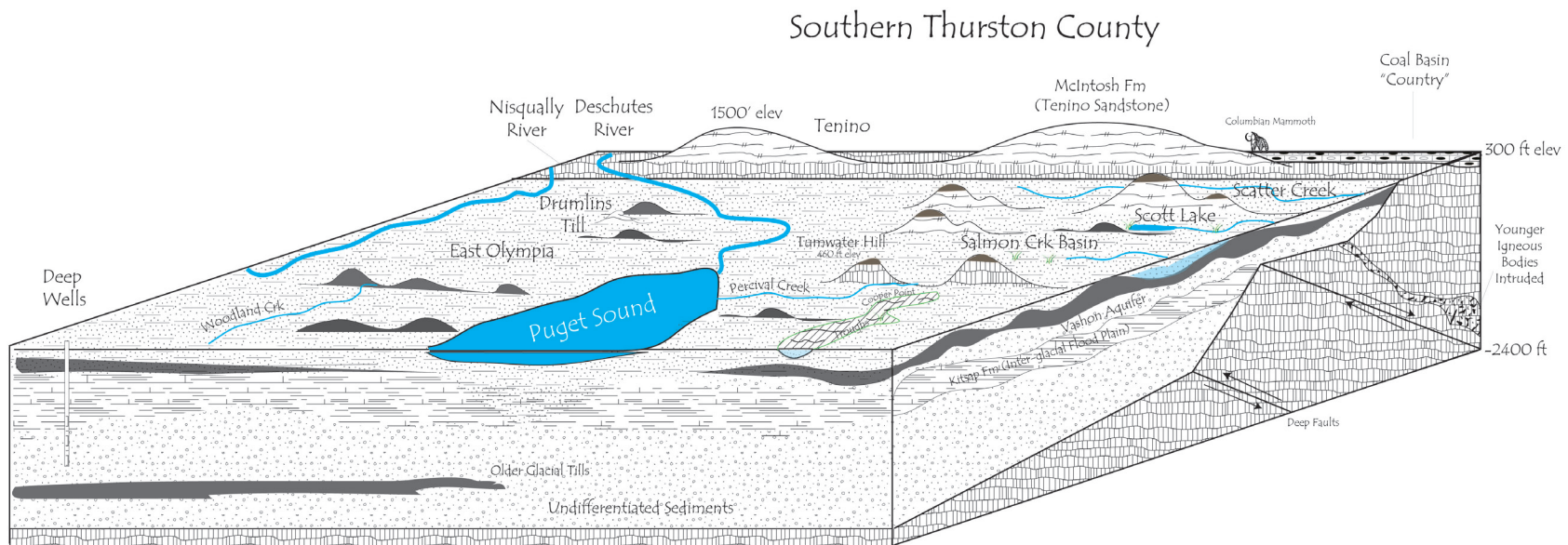


Figure 15. Conceptual geologic model of Olympia's artesian aquifer by Nadine Romero, L.P.G., L.P.G.H., 2009. (Image: Courtesy of Nadine Romero, L.P.G., L.P.H.G, Thurston County Environmental Health)

03.00 OLYMPIA'S ARTESIAN WATER IN THE LAST 100 YEARS

The character and quality of artesian water and the early history of Olympia might suggest that this water would continue to be a valued and readily visible asset today. However, recent history has seen the steady disappearance of artesian water and today only a few wells remain; this valuable asset is largely invisible.

03.01 THE RAPID DISAPPEARANCE OF OLYMPIA'S ARTESIAN WELLS

In the late-twentieth century, Olympia's artesian wells began to disappear. Existing surveys reveal that the majority of artesian wells disappeared between 1943 and 1994. The reasons for well disappearance are not conclusively documented, but there seem to be many possibilities. By 1927 the downtown area was fairly established (City of Olympia 2013), and it is probable that many of the new buildings connected to city water rather than continuing use of artesian well water. A large earthquake struck south Puget Sound in 1949, causing significant damage to downtown structures and infrastructure in Olympia. Damage may have extended to some of the wells, necessitating their closure or rerouting. The current McAllister Springs city water system was constructed in the 1940s, making artesian water redundant for most users (City of Olympia 2013). The State Department of Ecology would certainly have advocated for well decommissioning from a conservation perspective (Department of Ecology 2013).

The fate of the individual well sites varies, and only some of the wells are comprehensively documented through the surveys. Many wells were decommissioned (permanently destroyed). Others continue to flow today, but they are piped directly into the stormwater or sewer systems. The complexity or cost of decommissioning wells in some cases may have led to this arrangement. It clearly places a significant cost burden on the city. In fact, one of the most recent artesian well studies was conducted precisely to determine the quantity of artesian water unnecessarily treated by Olympia's wastewater management system. As of 1999, consultants estimated that each year up to 185 million gallons of artesian water flowed directly into the LOTT wastewater treatment plant, although the report suggests that this may be an overestimate given changing groundwater conditions and the continuing uncertainty of the number of artesian well connections (Robinson & Noble, Inc. 1999, 11).

A number of wells are quite literally invisible, acknowledged but of uncertain status. Their presence was documented at one point, but their current condition is unknown – they may exist, but exactly where, how much water they continue to produce, and what happens to that water

remains ambiguous. The fate of other artesian wells is better known; they are capped but could be reopened and free-flowing once again. A truly comprehensive survey does not appear ever to have been conducted. It is likely that the exact location and condition of wells buried under structures or streets will remain uncertain. However, it is certain that between the early 1900s and 2013, the number of remaining free-flowing artesian wells diminished dramatically, so that today probably only three or four artesian wells still flow in outdoor spaces that might be accessible to the public.



Figure 16. Decommissioned artesian well, survey number uncertain.
(unknown photographer, 2003)



Figure 17. "City Well." Former artesian well on State Street, now a parking lot.
(Image credit: J. Taellious / dreamsjung, 2008)



Figure 18. Former drinking fountain at Artesian Well #35, now decommissioned.
(SW corner of Fourth and Washington.) (Image credit: J. Taellious / dreamsjung, 2010)

A series of surveys conducted over the past century document the known well sites (and when possible, their condition). They also illustrate the steady loss of Olympia's artesian wells:

- 1939-1943 (three field surveys): City of Olympia staff documented 94 artesian wells and springs.
- 1994: the Thurston County Environmental Health Department completed a comprehensive inventory of artesian wells in downtown Olympia using the 94 sites documented in the city's surveys as a baseline. Staff found only 31 sites remaining (Robinson & Noble 1999).
- 1999: Robinson and Noble, Inc. conducted a survey of artesian wells in downtown Olympia for the LOTT Wastewater Alliance. Their intent was to confirm artesian well locations, quantify their flows, assess the fate of the water, and make recommendations regarding management of the wells in relation to the sewer system (which was treating a significant amount of artesian water along with regular sewage). The investigation explored 36 well sites and located 19 wells (at 18 sites), as well as 3 artesian springs.
- 2008: An informal field survey conducted and published 4.6.2008 on Olyblog found only three remaining flowing outdoor wells (Indilympia Jones 2008).
- 2011: City of Olympia staff created a "Downtown Area Artesian Well Map" that marked 11 known existing wells. Three artesian wells were located outdoors and accessible (two of the same three wells found in the previous survey). Seven artesian wells were found within buildings, and of these, three were still used for drinking water while the rest were connected to the sewer system. One capped well was confirmed to still exist in Sylvester Park, opposite the historic Capitol building. Interestingly, this list didn't include additional well sites that are commonly believed to still be flowing, including artesian wells under the local YMCA, Bamboo Restaurant, Bayview Market, and Old Town Bicycle shops, among the unmarked sites.
- January 2013: Personal field survey (by the author of this thesis) based on previous work revealed three flowing, accessible outdoor artesian wells: #46 in a city parking lot, #82 in a city alley, and #22 in a privately owned parking lot adjacent to public property. Well site #29 was inaccessible due to overgrown vegetation (state-owned land), but there is evidence that it is still flowing. Well sites in or under structures remain unidentified. Bigelow artesian spring continues to flow in a small community park. (Figure 19, at right)



Figure 19. Bigelow artesian spring (top) and three of Olympia's remaining free-flowing artesian wells and. From left to right: Artesian Well #22, Artesian Well #46, Artesian Well #82. (All images by author)

With the ongoing loss of the artesian wells, Olympia has lost part of its history. (FIG 22- WELL LOSS GRAPHIC) The wells played an important role in the development of the town, but also in its cultural evolution. Olympia citizens saw the city as an artesian town, and the water was a fundamental part of the city's identity. As is often the case, it is only with the loss of something taken for granted that people have begun to appreciate what was lost. As a result, Olympians have begun to mobilize in defense of their artesian heritage.

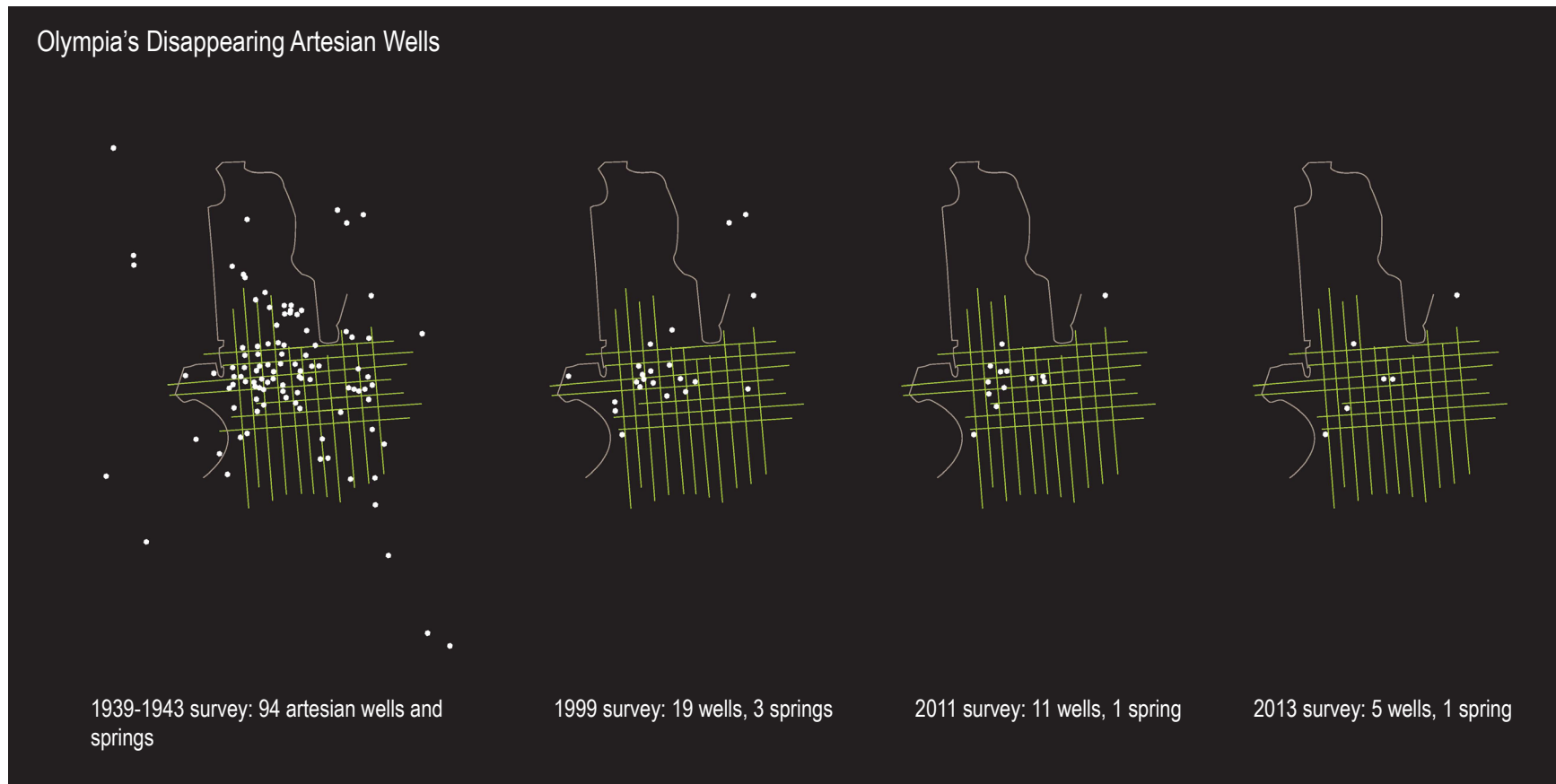


Figure 20. The disappearance of Olympia's artesian wells.

03.02 “It IS the water, not was . . .” ARTESIAN WATER ADVOCATES

As Olympia’s once abundant artesian wells began to disappear, some local residents took notice. In 1991 citizens concerned about the complete loss of this community asset created Friends of Artesians (FOA), the first of two instrumental artesian water advocacy groups. For the next 17 years this group advocated well site preservation and retention of public access to artesian water. The title of part of their website, “Open and Flowing: The Unfinished History of Friends of Artesians,” indicates their continuing commitment to their cause. FOA members passionately articulated both the mission and the philosophy guiding their action:

The mission of the Friends of Artesians is to preserve and protect Olympia’s heritage of publicly accessible artesian wells, and to promote good stewardship of these extraordinary gifts of nature . . . Members of our group — and the many citizens and local businesses who are working with us — come from different scientific disciplines, cultures and religious traditions. All of us share a strong belief that the pure artesian water which flows so freely from the earth has not just practical, but spiritual value. Artesian water is a lodestone of our identity and our history as a community. It is an ever-present reminder of the strength of nature and of the cycle of life-giving water that flows from the mountains to the sea and back again. We believe that by preserving and celebrating our artesian wells, we can not only live up to our responsibilities as stewards, but also teach the ethic of good stewardship - by example - to the generations who will follow us. (FOA 2007)

FOA began in 1991 as passionate locals mobilized to advocate the creation of a park at artesian well site #46: “For such a long time there has been this desire in town, especially in the community of artists, to make a pocket park around the artesian well in the parking lot downtown!” (FOA 2007). These early conversations soon led to a February 24, 1992 article in *The Olympian*, which inspired dozens of additional residents to join the effort. The social significance of artesian water quickly became apparent. Shortly after the article appeared, community members responded in various ways: “Yvonne McElroy called and donated \$3,000.00. Stories from elders gathering water at the Diamond well told of its rich history -- the train station it originally served, loading beer, how town looked with wooden brick streets, the train wreck, the loss of the train station, the well left abandoned but beloved in the parking lot. . .” (FOA 2007).

FOA members pursued their vision of a community artesian well park, turning to various agencies for guidance. In 1992 a Department of Ecology expert (DOE is the agency that regulates water rights in Washington) helped to explain how the site might legally continue to serve as

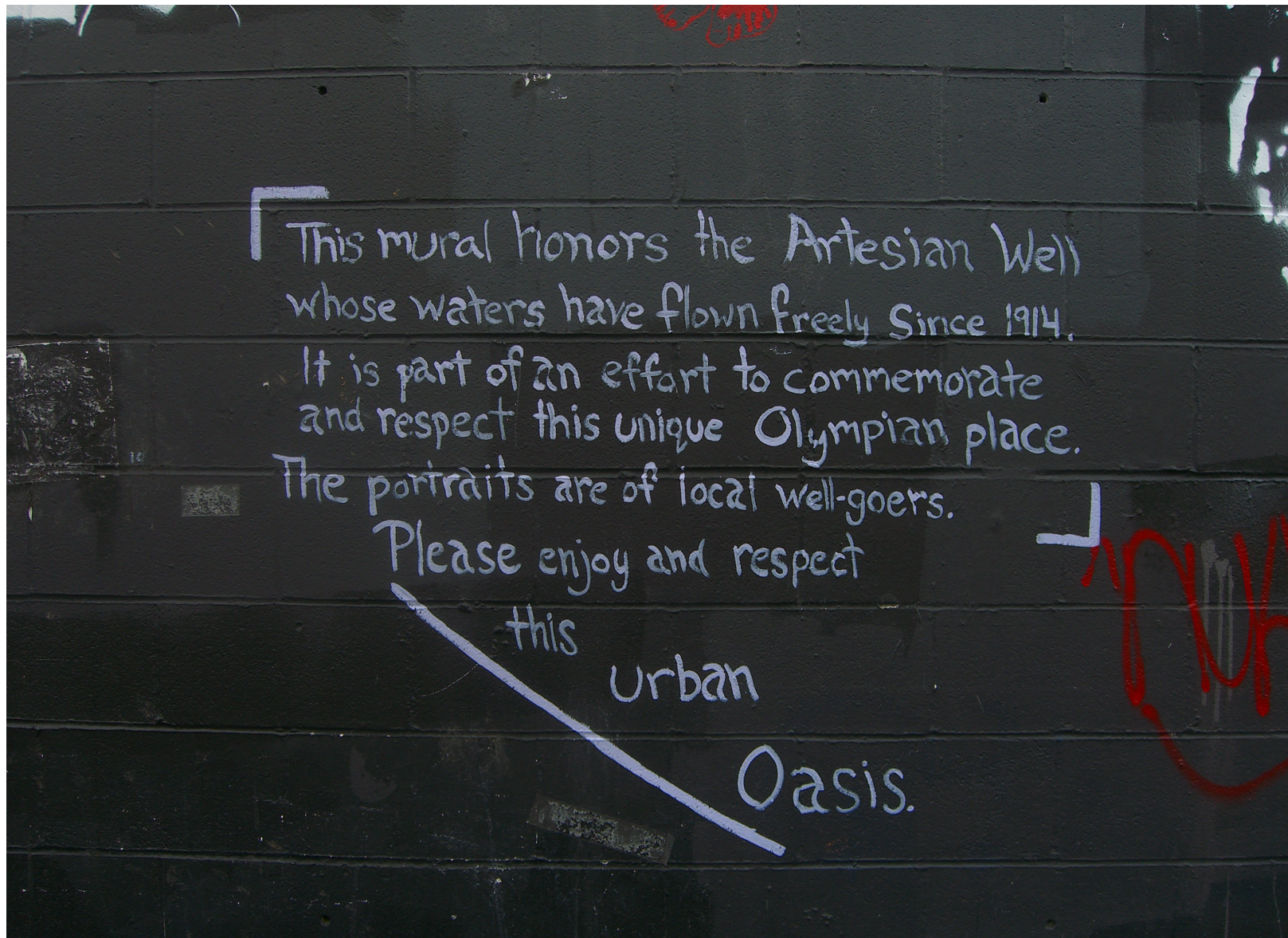
a public water supply, based on language in the Revised Code of Washington. There was concern about “wasting” water, as wells are required to include valves that shut off flow when they’re not in use. Jim Ingersoll, one of the FOA founders and an eloquent advocate for artesian water, recounted this 1992 conversation on the FOA website:

“Does this mean what I think it means?” Jim asked. “Does this mean we can have an open and flowing source of water essentially “wasting” water, if it serves a higher esthetic, educational, historic preservation good or economic purpose?” Dick said, “yes.” [Sic] The foundation in law existed to support the concept long held by the community of a park around the well supporting recreation, art, education with other economic and environmental and social benefits. (FOA 2007)

The initial call to create a pocket park garnered support from just about everyone who heard the idea, from politicians to city employees to state and county agencies and individual residents. Yet despite its promise, the idea of a park was not realized for another 22 years. Instead, the proposal marked the start of a community effort that eventually spanned decades.

The FOA group remained committed to their cause through 2008: “We recognize that at both the Port and the City, recently elected leaders may not know the history of this project, or recognize the depth and breadth of public support for a public artesian well. We are mobilizing to change that – and to reinvigorate and renew our efforts to realize our vision of an open, flowing, and permanent public well that honors our heritage and celebrates our civic identity” (FOA 2008). In November 2008, Friends of Artesians disbanded after 17 years of advocacy, hoping that others would take up the cause. Founding member Jim Ingersoll articulated several reasons for dissolving the group in a public letter posted on the FOA website (See Appendix A). Among them, the following issues were critical: the failure to negotiate an agreement with the city and the Port of Olympia for an alternative well site; the frayed relationship between FOA members and city staff, born of years of failed collaboration; the FOA perspective that the City sent mixed messages about their willingness to commit to and own a well for public use. Former Olympia City Council member Craig Ottavelli disagreed: “the real hang-up is that the city is willing to own and maintain an artesian well park, but not a free-flowing water supply for unlimited, uncontrolled public use” (Dodge 2008). The two most compelling options were both problematic. A proposed alternative well site on Port of Olympia property had stalled, and the existing well site, #46, was located on a privately owned parking lot. Yet FOA members had always taken the position that the well site should be developed both as an artesian water source and as a public space for the community.

Not long after Friends of Artesians dissolved, a new group formed to resume advocacy for artesian water. H2Olympia was established in February



This mural honors the Artesian Well
whose waters have flown freely since 1914.
It is part of an effort to commemorate
and respect this unique Olympian place.
The portraits are of local well-goers.
Please enjoy and respect
this urban
Oasis.

Figure 21. 2008 Mural detail from the site of Artesian Well #46 (mural since removed)
(Image credit: J. Taellious / dreamsjung, 2008)



Figure 22



Figure 23

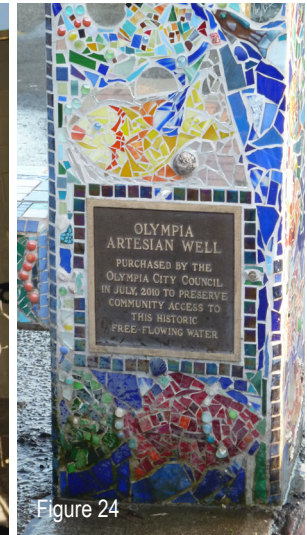


Figure 24



Figure 25



Figure 26



Figure 27

Figures 23-27. Olympia Artesian Well #46. (Figures 23 and 27, courtesy of Jim Nieland, 2011. All other images by author, 2013).



Figure 28. Former Diamond Parking lot and site of Artesian Well #46, purchased by the city of Olympia in 2010. (Image by author)



Figure 29. Water collection at Artesian Well #46. (Image: <http://www.oly-wa.us/Artesians/Images.php>, accessed 6.4.2013)

2009. Similar in vision to Friends of Artesians, H2Olympia continues to assert the same basic perspective today: “we need to formally recognize Olympia’s artesian water as a priceless natural resource, and undertake a long-term strategy for protecting this water and securing the public’s free access” (H2Olympia 2009).

Finally, in 2010, the City of Olympia purchased the Diamond Parking Service property at 4th Avenue East and Jefferson Street SE, which includes well site #46, eliminating the need for an alternative site and opening the door to an officially sanctioned artesian water source on a publicly owned property. (Figures 22-29, at left and above) Nonetheless, conflicting agendas remain as the site was purchased with the intention to maintain a parking lot for City of Olympia fleet vehicles, with the artesian water also publicly accessible. The City of Olympia reached an agreement with the Thurston County Public Utility District to monitor water quality understood in the context of its use as (public) drinking water.

03.03 ARTESIAN WATER USE

The history of artesian water in Olympia has been shaped by many participants over more than a century. Advocates for and users of artesian water are just some of those interested in this water. Artesian water use ranged from commercial use in the past to daily or weekly collection by individuals using it today as their primary drinking water.

EARLY RAILROADS

While Olympia was passed over as a main “Pacific Coast Terminal” by the railroad companies (which chose Tacoma and Seattle instead), the city was nonetheless served, after 1878, by several railroads used for moving timber and other goods to the north and south (Hannum 2009). Railroad companies, such as the Northern Pacific and Union Pacific, required water for their steam engines, and artesian water was convenient and inexpensive. Two of the few remaining free-flowing well sites today, artesian wells #46 and #29, were originally bored to provide water for steam engines. Well Site #46 has an historic water rights certificate from the Oregon-Washington Railroad and Navigation Company, dated 1915 (Rome-ro 1997, 8). The property hosted a Union Pacific train depot until 1959, when a runaway train caused a devastating wreck that destroyed half a city block of 4th Avenue, leading to its permanent closure (Dougherty 2006).

OLYMPIA BREWING COMPANY

Much more famously, artesian water has played a major role in Olympia’s most prominent non-political business, the Olympia Brewing Company. Founder Leopold Schmidt established the brewery in 1896, first as the Capital Brewing Company, and later as the Olympia Brewing Company. Hydropower generated from the Deschutes River powered his brewery, which used 28 artesian wells for brewing the famed Olympia Beer (FOA 2007). Their famous marketing phrase, “It’s the Water,” appears even today on T-shirts, bumper stickers and the cans of Olympia Beer that are still sold. (Figures 30-32) Today the product has reached a form of cult status as a “retro” working-man’s beer that still promotes its link to artesian

water, and the beer still continues to be a source of place-based community pride. The quirky and savvy commercials produced in the 1970s and 1980s also helped to promote a humorous narrative around this product, linked to the idea of a mysterious creature called an “artesian” that lived in Olympia along with the special water.



Figure 30. Olympia Beer label circa 1906. (Image: www.brewerygems.com/olympia.htm)

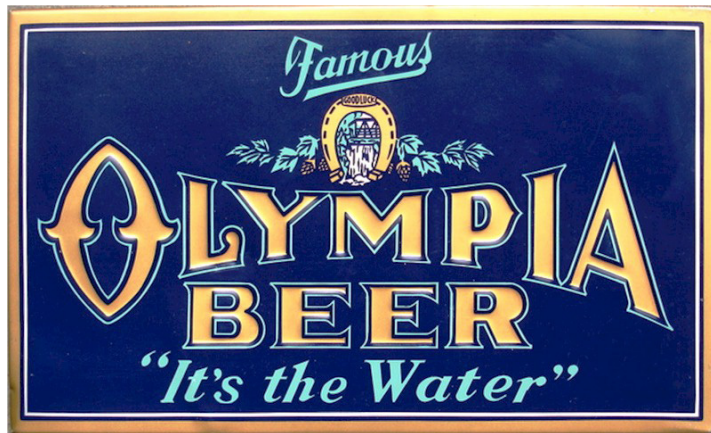


Figure 31. Olympia Beer (embossed sign) (Image: www.brewerygems.com/olympia.htm)



Figure 32. Abandoned Olympia Brewery buildings. (Image courtesy of Rachel La Corte, 2012)



Figure 33. King Solomon's Reef advertisement
 (Image: <http://www.oly-wa.us/Artesians/Images.php>)

LOCAL RESTAURANTS

Artesian water has also been a water source in downtown restaurants for many decades. A limited number of restaurants continue to use artesian water today, including McMenamins Spar Café and King Solomon's Reef, both located along 4th Avenue in the downtown core of Olympia. (Figure 33)

OLYMPIA REGION RESIDENTS

The many reasons why local residents continue to use artesian water are also crucial considerations. Understanding the number and character of well users is critical for appreciating the significance of Olympia's artesian water. On an average day at well site #46 one can encounter a broad cross-section of water users:

"And true to Olympia style, all comers to the parking lot express something a little different. Besides the usual greeners [The Evergreen State College students, my addition] —adorned with tattoos or stretched earlobes, army pants or peasant skirts—are suburban moms exiting minivans and tourists road-tripping from Alaska. After a dog laps from the surging stream, a woman in a pink pantsuit leans over to fill her bottle, taking care not to get her beige pumps wet. It's everyone's water" (Williams 2012). Surveys were conducted to determine the frequency of well use and character of users. Olympia resident Amber Well and partners conducted an informal 24 hour survey in 1999 that logged 424 users:

On a sunny day in September we set up camp - 24 hours at the Artesian well. Our mission was to document names and faces, and to find out just who does drink this water? One day and 424 signatures later told us what we already knew - our well is integral to this town. Garbage men to police officers, skate punks to RV owners - the one consistency is everyone's adamant belief in clean water. As I sat by the pouring water in the leased out parking lot, first in a sweatshirt and later with a hat to keep out the sun, I soaked in the stories of the town . . . When Cooper Point flooded everyone got their water here. When the train crashed straight through the station into Bill's kitchen (now Proffit's) it was right under the nose of this well. . . A retired police officer told about a well they tried to cap over by the freeway - "Blew the pipe 90 feet in the air from the pressure. Now it just runs right into the ground. (Bell 1999)

A decade later another study was conducted. From January 21 to 25, 2009, the Washington Conservation Corps (WCC) administered a survey at well site #46 and documented 283 visitors each day between 8 a.m. and 8 p.m. They counted a total of 1413 well users over the course of a mid-winter week (WCC 2009). The number of users most likely increases as foot traffic rises in warmer months. This report also provided the following data:

- Over 100 people can gather at the well site during peak use times
- 69% of surveyed users lived within Olympia city limits
- The age of well users ranged from 8 to 96, with an average of 42
- 97% of users collected the water for personal use
- Users had been visiting the well for about 9 years on average (although one user had been coming for 52 years)
- The overall average volume of water collected was 4.8 gallons/week per person
- 55% of users surveyed considered the artesian well to be their primary source of water (although not specifically drinking water)
- 13% of users said the well was their sole source of water

The survey solicited additional comments from participants, and the complete list of their responses is included in the Appendix (See Appendix B for complete list of responses). A sampling of comments reveals the wide range of rationales for well use, and the importance of the well to users' perception of Olympia:

"Free access to an artesian well is an important part of our history and culture - we need a park. What a tourist attraction it would be!"

"Hope we can promote clean water sources for the future. I will pay whatever it costs to get clean water for us (by donating change)."

"I would be so upset if the well was not available. This is a very important resource for our community. Free, clean, abundant water. I would like the city to pay for this service."

"I've used this water for over 35 years. Before that my parents also used this water. It's the best water in town. This water is the healthiest in Olympia, I know my friends from Portland who love the water and fill up every time they come up to visit me."

“My home well has high iron content. I try to use this artesian water exclusively for drinking water for me and my parrots.”

“Please preserve the well. It is a wonderful addition to downtown. It is meaningful and a draw, an asset to this fair city. Please, please save the well and public space!!”

“Serves as an emergency supply.”

“The streeters and veterans need this water. It’s our primary source. It’s not trespassing. Also it’s our history as well.”

“This is often the only source of water for chemically and environmentally sensitive children and adults.”

“This well is the only source of water that I can use for internal ingestion. My water has too much iron- due to blasting for building houses. If you close the well, I really don’t know what I will do. I sincerely thank you. I cannot afford to buy water.”

“It’s a very good social experience many times. It’s a good community gathering place and it would be fabulous to enhance the community spirit of the place.”

“The well is my favorite part of Olympia.”

At a March 2013 public meeting concerning the future of well site #46, H2Olympia members cited a similar range of reasons for artesian water use. Some fervently believed in the quality of the water, which has not been treated or chlorinated. Others living on restricted incomes indicated that they have faulty wells they cannot afford to fix. Still others were drawn by the novelty of the well, its reputation, and its rich history, and artesian water has become their primary water source. Water users arrive daily at the well, with one-liter bottles and vans full of five-gallon containers. As they wait, people from all walks of life trade stories and watch the water



Figure 34. Artesian Well #22 (Image credit: J. Taellious / dreamsjung, 2008)

flow, clear and seemingly endless, from the pipe. (Figure 34, at left)

Throughout the development of this thesis, the value of artesian water to the Olympia community became increasingly apparent. The exploration leads to the conclusion that any design approach addressing Olympia's artesian water should address multiple users, not a single user group, and should recognize multiple narratives –physical, ecological, and social.

04.00 DISCUSSION AND REFLECTIONS

Not only is water necessary human life, water also enjoys rich symbolic and metaphoric associations and meanings. Discussing “hydromythology” (the oral literature of people in relation to water), geochemist and hydrogeologist William Back wrote in 1981: “. . . myths of creation and origin of people clearly demonstrate both the reverence and the sense of mystery with which oceans and other bodies of water were regarded.” He highlighted the significance of water – not just for basic survival or the developing complexity of early civilizations – but also for the evolution of identity and even world view. In this context, Olympia's artesian water carries practical and spiritual layers of meaning for the place and for residents and visitors. Concepts and stories that emerge from the study of artesian water in Olympia include narratives of social resistance, links between people and place, community identity, time both on local and geologic scales, and, of course, stewardship of a precious resource.

04.01 FREE-FLOWING WATER AND FREE-FLOWING IDEAS: RESISTANCE NARRATIVE

Over more than a few decades, in a steady, persistent “act of resistance,” contrary to regulations, bureaucratic complexities, and political uncertainties, thousands of citizens have continued to collect and drink the artesian water flowing from wells such as site #46. This spirit of resistance appears to infuse the narrative of artesian water in Olympia. The initial well-drilling pattern at the turn of the 1900s was itself an early act of resistance. Residents rejected the costs of water privatization and bureaucratization and chose instead to develop their own water sources. The continued use of artesian water in restaurants and other downtown buildings, well past the time when the city's drinking water infrastructure was in place, is yet another example of resistance to convention and to regulatory control. Only after the State Department of Health required additional public health safeguards be installed in 1996 did this pattern of use change. For most sites, retrofit costs and inconvenience led to the permanent

loss of the wells. The formation of advocacy groups that have lobbied for over more than twenty years to protect public access to artesian water is the most compelling example of resistance. Despite all frustration, advocates have pursued the possibility of a public space linked to artesian water. They have also kept alive a spirit of autonomous thought and action that makes Olympia's artesian water a symbol of independence and spirited connection to place. Acknowledging artesian water as a catalyst for activism is an important part of the social narrative. The story of water in Olympia has not been just about a natural phenomenon, but it has also addressed what it means to the people who have found it so valuable.

04.02 LINKING PEOPLE AND PLACE OVER TIME

Olympia's unique water helps to link people to one another – and to place – in a significant way. In an opinion piece for The Olympian newspaper, hydrogeologist Nadine Romero wrote:

As a groundwater scientist, I have made the slow discovery that the meaning of water is more than a set of calculations about flow rate and volume, it is about culture and belief systems. The phenomena of the Fourth Avenue artesian well is not only about saving a flowing artesian well, it is about preserving cultural ties to 'a place.' It is part of the community ego... (The Olympian 1997)

She also observes that "Human belief systems surrounding water wells are powerful constructions in society. Wells represent places on earth where people not only extract a seemingly 'mysterious' resource, but they are a physical opening into the earth where one obtains a basic need. Consciously or subconsciously, people establish a relationship and deeper level of connection with the well. Culture begins at places of water and the loss of water is about 'a loss of place.'" This idea that loss of access to water is also about loss of access to place is very compelling. It reveals how closely connected people become to the landscape of their lives. Thus, artesian water in Olympia is essential to the social construct of "Olympia as a place." Celebrating and making artesian water accessible is fundamental to acknowledging and celebrating the experience that is life in Olympia.

Jim Ingersoll, founding member and spokesperson for the former Friends of Artesians advocacy group, responding to a question about the significance of artesian water, wrote:

The publicly owned and freely accessible artesian well park stands as both sign and symbol in my view. As sign, it points to the water and the well and the history that is extant. Literally...it exists. As symbol it participates in that to which it points. As we drink, we are being-as-belonging in human community. The open and flowing water is symbol of open and flowing communication. If we trust and speak truth in relationship we become psychologically/spiritually pristine...authentic...transparent...soulful. . . The artesian well is a secular reality that is a tangible event at a town center . . . like the center of self we discover in moments of healing, repair and reintegration, whether that occurs within an individual, relationship, family, community or region. The well is a place and event. (2.19.2013 email correspondence)

This idea of the well site as both a “place” and as an “event” is compelling for design. Ingersoll celebrates the essence of the community well site: it is fundamentally a place for all comers--a location for gathering, interacting, and sharing. Observations at well site #46 confirm this perspective. Individuals from across the social strata of Olympia meet and chat at the well, enjoying a neutral, welcoming space for everyone regardless of age, gender, or social or economic status. The use of a community well thus embodies an act – or event – of coming together around the graceful medium of water. The well and its water become a centerpiece for strengthening community bonds; they provide common ground that allows difference to coexist.

04.03 ARTESIAN WATER AND OLYMPIA'S IDENTITY

Just as Olympia Beer became part of Olympia's cultural identity, so too, have other references to the artesian wells. In the introduction to a 1997 article published in *The South Sounder*, reporter Betsy Model echoed this thought: “For many Thurston County residents, the term made famous by the Olympia Brewing Company, ‘it’s the water’ has become more than a saying, it has become a life philosophy” (Model 1997). She continues, citing the words of a local resident: “. . . ‘Water, community water like Olympia’s,’ said one longtime resident ‘isn’t simple water at all. It’s the spirit of the community. Our water is our soul.’” Numerous similar comments in surveys, on web blogs, and in interviews have referenced the water as part of what “makes Olympia, Olympia.” A 2011 survey asking for local input on the “Seven Wonders of Thurston County,” identified the Capitol Campus, Olympia Farmers Market, Procession of the Species parade, and downtown artesian wells among the region’s wonders (Hulings 2011).

The Friends of Artesians website noted that artesian water also has the potential to enhance a future sense of identity. They pointed out artesian water's potential to promote economic growth in the downtown area, and they referenced cities such as Ashland, Oregon, and Eldorado, Colorado, where artesian and community wells "are made distinctive parts of their civic identity" and are promoted for tourism, modeling an approach Olympia would do well to adopt (Friends of Artesian 2007). It is surprising that the city of Olympia has not already embraced this narrative as part of its identity, considering its potential to enhance civic life and support a growing tourist economy. Its past reluctance to do so likely reflects the controversy surrounding public access to the wells. Now that a public artesian well site is available, this part of Olympia's identity should have a stronger presence.

04.04 ARTESIAN WATER AS STEWARDSHIP CATALYST

A fundamentally important aspect of community and FOA perspectives on artesian water is the recognition of the link between this water, community, and environmental stewardship. FOA members articulated many reasons a free-flowing artesian well should be celebrated in Olympia. Significantly, they first addressed environmental education, and recognize the artesian well as:

. . . an unrivaled resource for teaching public awareness about the artesian heritage of our community, about groundwater, and about the hydro-geological cycle. By teaching about these issues, the well's spontaneous eruption in the middle of a parking lot helps to connect urban citizens with our utter dependence on the natural world. . . That's why this 85-year old well -- a well that predates every building that surrounds it -- is such a wonderful opportunity to teach the ethic of stewardship of the natural resources that have sustained human life in this area for countless centuries. (FOA website 2013)

In email correspondence, Jim Ingersoll focused on the importance of connecting with place and on the artesian well as a vehicle for promoting stewardship within complex social and ecological systems:

Our planet is shrinking and warming. Since Apollo 8 in 1968 brought us the image of our beautiful earth we have come to understand more and more how natural sciences reveal the inextricable intertwining of all living systems. To preserve the rain forests multiple governments must cooperate across national boundaries. In Olympia our effort has been to create that conversation across regulatory and governmental boundaries to accomplish a goal

that brings unity to the vision of a public ownership of sacred nature for the health of all. The well is such an unusual opportunity to cooperate . . . (2.19.2013)

Hydrogeologist Nadine Romero has focused on the concept of ancient water when addressing stewardship. In an interview, she described the main lesson she hopes visitors to a public artesian well might take away: “Water comes from everywhere; it moves along arcing flow-paths that come from old times and from time that’s more recent; from bluffs and from deep within basins; all of it is linked by this integral theme of arcing through the strata beneath our feet in a continual journey” (Romero 2013). Her eloquent vision reminds one that the water is very old, and has the ability to link people to times long past. In an earlier opinion piece that Romero wrote for *The Olympian*, she noted that through awareness of this relationship, we connect more closely with natural resources, and can better acknowledge the journey we share with them in a stewardship role:

After studying the well this past month and observing people’s belief systems about the well, I am concerned that people have not yet become educated in the language of the 21st century: groundwater and sustainability; that the water does not come from Mount Rainier in a lava tube; that it is not an endless supply; that flowing wells in most instances are not “good” things, but wasteful practices that can diminish water supplies. The well represents a place where we can shape and change society, too. Our state is grappling with large-scale water issues. Educating the public about groundwater is central to eliminating barriers in the protection of groundwater resources. Remarkably, the Fourth Avenue well comes from a lower aquifer of Olympia that does not appear to have been tainted by our industrial imprint, at least not yet. We need to educate the public that while our aquifer systems in the Puget Sound transmit water readily, they are also very vulnerable. In Thurston County, we rely almost exclusively groundwater environment. We can’t afford a cupful of dry cleaning fluid. A can of oil. Pesticide. All of those are familiar causes of groundwater contamination in our locale. (Romero 1997)

The commentaries indicate that artesian water can serve as a means to reveal nature “at work,” fostering a stronger connection between people, place, and the environment. The interplay of artesian flows, tides, weather systems, and seasons offers powerful educational and artistic opportunities specific to Olympia. For example, Olympia residents might monitor tidal flux at a well site rather than at the marine shoreline. A measuring system that links artesian water flow height to tidal conditions, revealing interactions between systems would reveal the interconnectedness of natural systems. Another well site might offer the opportunity to explore the connection between seasonal rainfall and flow rate. Places

like this might link curiosity, play and learning. The well sites hold tremendous potential to connect people, place, and the natural systems that support life. By heightening awareness, these sites can foster ecological stewardship, as only by caring for this place and this water can the artesian phenomenon be preserved and embraced by all, today and in the future.

Recognizing the specifics of place is one of the most compelling ways for a community to connect to its natural habitat and to understand its relationship to the physical landscape over time. This connection has implications for understanding the past but also for developing an adaptable, resilient relationship with nature (and place). In Olympia, the history and continued presence of artesian water helps residents to locate themselves in a particular watershed with specific hydrogeologic conditions, as well as in a unique cultural context. This combination of natural and historical circumstances is not found everywhere. It helps to make Olympia unique, and generates pride and affection. How Olympia relates to water in the future will contribute to its success or failure as a community. In conclusion, the *Friends of Artesians* offered a persuasive list of reasons for a public artesian well (Italic emphasis mine. <http://www.oly-wa.us/Artesians/SevenReasons.php>)

1. *It's the will of the people.* There is no doubt that people in this community value our heritage of artesian wells, and want continued public access to this resource.
2. *It will promote good stewardship of water.* A highly visible, public well with an educational display will help people re-connect with the natural world and raise their awareness about water use and the importance of good stewardship of water resources.
3. *It's part of what makes Olympia, Olympia.* "It's the water" is more than a traditional slogan for the brewery; it's a description of what makes Olympia unique. Artesian wells are an essential part of our civic identity and our heritage.
4. *For some people, untreated artesian water has special health and spiritual benefits.* Many people who use the existing artesian well are quite sure that it has improved their health, and that lack of access to this water will significantly harm them. Others have an essential spiritual connection with the gift of natural, "wild" water. A city that respects diversity ought to respect these needs and these spiritual connections.

5. *An artesian well will be a tourist attraction worthy of Olympia . . . a public well will demonstrate the special sense of community and connection with nature that we would like this city to be known for.*

6. *A public well is vital when power is out to people who rely on private wells with electric pumps.*

7. *An open and flowing well promotes open and creative thinking.* A communal well is a powerful symbol of sharing, of deep connection to the earth, and of gratitude for the mysterious gifts of nature and of life. To keep Olympia's commitment to be a sustainable community, there is an urgent need to nourish these qualities so that we can find new ways of living in harmony with the natural world that sustains us all. Creating a permanent, publicly owned artesian well in the heart of our city is the right way to start a new century.

05.00 SECTION CONCLUSIONS: LOOKING FORWARD

Artesian water is not just a source of quality drinking water for those who need it. It is also a significant part of the city's historic and social narratives. Perhaps most compellingly, artesian water is a catalyst for community cohesion, place-making, and stewardship in relation to water. Despite its tremendous power, artesian water is often neglected and unacknowledged.

In order to design with artesian water, it is necessary to appreciate its physical properties and its imaginative possibilities. In *What Time is This Place?* Urban planning theorist Kevin Lynch, observes "the contrast of old and new, the accumulated concentration of the most significant elements of the various periods gone by . . . will in time produce a landscape whose depth no one period can equal" (1972, 57). Understanding how artesian water functions, as well as the physical conditions that shape its flow and availability, also contributes to a deeper understanding of Olympia as a natural and social landscape. From the perspective of a designer, it is critical to view Olympia as a city situated within a larger ecological context that includes artesian water. This context influenced the city's development and how it took form in the landscape, as well as the development of its social history and identity. A broad understanding of artesian water also creates the foundation for considering resource management, stewardship, and exploration of the water in relation to people today. Artesian water opens doors for creativity and appreciation of place and the people living there. These possibilities can link ecology, people, history, time, and ultimately, deepening a sense of place as a platform for design.



Figure 35.
Olympia's Artesian Rumble Arkestra
(Image courtesy of Rachel La Corte)



CHAPTER 3

SITE ANALYSIS AND CURRENT CONDITIONS

Figure 36. Washington State Capitol buildings
(Image courtesy of Rachel La Corte)

CHAPTER 3

SITE ANALYSIS AND CURRENT CONDITIONS

01.00 THE CURRENT STATE OF PUBLIC SPACE IN OLYMPIA

A compelling design based on the artesian wells of Olympia will consider past history, cultural narratives, and ecological context. It will also respond to contemporary conditions and the future needs of the city. Exploring the current state of public space and public art in Olympia reveals overlooked opportunities and strategies to enhance civic life in Olympia's downtown core. Olympia's Comprehensive Plan outlines the city's priorities and vision for the future, as does the city's proposal for a new park site. Exploring the city's assets and possibilities demonstrates the relevance of a multi-scalar design approach based on the city's historic artesian wells.

01.01 EXISTING PUBLIC SPACE IN THE DOWNTOWN OLYMPIA AREA

According to data collected during Olympia's Comprehensive Plan update 2012, the 160 acres that comprise downtown Olympia host approximately 20,000 workers and 2,000 residents (City of Olympia 2010). The City's official delineation of downtown includes land north of Interstate 5 to the tip of the Port Peninsula, and from Capitol Lake on the west to Eastside Street (Figure 37). For the purposes of this thesis, downtown Olympia will be defined more tightly. Downtown will consist of the walkable core where the majority of people, shops, restaurants, community amenities, and social activity are centrally concentrated. This area is bounded by Union Avenue SE to the south, the Farmer's Market on Marine Drive NE to the north, Plum Street to the east, and Capitol Lake to the west (Figure 38).

According to public space advocate groups such as Project for Public Spaces, effective public spaces support experiences ranging from festivals to quiet leisure; from casual encounters to organized social gatherings. Successful civic space is accessible and makes everyone feel



Figure 37. Downtown Olympia boundary as designated in the 2012 Comprehensive Plan. (Image: Comprehensive Plan for Olympia, Washington)



Figure 38. Downtown boundary used for this thesis. (Base Image: Puget Sound LIDAR Consortium)

**EXISTING PUBLIC SPACE IN THE DOWNTOWN
OLYMPIA AREA**

- Percival Landing Park
- East Bay Public Plaza
- Heritage Park Fountain
- Sylvester Park
- Capitol Lake

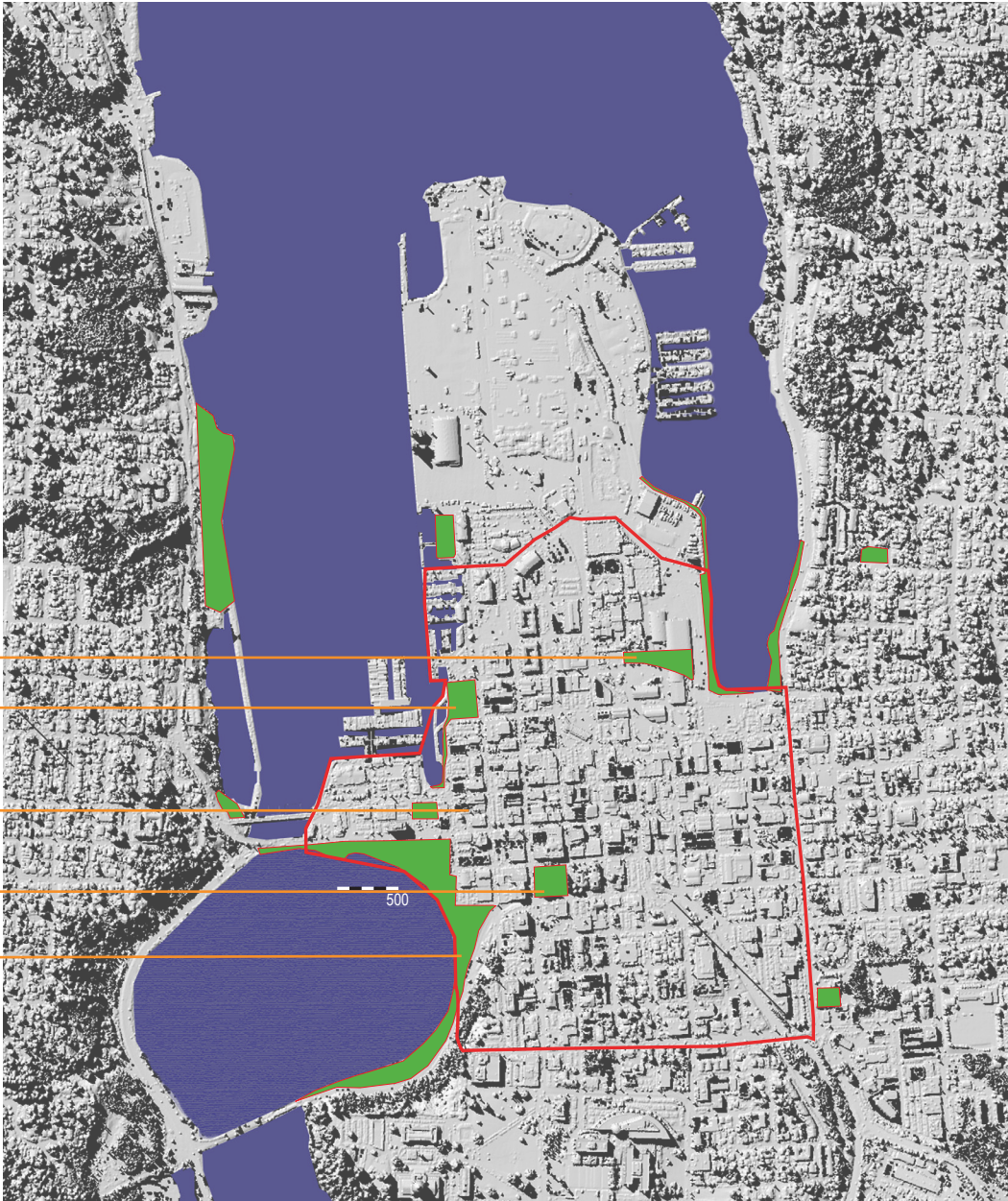


Figure 39. Existing downtown Olympia parks concentrate on shorelines.
(Base image: Puget Sound LIDAR Consortium)

welcome and able to participate (Project for Public Spaces 2013). Effective public space allows for the mixing of people with different values as well as the celebration of common values and vision. City streets and parks constitute the primary forms of public space in Olympia. These are the key places in which people are able to move, stay, and congregate freely. The Farmer's Market provides a popular area with free concerts during market hours, but otherwise stands empty. The Olympia Center and City Hall offer specific services such as classes or administrative support, but they are not primary public gathering or recreation destinations. Olympia's existing parks are the most commonly used public spaces. There are five parks in the downtown district, offering approximately 31 acres of recreation and open space (Heartland 2010, 6-7). Downtown Olympia is quite small; each of the parks in downtown is located within a 10 minute walk from its center. (Personally timed walks; Google map distances).

- Sylvester Park: 0.3 miles, 5 minute walk.
- Heritage Park Fountain: 0.4 miles, 8 minute walk.
- Percival Landing Park: 0.4 miles, 9 minute walk.
- Capitol Lake (Heritage Park): 0.5 miles, 10 minute walk.
- East Bay Public Plaza: 0.4 miles, 9 minute walk.

Almost all of the parks are located outside of central downtown, clustered instead along the marine and lakeside waterfronts. (Figure 39, at left) Sylvester Park, Olympia's oldest park, is the one exception as it is located near the shopping and restaurant district and is a popular place drawing casual visitors. (Figure 40) None of the parks include active sports infrastructure such as ball fields, skateboarding space, or exercise equipment. As the downtown residential population increases, it will become important to include active recreation sites. There are two playgrounds for small children (in Percival Landing Park and East Bay Public Plaza), but otherwise the existing parks are designed for passive activities such as sitting, socializing, and people watching. (Figures 42 and 43) The two sites that provide space for active recreation are not located within the downtown core. An interactive fountain at Heritage Park offers a seasonal exception to the passive-recreation standard; it is extremely popular for youth and adult play on hot days. (Figure 44) The greenway around Capitol Lake includes running and strolling paths, as well as large lawns that are sometimes used for impromptu soccer, catch, or ultimate frisbee. (Figure 41) Olympia offers a generous amount of park space along its waterfront. However, the city neglects the downtown core and it fails to offer diverse forms of recreation. It is notable that existing parks



Figure 40. Sylvester Park, looking southwest (Image by author)



Figure 41. Capitol Lake and Heritage Park, view looking south. (Image by author)



Figure 42. Percival Landing Park, view looking west (Image by author)



Figure 43. East Bay Plaza (Image by author)



Figure 44. Heritage Fountain. (Image: S.A. Stevens, 2010)

lead people away from the central shopping and restaurant district rather than keeping them within it while offering respite. There is a need to concentrate new civic space, whether green park space, hardscaped plaza, or informal public seating and gathering areas, in the interior to provide convenient places to rest and relax while spending time downtown. None of the existing public spaces highlights the history of Olympia, with the exception of the occasional statue (Sylvester Park) or sculpture (Percival Landing) referencing historic figures. Metal castings of shellfish and maritime equipment are inlaid in the pavement at Percival Landing, alluding to one aspect of Olympia's past and present economy. Artesian wells are not referenced or mentioned in any of the existing park sites.

01.02 OLYMPIA'S LONG-TERM CIVIC ENHANCEMENT GOALS

Olympia's Comprehensive Plan provides a flexible framework for spatial improvement of civic life in Olympia. According to the 2012 Comprehensive Plan, Olympia aspires to be a model city focused on sustainable development and quality of life. In 1990 the city accepted a grant from the State Department of Ecology to develop a pilot sustainable city program (City of Olympia 2012, Ch. 7, 6). The city articulated its aspirations in the 2012 Comprehensive Plan for Olympia and the Olympia Growth Area (finalizing an update in spring 2013): "Olympia will be a showcase in the years to come, fulfilling its potential as the capital city of the Evergreen State. This role will be reinforced by more pedestrian-oriented streetscapes, livable and affordable neighborhoods, safe and meaningful street life, and high-quality civic architecture" (City of Olympia 2012 update, Ch. 7, 20). In addition to the Comprehensive Plan, the city website hosts a page titled "The Downtown Project," which describes initiatives focused on the city center:

The City of Olympia is committed to the prosperity of downtown. The Downtown Project is a multi-directional approach that focuses on a variety of key projects in four categories: Clean, Safe, Economic Development, and Placemaking. It is an ambitious plan that involves several City departments, the Olympia Downtown Association, the Parking & Business Improvement Area, downtown residents and community members at large. (City of Olympia 2013)

This project supplements the Comprehensive Plan, which has a broader planning scope but compatible goals.

01.03 OLYMPIA'S CIVIC SPACE: PUBLIC SPACE, PLACE-MAKING, AND IDENTITY

A number of elements in the Comprehensive Plan address Olympia's goals and priorities for enhancing civic space. Chapter Seven focuses on "Parks, Arts and Recreation." The text states that the City emphasizes diverse park types and unique experiences within these parks instead of many similar parks spread evenly across the landscape: "In the case of open space, residents are often looking for the special and unique features associated with one park in particular . . . residents will seek out a specific park across town for the special qualities and experiences presented by the park and also in part to see something different" (City of Olympia 2012, Ch.7, 6). The city's approach seeks to protect open space as growth takes place within the Growth Management Area. However, this strategy focuses park expansion on a "new development" model, shifting civic space to the periphery rather than addressing conditions in the city center. In so doing, it neglects Olympia's downtown heart.

Despite the emphasis on park development beyond the City center, the Comprehensive Plan offers a number of goals that directly impact the downtown core. These goals include aesthetic enhancement, identity-development, and place-making: "Give priority to street beautification Downtown and along High Density Corridors . . . Enhance neighborhood identity. . . beautify or enhance existing open space areas, streets and rights-of way, or significant private parcels" (City of Olympia 2012, Ch.7, 7). Importantly the city specifically acknowledges history and landscape as contributors to a sense of place: "In developing parks, give consideration to preserving and restoring historic sites and landscapes . . . consider opportunities to include historic information and/or interpretation," (Ch.7, 7). The plan also cites the artesian wells, a significant step: "Identify and preserve artesian well sites," within its list of policies (Ch.7, 8), acknowledging the importance of the well sites as a unique part of Olympia's historic landscape. In this section of Chapter Seven one finally discovers a statement of interest in developing "Parks for leisure and beauty in the midst of a commercial and office core and in Downtown and High Density Corridors." This statement is one of very few direct references to provision of additional park space in downtown (Ch.7, 9). Another important policy impacting civic space in downtown encourages "incentives for private developments in the central business district to encourage pocket parks, plazas, courtyards, arcades, atriums, pedestrian corridors, public art and through block corridors," (Ch.7, 10). The use of private sector incentives should be part of City policy, providing flexibility in public space development, but incentives should not be the singular approach to park development. Relying on private developers to provide public space presents many challenges, not least, the risk of exclusionary strategies in spatial design that aim to discourage undesirable populations from using the "public" space. Such a strategy raises issues regarding the privatization of the public realm: "Contrary to the rhetoric of openness and inclusive-

ness, the actual making and practice of public space often reflect a different political reality and social biases,” urban space scholar Jeff Hou writes in his essay *(Not) your everyday public space*, questioning whether today’s public space actually embodies the democratic, welcoming, “common ground” that it often intended to be (3). Hou notes that exclusionary tactics have been a common part of public space design and management: “The growing privatization of public space has become a common pattern,” and as a result, “their public functions and meanings have become highly limited” (Hou 2010, 4).

Goal 5 of the Comprehensive Plan states “Provide all citizens with a wide range of recreational land and cultural opportunities in clean, safe, and accessible park facilities” (Ch.7, 9). Within this goal the city claims to strive for a balance between active and passive recreational opportunities. Directly addressing active physical recreation, the Plan focuses on large organized sports fields and athletic facilities, leaving out the possibility of less conventional play or recreational facilities. However, the City’s general vision can be broadly interpreted to imagine a new soccer field complex, a skate park, or outdoor fitness equipment integrated into an unconventional urban space:

Adult athletics provides opportunities for fitness, competition, social interaction and wellness. Indirect benefits include decreased long-term health care costs and economic opportunities and expenditures diverted to more leisure activities and sports related equipment. Other economic benefits directly impact the community with revenue resources from tournaments positively impacting local hotels, restaurants and tourism services. Youth participants also have opportunities to associate with positive adult role models in supervised activities where they learn and practice skills appropriate behavior and build supportive relationships. (Ch.7, 36)

Conceptions of play and recreation as a public health benefit can include integration of play and recreation in less conventional settings. Fitness and social goals such as those described in the quotation can be achieved in settings other than a traditional green, grassy park. By limiting its vision of park space as stated in the Comprehensive Plan, Olympia has potentially missed the opportunity for play and innovation in the downtown core where grassy fields do not make sense.



Fig. 45. Downtown mural (Image: Brylie Oxley, 2012)



Fig. 46. Downtown mural (Image: Brylie Oxley, 2012)



Figure 47. Mosaic (Image by author)

01.04 OLYMPIA'S LONG-TERM PUBLIC ARTS VISION

The Comprehensive Plan also addresses the role of public art: “We envision a public art program that is inspiring, thought provoking and functional, inclusive, and diverse . . . that is woven into the community and our daily lives—our neighborhoods, parks, buildings, infrastructure, and public spaces” (Ch.7, 13). Public art becomes a tactic to celebrate Olympia’s uniqueness and a tool for way-finding, for exploration of history and culture, for intellectual stimulation, and not least, for establishing identity. (Figures 45-47) According to the Plan, public art should “Reflect community identity . . . to create unique community places, define or redefine public spaces, or suggest experiences that evoke a strong sense of orientation” (Ch.7, 14). Olympia’s approach to public art in civic life also provides a strong creative foundation for design interventions. The city should “identify public art opportunities that highlight the cultural and historical connections within our community through local history, environmental systems, diverse cultural traditions, and visual symbols . . . (and) create visible landmarks and artistic points of reference. These projects should serve as beacons that will build community pride and reinforce community identity,” (Ch.7, 14).

Although the plan presents a series of distinct goals, one might ask if a common design framework would establish a more coherent sense of place. The city’s current approach to addressing park, public space, and public art goals suggests an eclectic mix of interventions which, while full of character, could be anywhere and may not be mutually reinforcing. There is nothing distinctly unique to Olympia about the current approach as embodied in the Comprehensive Plan. Using a unique feature such as the artesian wells to inspire design and to address city identity, spatial variation, diverse civic experience, history, culture, and urban character can truly enhance Olympia’s sense of place and quality of life awhile creating a coherent set of interventions across the city or at least the downtown.

02.00 OLYMPIA'S PUBLIC SPACE NEEDS AND OPPORTUNITIES

Olympia's vision for the future is compelling but the city's approach neglects a number of important concerns. These concerns include the city's desire for increased downtown density, its desire for a distinct sense of identity and place, and its stated interest in providing a diverse public space experience.

02.01 PLANNING FOR INCREASED DENSITY REQUIRES MORE PUBLIC SPACE

While the Comprehensive Plan offers a progressive vision for Olympia's future parks and public art, it is nonetheless disappointing that it does not address additional park space in the downtown core. The absence of an approach to creating more public open space is surprising given the city's planning goals: "Increasing downtown housing is imperative in the revitalization of downtown Olympia" (City of Olympia 2013). As part of the 2010 public engagement process for the Comprehensive Plan update, the City developed a comment worksheet. Among its primary assumptions: "Expanding the downtown housing base will create a more vibrant and economically viable community center and a more sustainable business environment." The worksheet described current and anticipated housing conditions:

State forecasts suggest Olympia will receive 20,000 new residents over the next 20 years. Prior community input identified "compact urban development downtown" as the best way to channel growth. There are 1,541 dwelling units downtown, though few market rate homes have been added over past 20 years, despite reduced impact fees, residential tax breaks and other city incentives. A recent study indicates a market for 50 to 100 apartments and 25-40 condos, per year, under improved market conditions. Prior studies suggest middle and upper-income housing demand will be driven by access to amenities (e.g. adjacent to parks, Percival landing, shopping, beautiful streets, and/or views). (City of Olympia 2010)

Olympia's interest in increasing downtown density can also be seen in a March 2010 Housing Study conducted by Heartland LLC:

There is currently a very limited supply of existing apartment and condominium product in the downtown area. The City hopes to create a more vibrant, attractive downtown area by increasing the number of units and diversity of housing options. Adding residents to the downtown is seen by the City to be key to achieving its other goals for downtown, which include: strengthening the existing business core; promoting a vibrant arts and cultural environment; and fostering an 18-hour downtown. (2)

As there is clearly an emphasis on increasing downtown housing density, it is surprising that the Comprehensive Plan fails to prioritize provision of additional public space to support the anticipated increase in downtown residents. This disconnect may reflect concerns about the cost of downtown real estate or competing plans for limited space, but it may also arise from a somewhat limited vision of what public space can be.

02.02 PARK DIVERSITY AND BROADER CONCEPTIONS OF PUBLIC SPACE

Developing a versatile network of neighborhood parks can be a flexible way to achieve a comprehensive park system. Given Olympia's density aspirations, this approach should not neglect downtown. Some downtown placemaking initiatives are highlighted on the city's "The Downtown Project" web page, suggesting that smaller moves form the city's strategy for addressing its core. In the past year, two "parklets" (parking spaces converted into small public spaces with seating) were constructed in downtown Olympia, and three more are planned. Notably, the parklets are situated directly opposite restaurants. In these locations these spaces can seem like extensions of the businesses rather than new public spaces, accessible to all. Nonetheless, they have successfully contributed to civic life by supporting casual activities such as people-watching, temporary cover and seating, and outdoor dining. Another enhancement to downtown is found in plans to convert two alleys into "public plazas" during summer 2013 (City of Olympia 2013). No plans for the plazas are available yet (May 2013), but this intervention offers another clue that Olympia sees a need for additional downtown public space that prioritizes pedestrians over vehicles and is pursuing creative solutions to achieve this goal. In addition, the city is installing "tree benches" for additional seating around established street trees. Finally, several alleys will be named after historic "Mosquito Fleet" steam ships, a small move that connects place, history, and way-finding (City of Olympia 2013). These interventions

are all focused on passive activity, and, therefore, do not address the need for truly diverse civic space in the downtown core. However, parklets, tree benches, and alley-plazas begin to challenge traditional ideas of public space and parks, and Olympia is beginning to cross a few traditional boundaries in its effort to enhance civic life.

Missing from these places is room for play, activity, and exercise. In the Comprehensive Plan, new facilities for active recreation are imagined at community parks in the neighborhood network outside of the city center. Nonetheless, the 2010 Olympia Parks, Arts and Recreation Department (OPARD) Plan prioritized the need for active recreation opportunities. The OPARD plan even recognized the popularity of controversial sports such as skateboarding:

In order to accommodate the growing numbers of skaters, OPARD should consider adding another skating facility . . . also consider incorporating 'skatespots' into existing or future neighborhood parks. 'Skatespots' is a term coined by the City of Seattle to mean small developments that may only consist of one or two features such as a ledge, rail, or transition element. This would be a relatively low-cost way to add interest to a neighborhood park for youth and a good way for beginners to practice. (City of Olympia 2010, 85)

Meeting active recreational needs in downtown public space appears appropriate, particularly as groups of teenage skaters already socialize in the downtown streets. And, of course, the cost of gym membership can exclude many. Many reports emphasize integration of exercise opportunities into city infrastructure, making policy recommendations such as: "Develop and provide guides for cities, zoning authorities, and urban planners on ways to modify zoning requirements, designate downtown areas as pedestrian malls and automobile-free zones, and modify residential neighborhoods, workplaces, and shopping centers to promote physical activity" (Nestle and Jacobson 2000, 20).

Ideas of play and opportunities for playful recreation should not be limited to youth. In many northern European cities, adults are also invited to play in public spaces. Play infrastructure such as parkour courses and innovative exercise equipment is integrated into public space with the expectation that both youth and adults will use the resources. Play risk tolerance in countries such as Denmark and Sweden appears to be much higher than in the United States, in part because of the threat of litigation here. A high risk tolerance is clearly visible in the diversity and flexibility of play structure design in Scandinavia and in its presence in unexpected, unsupervised situations. (Figures 48-57)

**RETHINKING PUBLIC
SPACE AND PLAY**

(All images by author)



Figure 48. Parkour in a public space, Sweden



Figure 49.
Climbing wall / park entry arch, Denmark



Figure 50. Play structures bridging public plaza and school yard, Denmark



Figure 51.
Parkour structures in public space, Denmark



Figure 52. Temporary installation on a waterfront pier in Seattle (by team of students, including author)



Figure 53. Park with a yellow rubber banana, Denmark

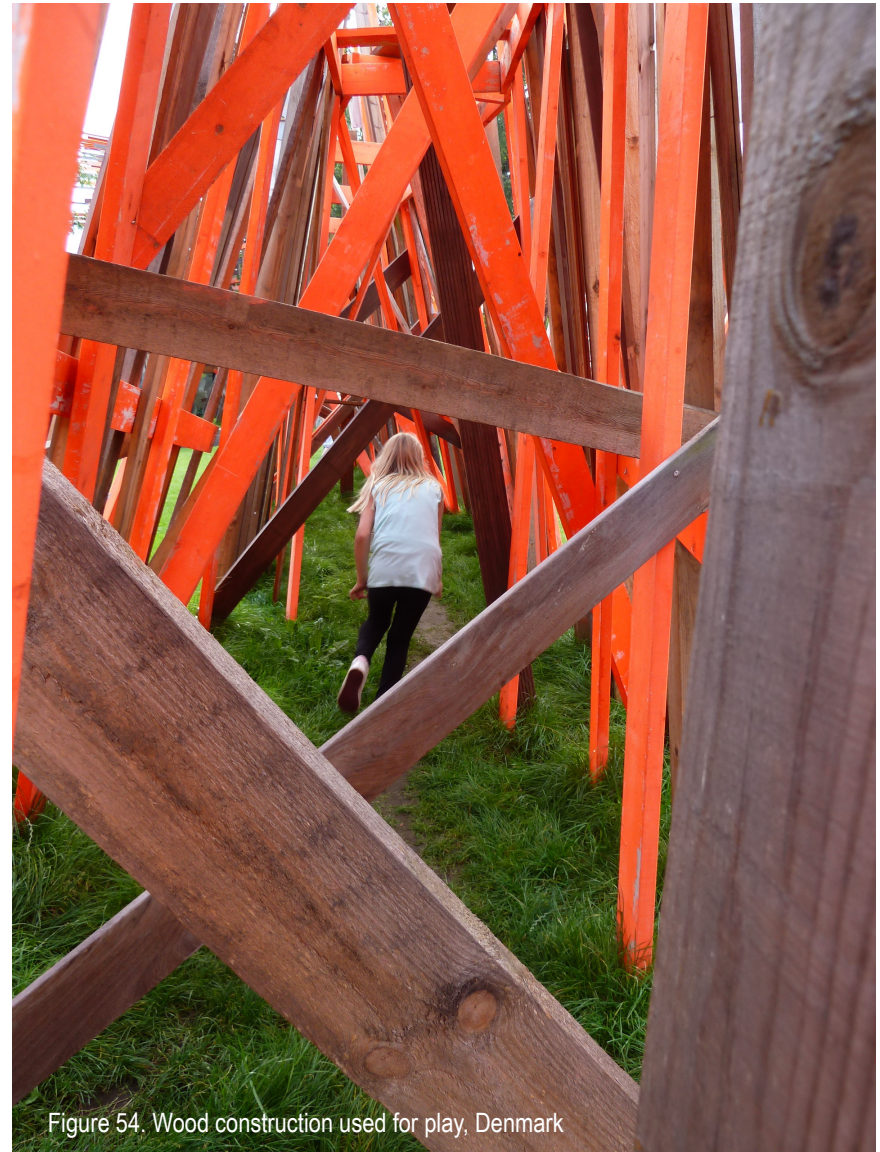


Figure 54. Wood construction used for play, Denmark



Figure 55. Swinging bridge in public space, Denmark



Figure 56. Temporary play structures, Denmark



Figure 57 Musical instruments in a public park, Denmark

Civic enhancement should address the public realm of streets as well. While establishing a strong identity on the streetscape is listed as a priority in the Comprehensive Plan, few initiatives have been undertaken to address sense of place. Streetscape enhancement was identified a city goal as early as 2003, when the city explored possibilities through a study conducted by Arai/Jackson Architects & Planners, with Berger/Abram Engineers:

The City has committed to ongoing downtown revitalization through public and private investment and as the location to concentrate high density housing development. However, the downtown presently lacks an overall cohesive visual and functional identity. Implementation of the Streetscape Strategy will help develop an overall cohesive downtown look and identity which in turn will improve its attraction to visitors and investment. (City of Olympia 2003, 11)

These consultants suggested a distinctive orientation system: “A downtown wayfinding plan would provide a cohesive signage system for all of downtown, and would help unify downtown streets visually . . . it would direct users to key destinations and . . . provide a specific downtown identity which would be widely recognized as downtown Olympia” (21). However, these proposals never led to actual improvements. In Olympia a strong sense of place-identity is still absent.

Three compelling directions for public space enhancement should be further explored: designing additional downtown spaces in nontraditional forms; designing space that promotes physical activity as well as passive recreation; and designing a coherent, city-wide wayfinding or identity-enhancing system. Together these directions would begin to address missing components of Olympia’s civic infrastructure. They can also become strategies to celebrate and cultivate historic and ecological resonance with the city’s unique artesian water. The design section of this thesis explores these opportunities in detail.

03.00 AN UNEXPECTED OPPORTUNITY: FROM PARKING LOT TO PUBLIC SPACE

In 2010 Olympia purchased a Diamond parking lot to accommodate city fleet vehicle parking. This parking lot is located between Jefferson Street NE, Adams Street SE, 4th Avenue E, and 5th Avenue SE - right in the downtown core. This property includes Well Site #46 – one of the most



Figure 58. Parking lot with Artesian Well #46 purchased by the city of Olympia. (Base image: Google, 2013)

significant free-flowing historic artesian wells in the city. [Figure 58) City acquisition of the lot thus created an unexpected opportunity to address artesian water in public space in the downtown core. In 2012 the city decided to reimagine the site accommodating both parking and public space, thus creating the first new park in the downtown core in several decades.

In 2011 the city sought input on how the property with Well site #46 might take form as a park. In October 2011, the city conducted a public visioning workshop under the guidance of the nonprofit group “Project for Public Spaces” (City of Olympia 2012). This planning session confirmed that there was strong community interest in downtown park space and generated an eclectic but interesting range of possible amenities and activities for the site.

Several elements were suggested by multiple participants (PPS and City of Olympia 2012):

- Artistic expression (murals, public art, interactive art, performance space)
- Space for vendors, food trucks, markets or fairs
- Play areas –for children and for adults - ranging from very active (bike polo/basketball/climbing wall) to less active (shuffle board, game tables, board games)
- Water emphasis (fountain, water feature, pond)
- Shelters (permanent and/or removable)
- Social spaces – seating, gathering, and performance spaces etc.
- Orientation elements (ground map, signage, entry archway etc.)

These suggestions contribute an eclectic vision for the downtown space that includes a range of physical activities and experiences as well as a strong emphasis on place-making and identity-creation.

The next step took place in fall 2012 when the City Parks, Arts and Recreation Department established an internal design team including city staff, City Council members, the Public Works Director, Community Planning and Development Director, Police personnel, Planning Department staff, and Code Enforcement personnel (Oestreich 2013). This group met in October 2012 and developed the following list of challenges and goals for the new downtown park.

October 17, 2012 Artesian Well Site Design Team Meeting Notes (City of Olympia)

PERCEIVED CHALLENGES	“I WANT THIS PROJECT TO . . .”
Single user group dominated	Win an APWA award
Poor lighting	Create a safe and attractive environment
Site lines	Be welcoming to all
Nothing to do in space	Become another destination in our downtown
Proximity to bars	Be so cool that Council will make it a funding priority
No identified budget	Installed early in 2013
No “eyes on the area”	Entertain me

PERCEIVED CHALLENGES	“I WANT THIS PROJECT TO . . .”
All businesses closed during the day	Give me another reason to come downtown
No connection between street and the well	Not be a repeat of what we experienced in 2012
No signage re: existence of well	Inspire an adjacent owner to “change their front door”
It has a negative reputation	Open with a “total wow factor”
Known as a “drug” place	Be locked at night
Former rail depot – contamination	Improve parking on side of lot
No electricity on site	Partner with adjacent building owners
Parking lot, but nobody parks there	Be a managed space
“No purpose” – a place to “hang”	Have rules to govern it
Not a “park”; therefore, need ordinances to allow for enforcement	Be successful
Currently, no clear vision of what we want space to be	Not have unanticipated consequences of driving homeless back to 4th Avenue
Water-users are feeling threatened	Offer experiences for kids
“Urination wall”	Remain accessible to well users
What will homeless advocates say?	Tie in well with other downtown activities
Lack of rain for 89 consecutive days	Promote positive behaviors
No cover for year-round use	To be a flexible use space
No other uses	To be lighted properly
Space is not defined, or is defined by uses going on around it	Not be boring
Homeless “will not go away” – are a part of our downtown	Build on the uniqueness of the well
Not actively managed as a public space	Get a positive image soon
Be easy to maintain	Be a catalyst for other neighborhood revitalization
	Be different than other public spaces
	Offer unique experiences
	Promote active recreation

Figure 59. Design Team Meeting Notes.

The city's internal design team generated these goals and challenges to establish a conceptual plan for the site that was shared with local businesses, concerned interests, and the public. On March 7, 2013 the City Parks, Arts and Recreation Department held a public meeting to garner comments on the conceptual site design developed by the internal design team (Figure 59). Eighteen people attended including city staff, a former mayor, design team members, and area residents. The majority of community attendees were members of the artesian water advocacy group, H2Olympia. In their comments, the advocates prioritized access to and collection of artesian water over any other public benefit. In particular, elderly water collectors were a concern, as was retaining vehicle access as close as possible to the collection site. The artesian advocates also expressed interest in developing other collection points that would relieve pressure on Artesian Well Site #46, and urged the city to look for alternatives. By early summer 2013, the City had approved \$100,000 in its 2013-18 Capital Facilities Plan for the first phase of the park, which they hope to construct between June and September 2013. For details of the proposed design (and my public comment response), see Appendices C and D.

The creation of this new downtown park is an exciting opportunity, but Olympia's current proposals do not yet meet the potential of the site for addressing the many goals the city has for civic enhancement.

04.00 FOUNDATIONS FOR A NEW EXPERIENCE OF PUBLIC SPACE IN DOWNTOWN OLYMPIA

Downtown Olympia needs new forms of creative experience, cultural grounding, and active play. Strong design values have been articulated in the city's Comprehensive Plan and in public commentary during the update process, but they have not yet been realized on the city's streets and public open spaces. Thoughtful and artful designs for public space that reconnect Olympians with their history, culture, and landscape are needed. In summary, this thesis argues that interventions that would enhance the experience of Olympia residents and visitors alike must include:

- *Concentrate additional public space in downtown Olympia.* Diversify these interventions to include larger civic spaces as well as artful wayfinding strategies and smaller, unique public spaces that link history, ecology, and culture. Provision of public space in the urban core will very likely encourage longer stays and associated economic benefits.
- *Establish a network of artesian urban parks to provide a broad range of public space benefits.* Enhance downtown civic life in antici-

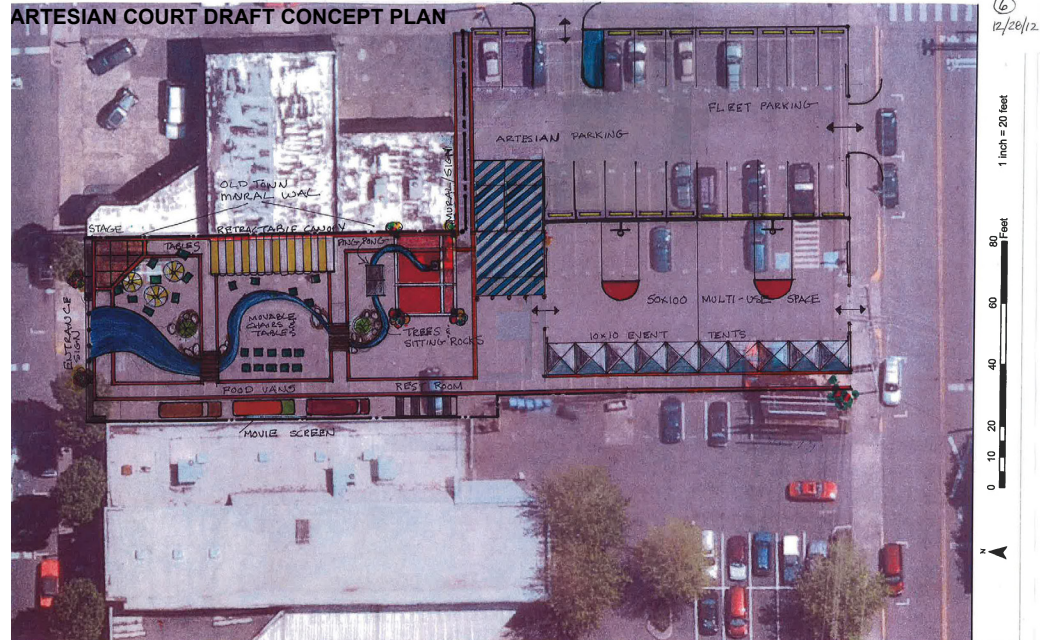


Figure 60. Conceptual design for “Artesian Court”.
(Image: City of Olympia)

pation of residential infill and population density increases. Develop several distinct spaces and offer unique activities at each.

- *Design new sites to include opportunities for exercise and active recreation.* Active play, in addition to respite and green space, is a critical part of public life. Activities should place particular emphasis on youth and adult play (table games, exercise equipment, skateboarding infrastructure, bocce ball, exercise equipment such as pull-up bars and climbing structures, tether ball, ping pong, game tables for chess and checkers, basketball hoops, handball courts, and/or multi-functional elements that can be used in a variety of ways for exercise).
- *Celebrate artesian water in new public space design.* There are multiple opportunities to work with this concept. Span the city to create a cohesive and compelling historic, ecological, and cultural theme that ties the new civic space system together.
- *Develop strong identities for the new spaces to foster a powerful sense of local character, identity and way-finding.* Use art and creative, unusual design to enhance public space at both the site and streetscape scale to transform Olympia into an “artesian park city.

CHAPTER 4

REVIEW OF POTENTIAL DESIGN STRATEGIES: A PRECEDENT REVIEW

CHAPTER 4 **REVIEW OF POTENTIAL DESIGN STRATEGIES: A PRECEDENT REVIEW**

01.00 ARTESIAN WELLS AS A BASIS FOR PUBLIC SPACE DESIGN

Just as artesian water follows many paths through the stratigraphy of Budd Inlet, disclosure of its presence should not be limited to a single strategy. The challenge to the designer is to tell multiple stories within multiple scales, in a non-linear framework. This thesis proposes a series of design interventions at several scales and in several forms. These address many of the questions explored earlier in this document regarding the origins of artesian water, the many wells in Olympia, their disappearance, and their significance. Using nested design elements at multiple scales can reveal the presence of Olympia's artesian water and its associated narratives. This approach will create a unique sense of place and identity while also promoting a stewardship ethic.

01.01 MULTI-SCALAR DESIGN CAN REVEAL THE OVERLOOKED

This section of this thesis explores some of the techniques used by others to reveal a variety of narratives in the landscape. These examples offer possible precedents that may be useful in considering a design in Olympia. These precedents often reveal narratives within multi-layered systems, embracing innovative tactics and forms, suggesting ways to enhance civic experience at multiple scales. This section of the thesis presents these precedents at three (nested) scales, again, relating to the design structure of this thesis. First, this review addresses the scale of the landscape and the city. Second, stepping down in magnitude, this section examines precedents at the scale of trails, narratives, and networks. Third, this section examines selected precedents at the site scale. The discussion stresses the most compelling and relevant aspects of design for each precedent. Elements drawn from these precedents contribute to the design strategy and framework for Olympia and the artesian wells presented in this thesis.

02 PRECEDENTS AT THE SCALE OF THE CITY AND THE LANDSCAPE: STRATEGIES TO REVEAL BURIED NARRATIVES

02.01 THE MARK – A TACTIC TO MAKE THE INVISIBLE VISIBLE

At the citywide scale, artesian well sites can be linked to integrate awareness of ecology, community storytelling, wayfinding, and public art. The physical event of flowing water is absent at most sites today, but approximate knowledge of where the wells once flowed survives. Making evident the locations of historic well sites and their related stories creates the opportunity for a citywide marking system. Such a citywide marking system can tell the story of Olympia's landscape through time. Most compellingly, marking the well sites provides the “perceptible indication of something not immediately apparent; a suggestion that something has happened”. . . (Oxford English Dictionary Online 2013). This approach to design reveals the artesian aquifer, the former and existing well sites, and the social histories that relate to these sites. The following precedents present examples of the process of marking at multiple scales and within larger organizational systems. These precedents suggest ways of working within systems and of “marking” the presence of something overlooked.

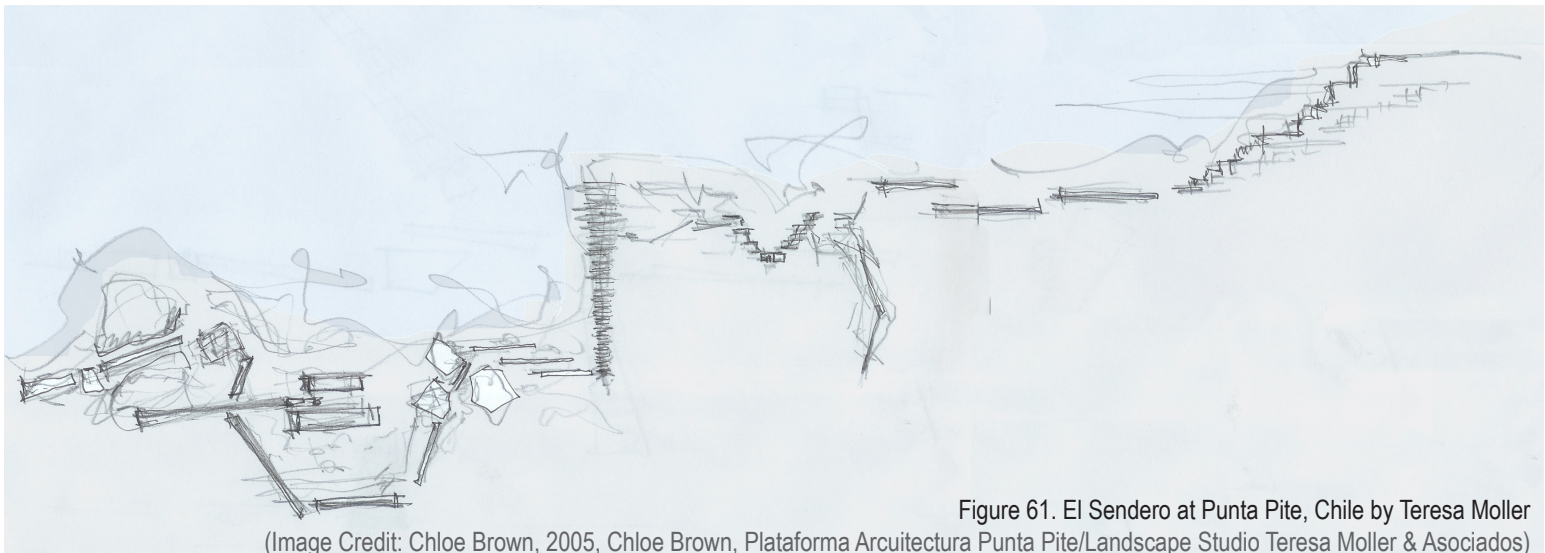


Figure 61. El Sendero at Punta Pite, Chile by Teresa Moller
(Image Credit: Chloe Brown, 2005, Chloe Brown, Plataforma Arquitectura Punta Pite/Landscape Studio Teresa Moller & Asociados)

02.02 PRECEDENT I

El Sendero (the path) at Punta Pite, Chile | Teresa Moller & Associates | 2004-2006

Landscape architect Teresa Moller described Punta Pite, a project situated midway along the coast of Chile.

It is a discontinued [discontinuous] walk where you have to find your own way . . . where the construction is done only in the places where it was needed. If the rock wants you to walk on it you do not need to build a path. . . The fact that it is a discontinuous path makes you look for directions or signs in the landscape . . . and gives you the possibility to be in or out of the path . . . giving you different experiences in the landscape. The contrast between nature and human intervention is really dramatic. Sometimes it is absolutely clear where to walk and to go . . . where you are at . . . and sometimes you have to search for clues . . . like in life. (Moller 2009)



Figure 62. El Sendero detail. (Image Credit: #littoral, 2007, "Pure Geography," <http://pruned.blogspot.com/2007/10/pure-geography.html>, accessed 3/1/2013)



Figure 63. El Sendero detail. (Image Credit: Chloe Brown, 2005, Chloe Brown, Plataforma Arquitectura Punta Pite/Landscape Studio Teresa Moller & Asociados)

In her talk, Moller emphasizes that the project forms a fragmented path rather than a continuous trail. Designed to connect a seaside subdivision with the towns of Zapallar and Papudo, the “path” does so through simple, elegant insertions of small sections of pathway or stairs into the landscape. Pedestrians enter this intermittent path at multiple points to walk to the ocean or to move north or south along the coast. In a 2007 Landscape Architecture Magazine article, architectural critic Jimena Martignoni recorded Moller’s intent: “The path is not marked or signed in any way,’ she says. ‘Its direction has to be discovered by whoever is walking” (Marignoni 2007, 80). The resulting experience engages people in an informal way. They can choose to follow subtle cues embedded in the landscape or instead to be entirely “out of the path,” shaping their own experience. Beginning, middle, and end receive equal emphasis in the design.

Moller’s quiet project responds only to moments in the landscape that invite intervention. It takes form to ease passage where the walk becomes impassible or difficult; otherwise, the landscape remains undisturbed. The interventions appear scattered into the landscape, disconnected and unimposing yet simple and powerfully evocative. Moller’s understated approach encourages the experience of discovery, allowing the connective fragments to emerge and sink back into the landscape. Compelling aspects of Moller’s Punta Pite project include:

- A series of discontinuous pathways mark a route along the coast while providing an immersive experience.
- The interventions “mark” the suggested path in a much less scripted manner than a continuous trail would create. Moller’s design deliberately encourages a range and choice of experience.
- The physical form of the marking interventions contrasts subtly with the existing landscape; geometric form makes them apparent, yet the material choice of stone integrates the pathways seamlessly into their lithic surroundings.
- The interventions heighten awareness of the broader context through contrast. A dramatic stairway makes it possible to move from the top to bottom of a boulder-covered bluff, drawing attention to a dramatic topographic shift in the landscape. Horizontal planes float smoothly through fields of water and wind-rounded rock, making it easier to traverse the expanse of rolling natural forms.
- Physical contrast also works at a finer scale to reveal details that might otherwise be overlooked: the highly textured patterns on the rocks become more apparent next to the simple horizontal plane of a walkway.
- Moller’s design interventions allow elements of risk and drama to enrich the experience.



Figure 64. El Sendero detail. (Image Credit: http://ghostanddove.tumblr.com/post/26468623477/enochliw-punta-pite-by-teresa-moller#=_, accessed 3/1/2013)



Figure 65. El Sendero detail. (Image Credit: #littoral, 2007, "Pure Geography," <http://pruned.blogspot.com/2007/10/pure-geography.html>, accessed 3/1/2013)



Figure 66. El Sendero detail. (Image Credit: Chloe Brown, 2005, Chloe Brown, Plataforma Arquitectura Punta Pite/Landscape Studio Teresa Moller & Asociados)



Figure 67. El Sendero detail. (Image Credit: Chloe Brown, 2005, Chloe Brown, Plataforma Arquitectura Punta Pite/Landscape Studio Teresa Moller & Asociados)

As a model for an artesian well marking system, Teresa Moller's project offers many lessons. The idea of a discontinuous yet coherent trail crossing a landscape is appropriate to the integration of artesian well marks into the existing grid of downtown Olympia. The marks may exist both as independent elements and as part of the larger whole. This approach also allows for a choice and range of how the artesian well marks may be experienced. The subtlety of Moller's interventions allows components of her trail system to disappear and reemerge. Her strategy provides a nice model; a similarly subtle intervention in Olympia might avoid disrupting the downtown streetscape with overly intrusive, graphic, or contrasting marks. Instead, a marking language that contrasts subtly with the existing infrastructure - yet emerges with a repeating pattern - will be powerful, heightening awareness of the well sites without creating distraction.



Figure 68. Tudela-Culip (Club Med) Restoration, before and after, by EMF. (Image Credit: EMF, <http://www.asla.org/2012/awards/365.html>, accessed 2/1/2)

02.03 PRECEDENT II Partage de Tudela-Culip (Club Med)
“Cap de Creus” restoration in Catalonia, Spain | Estudi Martí Franch [EMF]
Landscape + Ardévols Associates Consultants| 2005-2010

A 2012 ASLA Honor Award recipient for “landscape driven restoration,” this project in Spain dismantled a 1961 Club Med resort as the core of an extensive restoration project on the Mediterranean Coast. (ASLA 2012) Now a Spanish National Park, the site includes a series of interpretive elements built to connect visitors to the twice-altered, but now healing, landscape. EMF focused on “identifying, unveiling and eventually transforming a site, to fit with what is already there . . . revealing & celebrating ‘the real’ landscape and its specificities” (ASLA 2012). As part of the interpretive program, deconstruction debris was repurposed to reveal the site’s recent history while providing a new function.

Compelling aspects:

- The intent of this project was to “make apparent” qualities of the landscape that had been disguised by the former development. EMF adopted a minimalist approach, selecting and highlighting discreet points within the greater natural system of the coastal landscape and using a series of paths and viewpoints to “unveil” the landscape.
- Experienced as a whole, the various interventions tell a complete story. Experienced in isolation, the elements reveal stand-alone parts of that larger story.
- A hierarchy of nested circulatory systems reveals the site. The paths vary from a roadway, to subtle footpaths, to routes indicated only with “low dispersed railings leading to a secondary network of viewpoints and sensitive areas” (ASLA 2012). The movement and viewpoint system uses embedded networks with great success.
- A limited palette of materials is used throughout the site, unifying the project. Recycled materials reveal historic narratives.
- Contrast between designed and inherent landscape elements is bold. This makes narrative moments easier to find.
- “Animal-rock identification” forms the basis of a whimsical landscape experience. Adopting historic way-finding tools used by local fisherman, EMF identifies certain rock formations with the names of animals that the forms evoke. This engages visitors through play and perception games. The experience of seeking and finding these moments in the landscape reveals layered social, natural, and historic narratives through play and creativity..
- The design utilizes a combination of deconstruction and construction to reveal narratives; a thoughtful interplay of removal and addition.

This project presents a model of the useful tactic of embedding narratives within layers of nested systems. EMF designed a series of path systems at different scales, developed to different degrees. A few “scripted experiences” are embedded within the larger framework, enabling visitors to choose guidance or independence for their experiences of the landscape. The integration of whimsical interpretive activities is also an important aspect of this project. This approach serves to make the landscape more engaging and accessible for a wide range of ages and individuals.

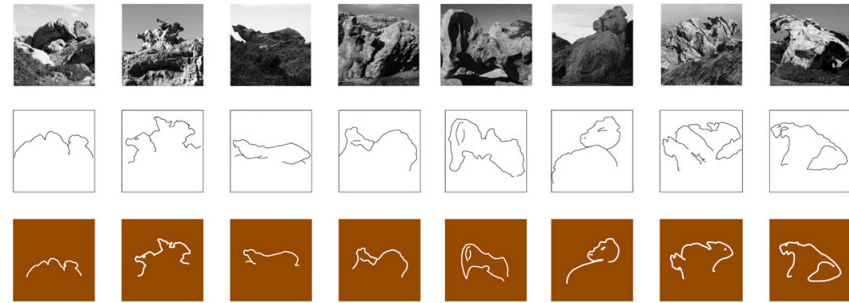
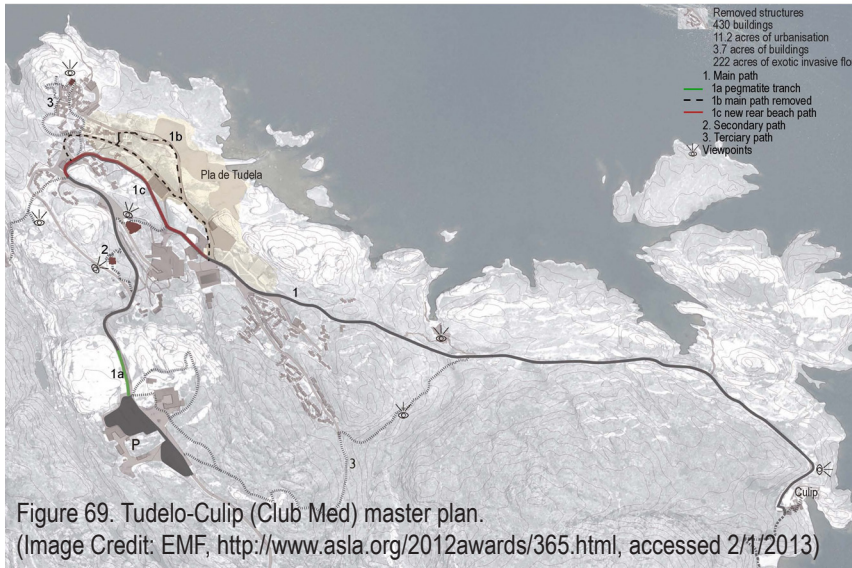




Figure 73. Tudelo-Culip (Club Med) pathway.
(Image Credit: EMF, <http://www.asla.org/2012awards/365.html>, accessed 2/1/2013)

Unsanctioned art in the public realm: a catalyst for public conversation

Street art can offer a useful precedent for a marking system (but first it is important to define terms). In the discussion that follows, street art does not include overly damaging or destructive tactics. It does not include the types of graffiti that establish territorial boundaries between gangs, nor is graffiti intended to deliberately and maliciously deface public or private property. (Figure 74) Here street art is recognized as a form of creative expression. In many cases it may give voice to otherwise invisible perspectives and experiences; to provoke discourse; to question the status quo; to awaken people from the stupor of daily routine. Street art questions what it means to live in a vibrant city, what public space should be, and whether public space is expanding or contracting. It is important to acknowledge that there is a radical, rebellious side to street art precisely because it is generally unsanctioned and because it challenges complacency. In his essay *(Not) Your Everyday Public Space*, scholar Jeff Hou argues that such “insurgent” or “guerrilla” activities may reintroduce democratic ideals into the civic sphere:



Figure 74. Graffiti in Zagreb, Croatia
(Image by author)

If public space is where identities, meanings, and social relationship in cities are produced, codified, and maintained, it is through insurgent public space that alternative identities, meanings, and relationship can be nurtured, articulated, and enacted. Through the variety of actions and practices, insurgent public space enables the participation and actions of individuals and groups in renewing the city as an arena of civic exchanges and debates. Through continued expressions and contestation, the presence and making of insurgent public space serves as barometer of the democratic well-being and inclusiveness of our present society (Hou 2010, 15-16).

Street art gives voice to the voiceless

One of the remarkable things about street art is its ability to make visible the invisible. One example is the urban roadside memorial that suddenly appears in the form of a white “ghost” bicycle near an accident site. The unsanctioned interventions make apparent the risks and problems of cycling in a car-privileged transit system, as well as memorialize people who lost their lives (Figure 75). Similarly, marginalized populations often use street art to draw attention to their circumstances even (or especially) if that topic is unpopular in the public sphere (Figures 76 and 77).



Figure 75. Ghost bike at accident site.
(Image: <http://en.wikipedia.org/wiki/File:Ghostcycle-2005.jpg>, accessed 5.14.2013)



Figure 76. Political street art in Italy. (Image by author)



Figure 77. Political street art in Italy. (Image by author)

Carlo McCormick, pop culture critic and author of *Trespass: A History of Uncommissioned Urban Art* notes:

. . . our mark-making today so often acts as surrogate for the passing of that which has otherwise not made a physical mark. It is an emotional registration – not a landmark, but a remark- a way of conjuring peoples and places that, in the city’s perpetual pursuit of empirical progress, get eradicated or displaced from a community. (83)

McCormick explores the notion of street art “as a cultural registration” that “takes its power from saying someone was here, regardless of whom” (52). Understanding street art as a physical and/or emotional registration mark seems especially appropriate for the many artesian well sites that have been lost. Such marks can register the presence or absence of free-flowing artesian water and make apparent the complex relationship between a city and one of its earliest natural resources.

Street art reimagines boundaries

Street artists offer alternatives for conceptualizing a public space that does not always end at property lines or the curb of a street. By using building walls, roadway surfaces, abandoned structures, empty lots, sidewalks, street furniture, and other elements of the city as a medium for expression, street art questions the boundaries of public space and asks if they are always appropriate. Creative opportunities follow and have the potential to enliven civic life in ways that traditional boundaries suppress. In the Fremont neighborhood of Seattle, an empty underpass became a popular destination when the Fremont Troll was constructed in 1989. (Figure 78) The project came into being after community members envisioned a different form to otherwise overlooked space under the Aurora Bridge, and convinced the local arts council to accept a more creative vision (Fremont Chamber of Commerce 2012).



Figure 78. Fremont Troll, Seattle.
(Image credit: M. Hardwick)



Figure 79. Street art in Copenhagen, Denmark.
(Image by author)

Street Art Challenges the Status Quo and Imagines Alternatives

Street art can become inspiration for public engagement regarding controversial issues. (Figures 80 to 83) In the context of Olympia's public health regulations, the continued use of the artesian wells has become a rebellious gesture provoking discourse about public access to water, how water should be managed, and what other alternatives might be feasible. The advocates of artesian water question the current drinking water system in downtown Olympia because it is not the only viable possibility. Street art can be used to trigger additional discussion and to engage a broader segment of the Olympia community.



Figures 80a (above) and 80b (center bottom). Participatory street art, Olympia. (Images by author)



Figure 81. Political street art, Denmark. (Image by author)



Figure 80b



Figure 82. Political street art, Croatia (Image by author)

As Urban Vernacular Language, Street Art Contributes to a Sense of Place

Street art is often a whimsical means of cultivating neighborhood character and contributing to a sense of place. McCormick writes that street art interventions, “like postcards or memorabilia,” serve as tokens of place without which one would feel like he had never been there” (50). Olympia, with its quirky parades, graffiti walls, and diverse urban population already embodies a willingness to entertain unconventionality. [Street art examples] Co-opting the tactics of street art is an appropriate design response for marking the artesian well sites. Anything rigidly structured and unadventurous would disappear under the lively swell of eclectic interests that shapes Olympia. (Figures 84-93)

Compelling elements:

- Street art makes visible the invisible: it marks the presence (or absence) of urban experiences; it reveals dissenting opinions about the public sphere; it gives voice to disenfranchised populations; it discloses alternative artistic visions.
- Street art is often a direct response to the nature of public space: it takes place in and about public space. It reacts to the loss of public space (or its quality and limitations), to restraints on freedom of expression, to the gridding and compartmentalization of life.



Figure 83. Political street art, Europe
(Image: streetartutopia.com)

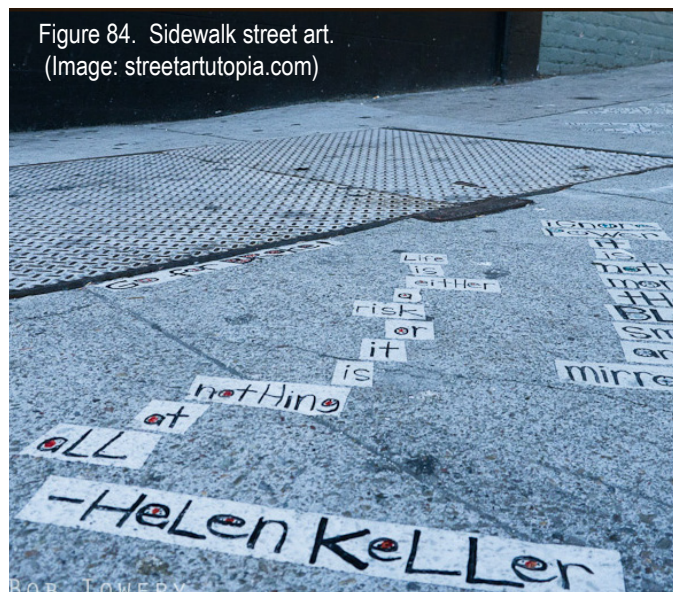


Figure 84. Sidewalk street art.
(Image: streetartutopia.com)

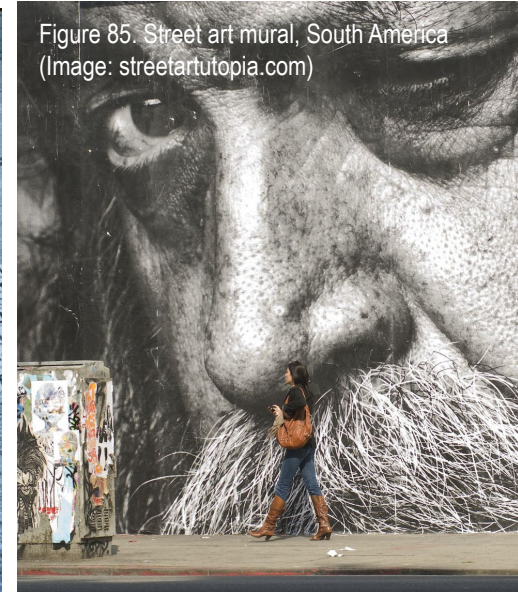


Figure 85. Street art mural, South America
(Image: streetartutopia.com)

- Street art is provocative, acting as a catalyst for discourse about a wide range of topics that can engage a broad public.
- Like natural systems that disregard artificial boundaries, street artists sometimes chose not to recognize typical limits. This can draw attention to the existence of boundaries, can offer alternative visions, and also, can reveal natural systems that function less rigidly with significant resilience.
- Street art expresses alternative visions and imaginative possibilities for the public sphere.
- The physical expression of street art is often innovative, surprising, whimsical, unexpected. It is a form of urban vernacular language. It contributes to a distinctive sense of place.

Some important differences exist between the tactics of street art and the proposed marking system for Olympia’s artesian wells:

- While some forms of tagging and graffiti arguably fall within the aesthetic realm of street art, they are generally “coded” languages accessible only to those who have learned them. In contrast, the artesian well marking system should be mysterious and intriguing, but is should also remain accessible.
- The marking system should ultimately be permanent, whereas most street art assumes impermanence because of its transgressive nature.



Figure 86. Banksy street art, Denmark. (Image by author)

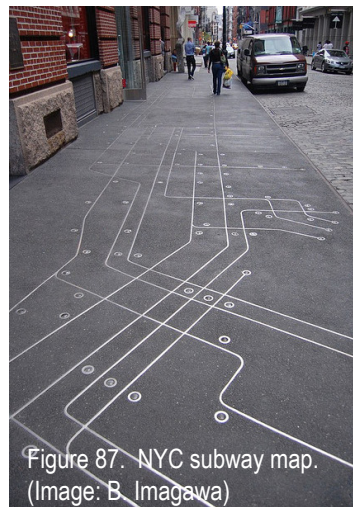


Figure 87. NYC subway map. (Image: B. Imagawa)

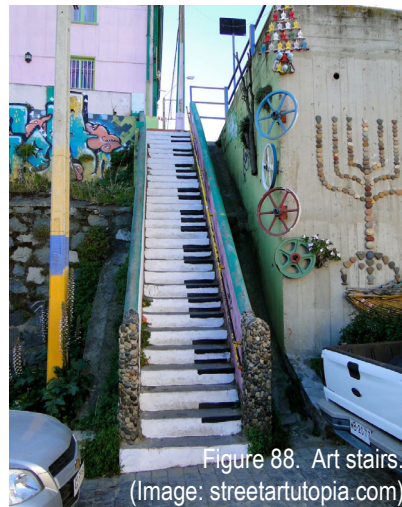


Figure 88. Art stairs. (Image: streetartutopia.com)



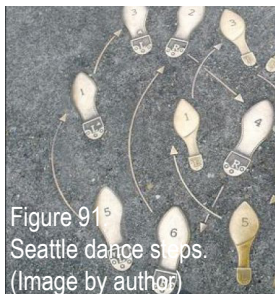
Figure 89. Street art, Portland. (Image by author)

There are many ways that the tactics and intent of street art provide an effective precedent for an artesian well marking system. Most importantly, the elements of unconventional form and material are useful for a marking system that will stand out, yet retain a familiar urban vernacular language. A provocative disregard for boundaries could be adapted to reflect the nature of artesian water flowing underground, and to place marks in surprising locations that make people attentive to the water's presence. As a form of urban language, street art is adept at evoking cultural memories and bringing the past into the present, particularly underrepresented social narratives. Within the context of the artesian wells, this tactic is important for revealing the many stories of Olympia, not just the privileged stories that can already be found in history books and guided tours. The markings should heighten awareness of artesian water as well as catalyze conversation about history, public space, and community resources. The street youth population, the Coast Salish people, the descendants of Chinese laborers, and the story of artesian water from an ecological perspective can add voice to the discussion of Olympia's history and culture. Street art interventions also help to form a strong cultural identity, much like effective advertising. The marking system, if well-designed, will enrich Olympia's identity, expanding it from the capital city to also include the "city of artesian water." Despite its controversial nature, street art is a model for provocative design.

02.05 CONCLUSION: CITY SCALE PRECEDENTS FOR DEVELOPMENT OF A MARKING SYSTEM

At the scale of the city and landscape, a marking system responds most elegantly to the concept - and reality - of artesian water. In Teresa Moller's Punta Pite Trail and EMF's Club Med restoration project, disconnected paths shaped experience by encouraging discovery and connectedness across an expanse of physical space. Unified by limited materials and subtle design, their interventions are powerful tools for marking the landscape. Water is fluid and flexible: there are no grids, no right angles, no property lines in the world of water. So, too, an artesian well marking system must be flexible, adaptable, without boundary and also provocative if it is to raise awareness of history and natural resources in need of stewardship. The marking system can reveal layers of opportunity, shifting the conversation from what is and isn't possible according to public health laws, to how a public asset such as artesian water nested within the commons of public space can best enrich civic life as a whole.

It is also important to reiterate that a marking system, by virtue of its frequent repetition throughout the downtown city streets, can become a form of identity-building. The marks will reveal existing narratives of place and also create a new understanding of place for the present and future. McCormick notes, "Why we need to remember . . . may have less to do with the lessons of history than the construction of cultural identity" (McCormick 2012, 82). In the case of Olympia's artesian wells, it is especially true that remembering the past is also a way of defining present and future identity because a relationship is established. McCormick's observation that street art enacts a form of cultural registration is a perfect framework for acknowledging Olympia's artesian wells: ". . . in the human geography and cultural geometry of space, I was here . . ." (52).



03.00 PRECEDENTS AT THE SCALE OF EMBEDDED NETWORKS

03.01 EMBEDDED NETWORKS OF NARRATIVES, INTERPRETIVE TRAILS, AND PUBLIC SPACE

In this section, the thesis explores strategies that enrich civic life at a scale more intimate than that of the citywide landscape. The most compelling tactics include revelation of embedded stories, establishing narrative frameworks that support participatory community histories, and networked civic spaces. The public art consortium San Francisco Bureau of Urban Secrets approaches the city as a place rich with layered narratives: “Since 2001, the Bureau has staged art and other interventions directed toward visualizing these different histories, asking participants to engage in the process of rebuilding the everyday skills of landscape literacy and the ability to read cities as palimpsests of historical and cultural tests that have all too often been obscured by the numbing demands of negotiating everyday routines” Through creative tactics the Bureau offers “alternative experiences of historical awareness,” (Przyblyski 2010, 196).

The following review of precedents explores how interpretive trails, narratives, and sites might be considered for Olympia and its artesian well marking system. Interconnected yet distinct experiences, a freedom to evolve and adapt over time, play, and whimsy are all critical components of this approach.

03.02 PRECEDENT IV “StoryMapping” | The Center for Digital Storytelling

In *Insurgent Public Space: Guerilla Urbanism and the Remaking of Contemporary Cities*, public space historian Jeffrey Hou describes the overlap between public space and collective public histories:

Public space has been an important facet of cities and urban culture. In cities around the world, urban spaces such as plazas, markets, streets, temples, and urban parks have long been the centers of civic life for urban dwellers. They provide opportunities for gathering, socializing, recreation, festivals, as well as protests and demonstrations. As parks and plazas, urban open spaces provide relief from dense urban districts and structured everyday life. As civic architecture, they become collective expressions of a city as well as depositories of personal memories. As places where important historical events tend to unfold, public spaces are imbued with important, collective meanings – both official and unofficial. (Hou 2010, 2).

The artesian well marking system can offer more than just a physical reminder of the well sites. Each site can also carry interconnected historical, cultural, or ecological narratives. The use of interpretive signage or other conventional narrative systems would be overwhelming and ineffective at the scale of one hundred artesian well sites. Other means of storytelling exist today.

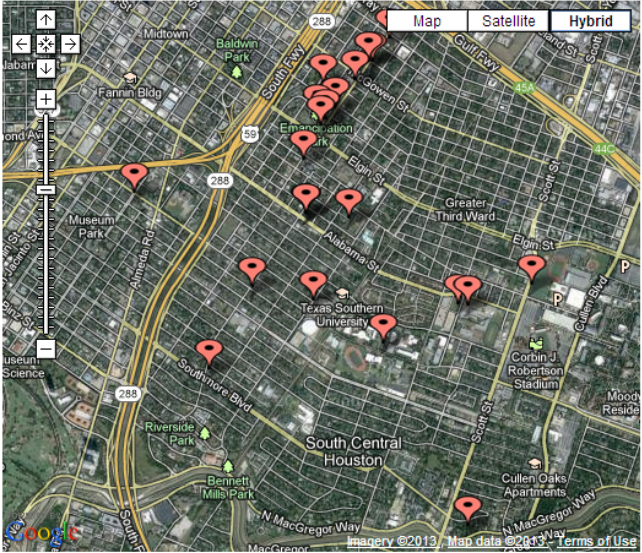
Mapping the Third Ward in Houston Story Work in the Face of Redevelopment

This project took place in December 2006 and July 2007 in Houston, Texas as a collaboration between CDS and Carroll Parrott Blue's *The Dawn Project* to capture stories about the Third Ward, an historically Black community, now facing gentrification and redevelopment that threatens its identity.

We have collected stories about the neighborhood and the personal histories that connect people to the place and to the past, and address the values and perspectives that should inform any development into the future.

The map below provides an outline of the neighborhood and many significant stories and places.

Maps work best with Firefox browser, visit Mozilla.com to download.



- [Emancipation Park](#)
- [Nell Groves Cole's Family Home](#)
- [Luddington's Cafe Center](#)
- [St John Missionary Baptist Church](#)
- [Terri Williams Apartment](#)
- [Texas Southern University](#)
- [Yates High School](#)
- [Provost Photography and Tennis](#)
- [DeLoyd T. Parker, S H A P E](#)

Created by [MapBuilder.net](#)

StoryMapping is a project of [The Center for Digital Storytelling](#), Center for Digital Storytelling • 1803 MLK Jr. Way • Berkeley, CA 94709 USA • 510.548.2055 • info@storycenter.org • 510.548.1345 fax

Figure 94. Mapping the Third Ward in Houston (StoryMapping Project) (Image: storymapping.org, accessed 4.1.2013)

The Center for Digital Storytelling is a nonprofit organization focused on “assisting people in using digital media to tell meaningful stories from their lives” (storymapping.org 2013). It integrates digital mapping technologies and public participation to share stories that link narrative and place. On its website one finds a diverse range of projects created by individuals from around the country. In “Third Ward, Houston” one discovers an eclectic assemblage of community narratives from residents in an historic neighborhood. (Figure 94) The project integrates a mapped walking tour and “group story gathering process” so that visitors can access these digital narratives while touring the streets (CDS and Carroll Parrott Blue 2006). In “I10witness,” New Orleans residents recorded interviews after Hurricane Katrina, then linked the stories together with a neighborhood mapping project (Mondo Bizarro; Bruce Frank and Nick Slie 2005). This project culminated in a place-based cell phone tour for the impacted neighborhoods. In both examples, “StoryMaps” are digital vessels for sharing narratives linked to changing communities and landscapes. They provide an intimate understanding of place that is not linked to official histories but instead reflects very personal experiences built over time. StoryMapping honors similar ideals to those of the San Francisco Bureau of Urban Secrets, “the conviction that enabling participants to rediscover the eloquence always already latent in the public realm as a repository of competing histories will reawaken in them a heightened awareness of the ways in which the form and quality of social experience are enabled and constrained by the forms and qualities of public spaces” (Przyblyski 2010, 196).

Compelling elements of digital storytelling:

- The digital realm allows for multiple forms of narrative (oral history, photograph, short story) and accesses a wider diversity of narratives than can be incorporated in traditional interpretive signs with limited space.
- Digital narratives are nested within a larger system of sites and linked to a specific landscape.
- The ultimate number of narratives is flexible. There is no limit to the storytelling process. Stories can be contributed at any time, in many ways (written, voice, photographic, smart phone etc.)
- The digital narrative becomes an evolving (living) story of its own, in opposition to a fixed, unchanging object.
- The freedom of expression inherent in collected stories (versus scripted stories) better represents the varied social character of the sites and their communities.

This precedent reveals a continually evolving social narrative system; a flexible digital “story bank” that can grow over time as people

contribute oral histories or upload historic family photos of a particular place. The cultural and historic narratives associated with artesian well sites are as important to Olympia as the artesian water itself. For example, Well Site #46 could convey stories of resistance to the well's closure, tales of advocacy for disenfranchised water users, and stories from municipal staff trying to protect public health or conserve a precious resource. Digital storytelling can preserve nuanced community conversations that otherwise might disappear, helping to enrich the civic realm.

03.03 PRECEDENT V The Boston Freedom Trail | 1951

To further explore cultural, ecologic, and historic narratives, this thesis proposes the development of well sites of particular significance as small civic spaces. Such interventions might take many forms, from functional furniture to traditional interpretive signs or artistic explorations, yet each could contribute to the interconnected story of Olympia's artesian wells. The selected sites could become destinations within interpretive trails linked by the marking system and designed to answer specific questions about the history and nature of artesian wells in Olympia.

The Boston Freedom Trail provides a useful precedent because of its historical focus, its simple, bold design, and the way it layers interpretation across sites dispersed through the city landscape. The trail was established in 1951 as the result of a community-based initiative enlisting political figures, journalists, and residents (thefreedomtrail.org 2013). The 2 ½ mile trail leads participants to 16 historic sites scattered across the city. Together the sites tell the narrative of the American Revolution in Boston. The trail is clearly yet simply demarcated by a red line in the sidewalk and a series of markers inset along the path. (Figure 95) The trail has a linear form but its intention is that pedestrians join at any point. They can follow the red line in either direction. The red line was added in 1958 as a painted feature. Over time parts of it became permanent, through the use of red bricks or stone. (Figure 96) The line crosses sidewalks, roads, and intersections alike, dissolving boundaries and tracing connections between disparate spaces in the city. Because of the immediately recognizable red mark, those passing the trail during other daily errands still note its presence and implications, subconsciously acknowledging the history of Boston. In addition to the red path itself, an extensive website and printed maps support the trail experience. The website not only expands upon narratives for each destination, but it links the Freedom Trail to other historic Boston events, landmarks, and pathways. By embracing the broader historical and social context of the trail, its manag-

ers broaden accessibility to a wide range of potential users. The Freedom Trail is now managed by a foundation that shares its success on a range of levels – historic, economic, and social:

Today there are 22 million annual visitors to Boston. History is the number one reason why people visit Boston and the Freedom Trail generates nearly \$1 billion in spending and helps support over 165,000 tourism jobs in Massachusetts. The Freedom Trail remains a dynamic force in the city, interpreting and presenting the dramatic story of brave people who dared to overthrow the mightiest nation on earth for their freedom and the right to govern themselves (www.thefreedomtrail.org 2013).

Compelling Qualities:

- The trail reveals historic narratives in a flexible sequence while crisscrossing an urban city.
- Simple yet bold design makes it immediately recognizable and constantly present.
- The minimalist character of the design integrates effortlessly into the city streets.
- The material palette is simple: metal plaques, the linear form, the color red.
- A website enriches the trail experience with information and links to other historic narratives.
- The red line has become an identifying feature of the city of Boston itself.

An important lesson of the Boston Freedom Trail is that sequential experience of the trail is not a requirement for revealing historic narratives. Interpretive nodes can crisscross a city and be experienced alone or experienced as part of a larger story. This allows the interpretive trail to retain flexibility and accessibility. The trail also uses a distinctive and cohesive visual language to reveal its presence. The red line is effective but it is also playful, inadvertently referencing the “yellow brick road.” The trail offers a simple imaginative pleasure by creating the opportunity to follow a red line across a city while discovering its history. Finally, the network of associated digital information allows for additional layers of meaning as well as links to other resources and the trail’s broader historic context.



Figure 96. Following the Boston Freedom Trail
(Image: P.E. Herr, <http://www.trishalexpage.com>, accessed 4.20.13)

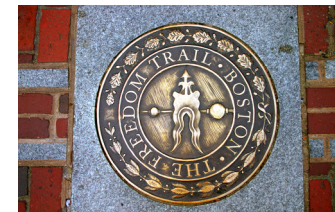


Figure 95. Boston Freedom Trail marker in the sidewalk
(Image: <http://mitsloansos.mit.edu/wp-content/uploads/2012/07/boston-freedom-trail.jpg>, accessed 5.1.13)

03.04 PRECEDENT VI Portland's Municipal Fountain Network

The final strategy at the embedded scale is to develop a new civic space network in downtown Olympia comprised of publicly-accessible sites that retain free-flowing artesian water. These new spaces will enliven the downtown core by providing an interconnected series of destinations celebrating artesian water, history, community, and place.

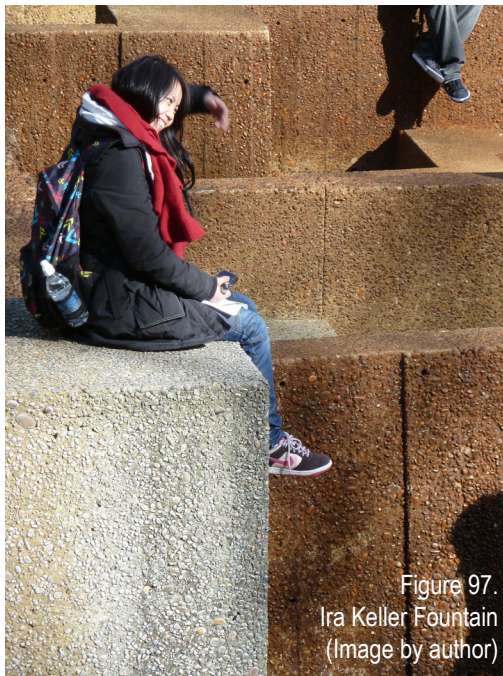


Figure 97.
Ira Keller Fountain
(Image by author)

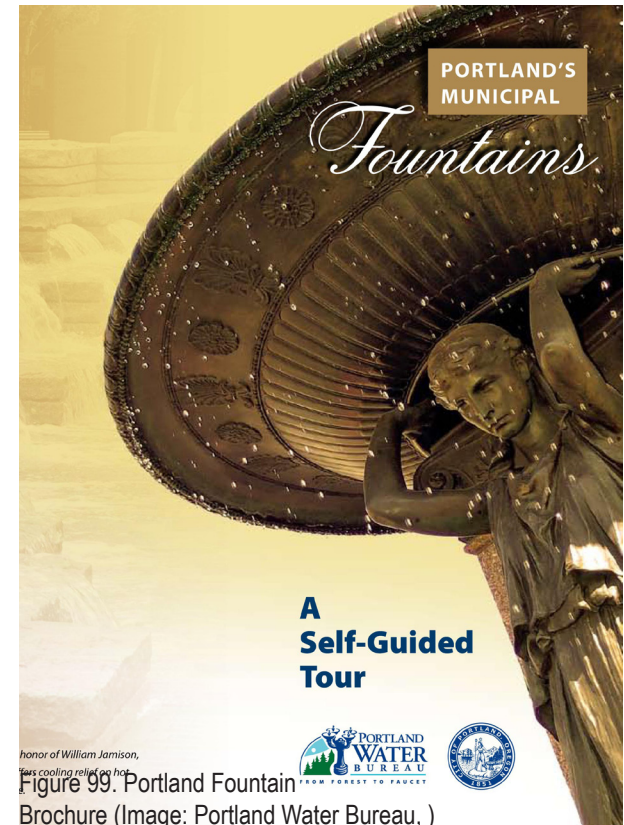
Many cities have extensive public space networks. Of particular interest are public space networks that share a common characteristic, unique to that particular landscape and place. Downtown Portland, Oregon, maintains a network of nineteen public fountains accessible to the public (City of Portland 2013). (Figure 99) Notably, the fountain network started as linked public spaces in Portland's urban renewal program, as envisioned by landscape architect Lawrence Halprin. The first two fountains were created by Halprin during the 1960s, the Ira Keller Forecourt Fountain (1971) and the Lovejoy Fountain (1968) (Symmes 1998, 168). Halprin abstracted nature to design public spaces and create opportunities for kinetic exploration and interaction. Halprin thought of these spaces as events "which have no necessary or recognizable form but which generate qualities of experience (Symmes 1998, 169). Since the early Halprin fountains, Portland added many more to create a collection of sites linked by water. The fountains enhance civic life by offering a variety of experiences that vary from artistic fountains to Halprin's highly interactive sites where people play on hot summer days. Portland recognizes the value of the fountain network and publishes a self-guided tour map of the interrelated public spaces. The city encourages people to experience a city connected by water and art. (Figures 97 and 98)

Compelling elements:

- Flowing water creates a sense of continuity between otherwise disconnected public spaces.
- The municipal fountains comprise a highly successful "networked" experience that Portland advertises as a tourist and civic draw.

- Narratives of the city’s architectural history and of Pacific Northwest ecology are integrated with sites such as Halprin’s water spaces.
- Halprin’s monumental interactive fountains introduced a controversial, but healthy, element of risk and danger into water design for public spaces.

Portland’s municipal fountains link disparate public spaces across the city by the common theme of water. The experience of water in these spaces differs, providing variety and interest. The network of connected spaces offers a richer experience of the city than distinct, unconnected civic spaces would provide.



03.05 PRECEDENT VII Malmö, Sweden: Stormwater Management and Public Space

Western Harbor in Malmö, Sweden, was developed in concert with a housing exhibit called B001, and it provides a second compelling precedent for the creation of a network of interrelated public spaces. Stormwater management was a basic design element within the project's approach to ecological sustainability (City of Malmö 2008, 7). Stormwater was viewed as an asset and was integrated into public space rather than piped and hidden underground. Runnels, water features, and stormwater filtration ponds are integrated throughout the housing project. Water plays a role in the design of small interior courtyards, alongside buildings, and at the waterfront. Residents and visitors are continually aware of the presence of water. (Figures 100 and 101)

Compelling elements:

- This is large scale housing project that integrated public spaces throughout in the form of plazas and courtyards. Water became a central design element, linking disparate spaces.
- Creative treatment of water led to attractive design details that encourage people to explore the presence of water, thus heightening their awareness of it.
- Layered narratives are not integrated into the treatment of water in this project. Water is managed primarily as an aesthetic and functional element, so the depth of experience that would be possible with the artesian wells is missing here.

Malmö's interrelated public spaces use water functionally and aesthetically, thus achieving multiple goals with a single resource. This strategy also heightens public awareness of stormwater's ubiquitous presence and the need to treat it so that pollution doesn't become an issue. By making stormwater visible, the city helps improve understanding of why a stewardship approach is important.



Figure 100.
Public space and stormwater management .
(Image by author)



Figure 101. Public space and stormwater management .
(Image by author)

03.06 CONCLUSION TO MEDIUM-SCALE (EMBEDDED) PRECEDENT REVIEW

The precedents reviewed above demonstrate how storylines and networks can be embedded within a larger organizational framework, thus creating a deep understanding of the landscape and communities within them. In Olympia, the artesian wells present a scaffold that can link historical, ecological and cultural narratives, a network of interrelated public sites, and integrated interpretive narratives that improve understanding of the relationship between artesian water and Olympia, past and present.

04.00 SITE-SCALE PRECEDENTS

Within the proposed network of interconnected civic spaces, one site will be developed to explore how design can celebrate artesian water, history, culture, and ecology. At this most intimate scale, precedents for public space design will be examined. Examples of water-based designs are explored, in addition to a series of compelling urban public spaces that successfully integrate multiple activities and skillful design.



Figure 102. Artesian Well #46 (Image credit: J. Nailon, <http://www.olympiapowerand-light.com/2010/02/can-it-still-be-the-water-if-theres-no-more-water/>, accessed 5.3.2013)

04.01 HISTORIC USES OF WATER IN DESIGN

Water has a rich history in design. The inherent characteristics of the medium inspire creativity: “Of all the natural phenomena, the laws governing water are perhaps the easiest to understand . . . Water’s laws are immutable: at rest it will always be level; it will always flow downhill; and it will always seek the easiest way to do so” (Geddes-Brown 2008, 10). For free-flowing artesian water, an additional law can be added: the water flows, unaided, to the height above ground dictated by natural pressure. Water inspires many design forms: refreshment, metaphor, propaganda, spectacle or commemoration, entertainment or pleasure, urban oases, and infrastructure (Symmes 1998). The elaborate water features found in classical Renaissance palace gardens differ dramatically from the naturalistic lakes and ponds found in ancient Japanese and Chinese gardens. Energetic fountains were designed for the Villa d’Este in Tivoli, Italy, while designers pursued elegant stillness in the Tenryu-ji water garden of Kyoto, Japan. Historic Persian gardens once channelized water to create secluded spaces of simplicity, elegance, and ease. Subsurface aqueducts (qanats) carried the water, storing it for later use or moving it via surface rills to irrigate precious gardens and provide cool, restorative spaces (Geddes-Brown 2008, 11). Today runnels, cisterns, fountains, and reflecting pools continue to play a role in contemporary design, as the following precedents demonstrate. Considering water as a participatory element for design is a particular focus. Examining several contemporary water gardens reveals a broad range of design strategies involving water. This review also reveals the elements necessary for the making of these sites, thus suggesting opportunities and limitations.

04.02 PRECEDENT VIII

Director Park | OLIN and Zimmer Gunsul Frasca | 2009

Director Park is a public plaza in Portland, Oregon, that integrates water with a variety of other spaces over the course of an urban block. The water feature is a central element of the space, despite its off-center location. It encourages playful interaction with a few sculptural jet elements and through subtle grade changes that direct water into a large, shallow wading pool. An arcing bench traps and drains the water while also providing seating and a focal point. The Plaza is hardscaped to provide a flexible, open space for events and festival activities. Two additional sub-spaces are found toward the plaza edges; one is a small tree-shaded bench area with chess-board paving; the other is a raised seating area or stage with a glass roof. (Figures 103-105) There are a number of compelling elements in this project:

- The water feature is the central design move in the plaza, yet it does not dominate the site because of its simple form and its asymmetrical location.
- Water encourages interaction yet remains flexible; it can be turned off as needed, creating additional space.
- The bench adjacent to the fountain provides a comfortable place to gather and supervise children as they play in the water. It also encourages adults to interact with the water without feeling as if they are intruding in a child's play space.
- The covered stage can be used for performances as well as for seating and informal gatherings.
- Subtle variations in elevation deal with onsite topographic change but also create distinct spaces through the use of steps and terraces.
- Much of the stormwater generated on the hard surfaces of the site is infiltrated or filtered in a series of swales, then stored in a cistern for irrigation (Jost 2013, 120).

Director Park uses water effectively but subtly. Water is a crucial part of the site but it is not the only experience of the site. This approach allows the designers broad flexibility with the space while still offering the seductive and restorative experience of water. Furthermore, the design of the water feature encourages interaction for all ages of plaza users.



Figure 103. "Director Park, chess."
(Image: Another Believer, 2011, http://commons.wikimedia.org/wiki/File:Director_Park_chess.jpg, accessed 5.9.13)

Figure 105. "Simon and Helen Director Park - Portland, Oregon," 2010, M.O. Stevens.
(Image: http://commons.wikimedia.org/wiki/File:Simon_and_Helen_Director_Park_above_-_Portland,_Oregon.jpg, 5.9.13)

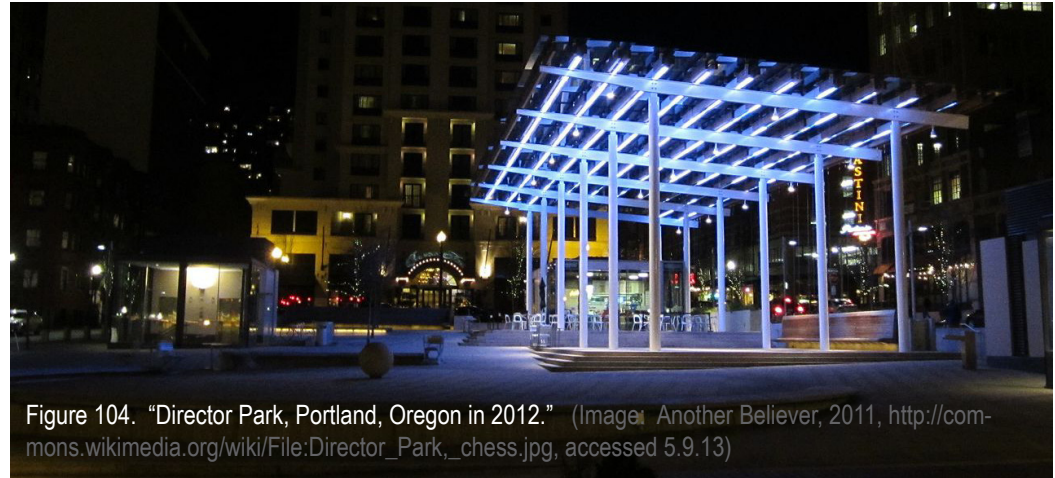


Figure 104. "Director Park, Portland, Oregon in 2012." (Image: Another Believer, 2011, http://commons.wikimedia.org/wiki/File:Director_Park_chess.jpg, accessed 5.9.13)



04.03 PRECEDENT IX

Gerald D. Hines Waterwall Park and Fort Worth Water Gardens | Philip Johnson and John Burgee | 1985 & 1974

Two monumental projects designed by architects Philip Johnson and John Burgee use water to create immersive, dramatic visual and physical experiences. The Gerald D. Hines Waterwall Park in Houston, Texas, is part of the former Transco Towers complex. It includes a 64-foot tall arcing wall that supports a massive, flowing sheet of water. (Figure 106) Visitors walk through a set of arches into an entirely immersive space, where they stand surrounded by the wall of water that cascades down around them. The design does not invite interaction through direct contact, but the environment is dramatic and aesthetically powerful. Critics noted the lack of interaction as a weakness of this project: “although the Transco Fountain appears to invite invitation, the invitation is an illusion, for the steps up the sides of the fountain lead not into a pool but nowhere . . . Looking around, one suddenly feels cold, like an intruder in an eerie Swiftian world” (Symmes 1998, 176).

- The drama of the design emphasizes the power of water as a design element while it cascades down and around the central platform.
- The design focuses attention on water as a surface flowing over the expansive wall rather than shooting up from a central source.
- The project involves a large volume of water, whereas none of the artesian wells flow at a rate that would produce this scale of drama.
- The site offers a single experience: that of immersion. Here the experience of water is a singular event rather than a constantly engaging element of the overall site. In Houston there is a disappointing disconnect between the water feature and its larger context.

The Fort Worth Water Gardens, created in 1974, offer another spectacular theatrical landscape, but one with opportunities for direct water play similar to that found in the design of Lawrence Halprin. The project involves a dramatic crater of layered planes that lead down into a central pool at the base. (Figure 107) Water cascades over this constructed geology while a series of steps take visitors down to the heart of the water feature. The site is all-encompassing as people scale the stairs or sit on the platforms at its base. Like the Waterwall, the experience of this design is one of immersion. Five “water zones” in pools offer different experiences based on the water systems, yet together these spaces create “a park adrift, a water world in and of itself, ‘at once useless and absolutely splendid” (173).

- The design offers a range of water experiences for visitors within an overall immersion in the site. The sound, feel, velocity, quantity, and

spray of the water all contribute to this experience.

- The scale of the site and the volume of water involved enable a design that evokes the grandeur of waterfalls and canyons within the heart of a city.

Both the Waterwall and the Water Gardens are epic in scale and lavish in their use of water as a design element. The opportunity to use such large volumes of water encouraged the architects to design for immersion - in a manner similar to the work of Lawrence Halprin. However, Halprin's water features integrate more holistically with the rest of their sites, while these projects separate the experience of water from their sites to create dramatic, all-encompassing events.



Figure 106. "Transco Fountain, Houston, TX," 2004, F. Cerkan
(Image: http://bayareaphotoclub.org/gallery/v/golds/fredcerkan/fred23_2.jpg.html, accessed 5.9.13)



Figure 107. Water Architecture in Fort Worth Gardens Texas.
(Image: <http://www.thezoom.com/2012/10/7185/>, accessed 5/2/2013)

04.04 PRECEDENT X

Diana, Princess of Wales Memorial Fountain | Kathryn Gustafson | 2004

Kathryn Gustafson's design for the Princess Diana Memorial is elegant in its simplicity and grace. The memorial floats through the landscape in a distended "swoosh" of continually moving water: "The memorial stands out as a light-colored ring in the landscape, which contrasts with the surrounding meadow area and planting, and has an energy which radiates outwards while at the same time drawing people near" (Gustafson-Porter.com 2013). The water flows over a series of textural surfaces at different elevations, providing variety and visual interest. Each section of the memorial ring is intended to reflect a particular period in the life of the Princess of Wales (Gustafson-Porter.com 2013). (Figures 108-110)

- The scale of interaction in this design allows people to sit by, touch, or even walk in the water feature in a meditative manner, making the experience very intimate.
- The varied surfaces under the sheet of water create distinct visual and textural experiences, while the limited material palette retains visual cohesion.
- The minimalism of the design offers an open-ended experience, leaving room for both reflection and celebration.
- The water feature integrates into the surrounding landscape rather than detaches from it.

The Diana Memorial integrates water into the landscape to provide an repository for memory, grief, and celebration. Experiential variety within the water feature allows freedom of choice. Furthermore, the simple opportunity to touch the water offers an important chance for participation and emotional release at an intimate scale.



Figure 108 (top left). Diana Princess of Wales Memorial Fountain
(Image: <http://yesol-park.blogspot.com/2011/04/emotional-design.html> I, accessed 6.9.13)

Figure 109 (left). Fountain detail
(Image: Pam Fray, wikimedia.org/wiki/File:Part_of_the_Princess_Diana_Memorial_Fountain,_Hyde_Park_-_geograph.org.uk_-_746094.jpg, accessed 5.1.13)

Figure 110 (above). Fountain detail
(Image: C.G.P Fray, http://commons.wikimedia.org/wiki/File:Diana,_Princess_of_Wales_Memorial_Fountain.JPG, accessed 5.1.13)

04.05 PRECEDENT XI

Designing with Artesian Water: the Lower Hutt Artesian Fountains, New Zealand

Artesian water is the central focus of the project, and free-flowing wells have a special history because of their unique characteristics. The Carthusian monks of France are believed to have dug the first artesian well in 1126 (Cech 2003, 118). Much of their allure rests in the fact that no pumps are needed to pull the water from the aquifer. Despite this, most design precedents for artesian well sites illustrate that access for agricultural use or drinking water collection are the dominating parameters. (Figures 111-117)



Figure 111. "Blâme puits de Bontemps," 2009, Père Igor
(Image: <http://commons.wikimedia.org>, accessed 5.14.13)



Figure 112. "Le Puits Artesien (The Artesian Wells)"
(Image: <http://www.bassindarcachon.com>, accessed 5.7.2013)



Figure 113. Free-flowing artesian well in the Nisqually tidal flats (former agricultural field). (Image by author)



Figures 114 and 115 (top and center, left). "Lynnwood Artesian Well," 2012, K. Zeitler, (Image: <http://2.bp.blogspot.com>, accessed 5.13.13)

Figure 116 (left). "Town Run Trail Park (at Flowing Well Park in Carmel, IN)," B. Pate (Image: <http://alltrails.com/tracks/carmel-flowing-well-park>, accessed 5.1.13)

Figure 117 (above). Le puits artésien de la Butte aux Cailles, place Paul Verlaine,"2013. (Image: <http://rsparisis95.e-monsite.com/blog/3/>, accessed 3.2.13)

In Lower Hutt City, part of Wellington, New Zealand, two artesian well sites have been developed as publicly accessible sites. The Te Puna Wai Ora (“the spring of life”) sculpture was designed by New Zealand artist Louise Purvis and “symbolizes a water oasis — a place of rest, refreshment and exploration. Pedestrian crossings meander into the site like trickling streams, pavers give a sense of movement, while the seemingly precarious vertical stack of water vessels act like a beacon to the oasis. A bird’s eye view of Te Puna Wai Ora resembles tidal patterns, exposing tributaries interwoven with sanctuaries of green flora” (City of Lower Hutt 2003). The sculpture also provides access to artesian water as a drinking fountain.

An impressive design can also be found for the artesian well fountain in Dowse Square, located in front of the Dowse Art Museum. Designed by landscape architect Megan Wraight from Athfield Architects and Wraight + Associates, the square integrates artesian water access spigots with a public plaza that also includes art, sandpits, trees, seating, and a series of pools using circulating artesian water (New Zealand Herald 2013). A giant robot sculpture reclines in the middle of one pool fed with artesian water. Designed by New Zealand artist Ronnie van Hout, Fallen Robot is “a public sculpture that lies in a shallow pool beneath an artesian water tap” (Hutt City Council 2013). Regarding the artesian water, the museum web page notes that “Visitors will be able to collect artesian water from the tap near the artwork. The water, drawn from the underground aquifer to the surface, will also serve as a drinking water supply in civil defense emergencies” (Hutt City Council 2013). The Dowse Square design integrates water access into a public plaza with room for play: sand pits and a climbable robot sculpture encourage exploration.

- Dowse Square recirculates artesian water through several pools on the site, treating it as an amenity and important design element but not the focal point of the project.
- The design at the Dowse site isn’t primarily about artesian water, although water remains accessible. No obvious interpretive layers are incorporated into that project. The Te Puna Wai Ora project includes traditional interpretive signage to connect people to the ecological and historic narratives of the site.

In both sites, artesian water is a design element that helps to shape the site, but to differing degrees. The design of Dowse Square makes artesian water available to visitors, but the plaza appears to prioritize public space as a whole over the narrative of artesian water. Importantly, the

design integrates post-use filtration of the water in a visible manner (via the linked ponds), heightening awareness of the need to steward a precious resource. The sculpture at Te Puna Wai Ora focuses more directly on artesian water narratives in addition to access. Finally, the designers of Dowse Square recognized the value of artesian water as a water resource for emergencies – something Olympia can do as well.

Urban public space design that emphasizes play, innovation, and art is also important for the artesian well project. The following projects provide examples of how disparate goals can be integrated into a successful public site.



Figure 118

Figures 118-121 (clockwise, starting above). Photos of Dowse Square (118-120); Photo of Te Puna Wai Ora fountain (121). (Image: <http://wildbaynz.blogspot.com/2013/02/out-there-and-behind-lower-hutts.html>, accessed 4.2.13)



Figure 121



Figure 120



Figure 119

04.06 PRECEDENT XII

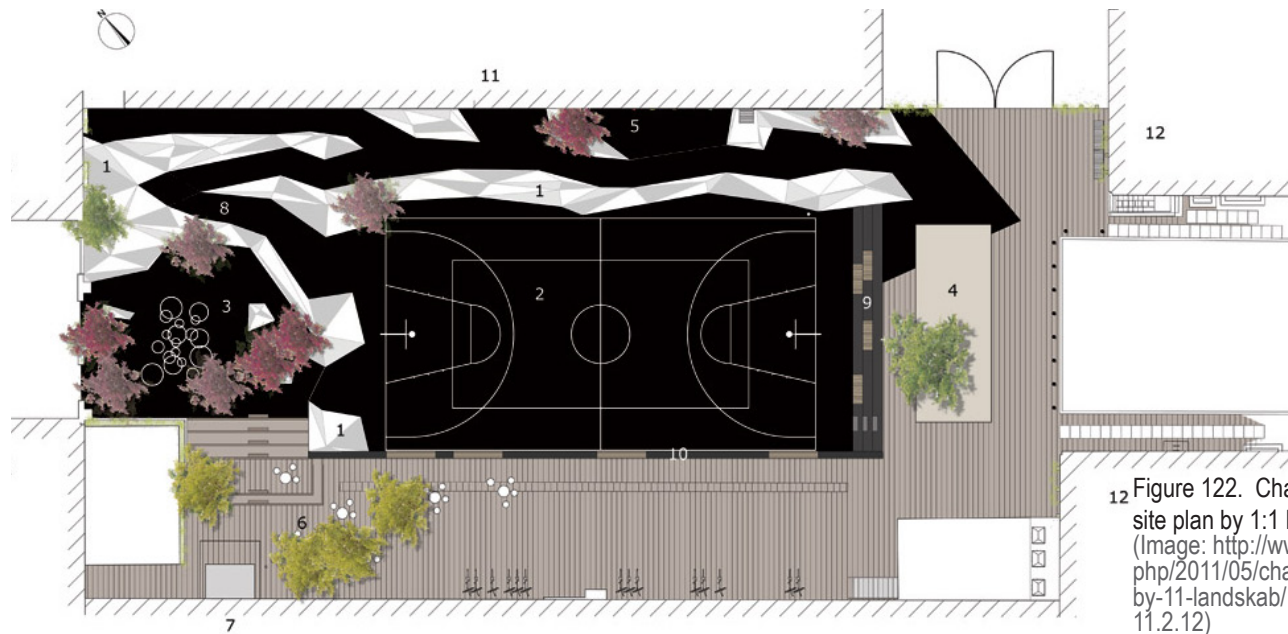
Charlotte Ammundsens Plads, Copenhagen, Denmark | 1:1 Landskab | 2008

Charlotte Ammundsens Plads is an urban park in the heart of Copenhagen, Denmark. The plaza is surrounded by a city street, power substation, multi-story housing, and a cultural center that opens onto one side of the space (Landezine.com 2013). The design masterfully integrates elements of plaza and playground into a single site, uniting them with a sculptural form that weaves throughout. The project designers describe their work as fundamentally democratic and fundamentally artistic:

A lot of the meeting places in the city are reserved [for] certain types of people. Places where people go to meet people like themselves. The aim was to make a democratic meeting place, a place where people of all ages and social classes could come and meet people they wouldn't meet elsewhere. To attract all kind[s] of people the aim was to implement different activities as basketball, skating, pétanque, wall climbing etc. but also to give space for unforeseeable/planned activities. Not least the aim was to make a square that was also attractive when it was empty and a square that stands for itself. A lot of 'activity' spaces look very abandoned when not used, here the aim was to create something that was beautiful even on a deserted winters day. (Landezine.com 2011)

This site provides an extremely compelling precedent because of its effective integration of active and passive use, democratic ideals, and classical and unconventional form. Site visits confirmed that it appeals to visitors of many ages. Furthermore, project elements are continually reinterpreted because of the flexibility of the forms. The white concrete elements function alternately as climbing structures for small children, benches for adults, and skating platforms for teens. (Figures 122-126)

- Designed elements are multi-functional. The white geometric forms evoke a mountain landscape or Japanese stone garden (www.Landezine.com), yet they function as seats, skateboarding surfaces, climbing obstacles, backrests. . .
- The artistic quality and drama of the site maintains visual interest and drama - even when empty.
- The site merges classical garden design with the aesthetics and activities of contemporary street culture, creating a place that embraces diverse users that might not normally interact. Traditional garden elements (cherry trees, set stone pavers) mingle with the "raw street-culture"



12 Figure 122. Charlotte Amundsens Plads site plan by 1:1 Landskab. (Image: <http://www.landezine.com/index.php/2011/05/charlotte-amundsens-plads-by-11-landskab/14-1til1-landskab/>, accessed 11.2.12)



Figure 123. Charlotte Amundsens Plads. (Image: <http://www.landezine.com/index.php/2011/05/charlotte-amundsens-plads-by-11-landskab/14-1til1-landskab/>, accessed 11.2.12)

of murals/graffiti and activities like skateboarding and basketball. This mixture welcomes users that otherwise might be in conflict and users of all ages.

- The design elegantly integrates bold design and strong contrasts in color and form.
- The project divides the space into a series of activity-areas: a “classical Copenhagen square” where people can sit and chat while eating food from a nearby cafe, a basketball court for active youth play, a playground for smaller children, and a “white rocky landscape” that integrates all elements together and itself acts as a surface for play. Additionally, several walls are covered in constantly evolving street art paintings and climbing handholds.

Charlotte Ammundsens Plads is a multifunctional space that incorporates artful, unconventional forms with traditional forms. It emphasizes democratic space and achieves this by including spaces that appeal to a range of ages and interests. The flexibility of many of the elements in the plaza encourages creative and imaginative use. Both play and risk-assessment are integral in the plaza because it encourages active recreation, and this is an important model for public space design.



Figure 124. Charlotte Ammundsens Plads. (Image by author)

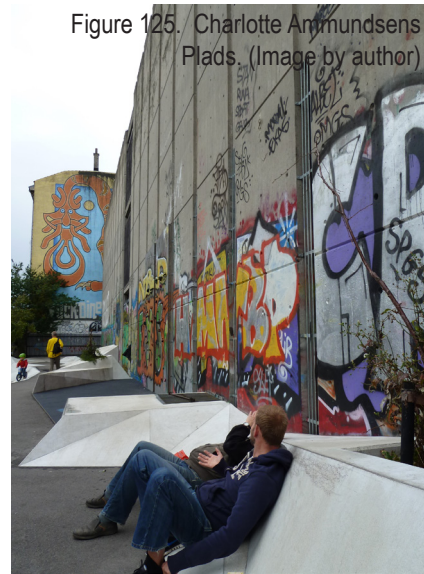


Figure 125. Charlotte Ammundsens Plads. (Image by author)



Figure 126. Charlotte Ammundsens Plads.
(Image: <http://www.landezine.com/index.php/2011/05/charlotte-ammundsens-plads-by-11-landskab/14-1til1-landskab/>, accessed 11.2.12)

04.07 PRECEDENT XIII

The Red and Black Squares of Superkilen | Nørrebro District, Copenhagen, Denmark | Topotek1 Landscape Architecture, Superflex (artist group), BIG (Bjarke Ingels Group) | 2012

Superkilen is an urban development project that flows for 2,460 ft through former “residual space,” crossing the ethnically diverse Nørrebro District of Copenhagen (AIA.org 2013). The project straddles a bicycle trail and links together three major public spaces, each of which opens out from the cycle track. In an inclusive design process, adjacent community members originating from fifty different countries selected elements for the sites, which consequently reflect and embrace this eclectic diversity:

The different surfaces and colors of Superkilen’s three zones are integrated to form new, dynamic surroundings for the everyday objects—benches, lampposts, trash cans, and plants—exhibited throughout the park. These objects were all selected by area residents, who represent more than 50 nationalities. A variety of trees and other vegetation, arranged as small islands of diverse species, match the origin of the surrounding everyday objects. (AIA.org 2013)

Two of the three public spaces are examined as precedents. “Red Square” embodies a radical combination of bold color, landform undulation, and urban vernacular street graphics to create a high-energy recreational and social space. The shock of the red, orange and fuchsia color that saturates the ground is transformative within a context of predominantly gray stone and brick neighborhood buildings and streets. This jolt of color and energy is simple but highly effective in creating a remarkable and identity-generating civic space. The designers’ embrace of a purely artificial aesthetic – almost a comic-book aesthetic - makes for an incredibly unique and memorable space that begs exploration.

The “Black Market” could, at first glance, be considered a classic square, with a traditional central fountain around which people meet. However, the rest of the site is unusual: a single large mound surfaces at one end of the plaza while allées of palm trees, tables, and benches soften the mostly horizontal hardscape. Dramatic white lines pinch and flare across the black asphalt surface. This simple technique of painting the ground surface lends a drama and again, strong identity to the space. It is clearly playful, clearly pedestrian, and clearly bold in execution.

Compelling Design Elements

- Both sites use simple moves to generate dramatic results: boldly painted concrete and asphalt dramatically alter the spaces and give them a strong identifying aesthetic.
- Both sites use whimsy and play as strong drivers in the design. Each space is open to interpretation and accommodates sitting, watching, running, skating, cycling and myriad other activities without compromising the enjoyment of less active individuals.
- The sites embrace a street art aesthetic. They use sculptural graphics, bold lines, murals, and street art posters to move design from horizontal to vertical planes.
- Each site combines classical plaza elements – trees, seating, and flexible open space, with more radical elements of unconventional color, landform, playground structures, and a bold urban vernacular visual language. This creates a dynamic balance that embraces a broader range of ages and users than either extreme would, in isolation.

The public spaces of Superkilen are bold, inclusive, and playful. They are designed with the expectation of use and incorporate simple, inexpensive urban materials like asphalt and street paint. Nonetheless the spaces appear human and inviting; the tough, pragmatic materials and flexibility of the features encourage playful use. Because of their bold use of color and form, these plazas are meant to be looked at; because of their use of playful, inviting components, they are meant to be inhabited.

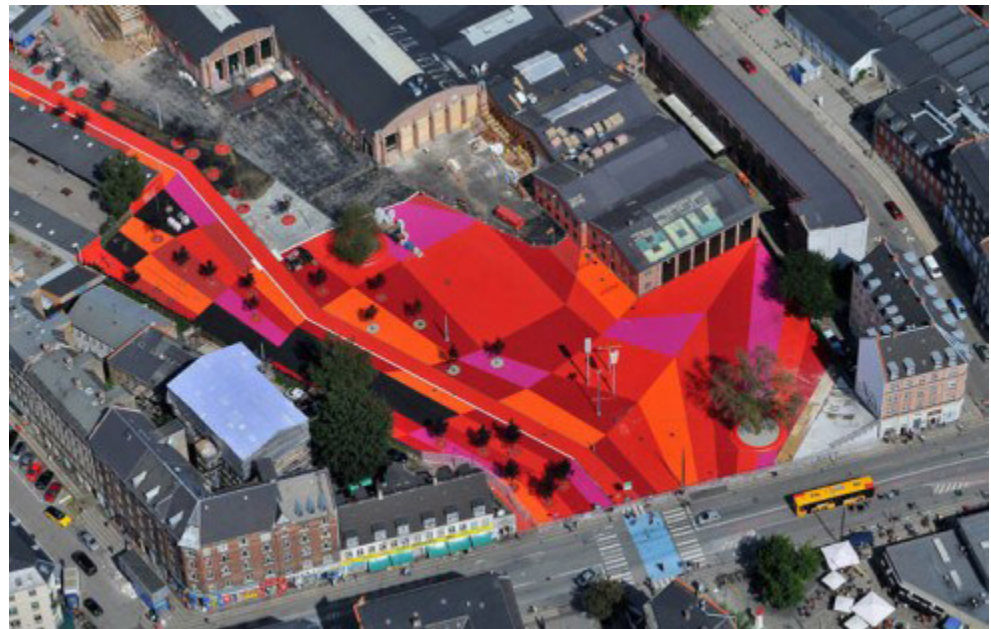


Figure 127. Superkilen.
(Image: <http://thewonderlust.org>,
3.2.12)



Figure 128



Figure 129



Figure 132



Figure 131



Figure 130

Figures 128, 131, 132. Images of Superkilen: Black Market.
 (Images: (128) Iwan Baan, <http://www.archdaily.com/319473/superkilen-masterplan-designed-by-big-topotek1-superflex-honored-by-aia/>, (131, 132) accessed 5.2.13 and <http://commons.wikimedia.org/wiki/File:Superkilen3.JPG> accessed 5.2.13)

Figures 129, 130. Images of Superkilen: Red Square
 (Images: (129) Iwan Baan, <http://www.archdaily.com/319473/superkilen-masterplan-designed-by-big-topotek1-superflex-honored-by-aia/>, accessed 5.1.13 (130). http://commons.wikimedia.org/wiki/File:Superkilen_-_red_section.JPG, 5.1.13)

The historic Carlsberg Brewery in Copenhagen is the focus of an ongoing creative redevelopment project that hopes to convert historic warehouses and brewery infrastructure into a new complex of commercial, residential and civic spaces: “as a whole this proposal expresses a multitude of ideas and a sensitive adaptation combined with a simplicity in the strategies proposed for the area, which makes it an outstanding new, artistic interpretation of classical development of buildings, urban spaces and urban areas” (Entasis.dk 2013). Entasis, a Danish landscape architecture and architecture firm, won a 2007 open international competition to develop a master plan for the former brewery complex. Entasis describes the project: “this entry is not a proposal for the creation of a historical city and museumification of Carlsberg but a development-oriented, robust proposal for a modern city featuring contrast between high and low, existing and new elements, and labyrinthine and axial experiences of the site” (Entasis.dk 2013).

The project is being developed in phases, with an initial emphasis on activating the public spaces, then attracting investors who will address commercial and residential development opportunities. Entasis developed the scaffold for the public space interventions and various other designers implemented projects within this framework. The nature of the public space activations is the precedent focus here.

Brewery Interventions: Focus on Life of the City, not Form

“Under the Pentroof” (Ropes Installation) |UiWE, Keinicke & Overgaard Architecture, Primus Architecture & Streetmovement | 2010

UiWE cultural design group was responsible for several inspired public space interventions that are intended to serve as temporary redevelopment catalysts. One site reuses a former fueling station as the scaffold for more than three thousand dangling ropes, which serve as a elastic, interactive public artwork of sorts. A Danish blogger interviewed Christian Pagh from UiWE. Pagh, who described development of the spatial intervention as:



Figure 133. Carlsberg City redevelopment plan.
(Image: Entasis, <http://entasis.dk/1122>, accessed 3.2.2013)



Figure 134. Ropes Installation
(Image: <http://overgadenovenvandet.wordpress.com/2011/11/10/meet-you-at-the-ropes/>, accessed 5.2.2013)

. . . developing an area to both generate identity and activity. The pavilion roof was an existing structure which was always to be combined in the project but initial program ideas were for a gallery or an outdoor theater for watching movies. The issue with a lot of the program ideas was that it involved a lot of curation by either the artistic businesses using some of the buildings or an outside group so the solution became more of [an] installation that did not have a specific program but rather invited people to use it as they saw fit. The field of ropes is cut at different lengths so groups can gather in the center. (overgadenovenvandet.wordpress.com 2012)

The project is physically and aesthetically irresistible. As a form, the linear pattern of hanging ropes contrasts with the surrounding warehouses, organic and shifting like above-ground seaweed in the breeze. When in use, the ropes transform into playful jellyfish tentacles through which people climb, swing, build and explore. The lack of script for the project's use – and the lack of barriers – invites people to interact creatively with the space, climbing, photographing, and building memories. The power and simplicity of this project are identity-makers. As Pagh affirms, “Everyone knows the spot as “the ropes” and it has been a place that has been sought out so it very much has created an identity . . . everybody is between the ropes and you are more likely to talk to people because you are, in a funny way, all in this together” (overgadenovenvandet.wordpress.com 2012). Compelling aspects:

- The phased approach to redeveloping Carlsberg “City” offers a nice model for developing the multiple scales of Olympia’s artesian well story. Markings, trails, and parks can happen over time, but the vision and framework must be established early.
- The ropes and outdoor gym sites embody playfulness and whimsy with an unthreatening, inviting manner.
- Commonplace materials are repurposed in an extraordinary way.
- Flexibility and interpretive freedom result from the lack of a scripted site program.
- The form is powerful, dramatic and memorable, creating both an aesthetic experience and strong site identity.

It is important not to neglect additional UiWE interventions at Carlsberg. Temporary public spaces also function as playgrounds that invite adult and youth forms of play alike. Throughout the Carlsberg Brewery redevelopment project, the use of common materials in unconventional ways makes the interventions surprising, catalytic, active and fun. Metal poles become climbing structures, pull-up bars, and artful lines crisscrossing the sky. Stacks of lumber become seats, structures for scrambling, and challenging objects for squats or exercise routines. Asphalt-covered mounds ask visitors to run up, roll off, and bike over them. The site is at once an outdoor gym, a whimsical playground, an art installation, and an engaging public space.

Figure 135. Carlsberg ropes installation.
(Image: <http://overgadenoven Vandet.wordpress.com/2011/11/10/meet-you-at-the-ropes/>, accessed 5.2.2013)



Figure 136. Ropes Installation
(Image: <http://overgadenoven Vandet.wordpress.com/2011/11/10/meet-you-at-the-ropes/>, accessed 5.2.2013)



Figure 137. Ropes Installation
(Image by author)



Figure 138. Spatial catalyst at Carlsberg Brewery, 2011 (Image: by author)

04.09 CONCLUSION TO THE PRECEDENT REVIEW

The precedents reviewed in this section contribute to consideration of a design framework for Olympia. Each contains several compelling design characteristics. Among them: layered narratives; physical and intellectual interactions; aesthetics linked to multi-functional space; work at multiple scales, nested systems within larger systems. These examples suggest that design can question the character of public space, challenging traditional concepts and adopting a flexible formal language that allows multiple interpretations and functions. Ideas of democratic space are also embodied in the work of public artists and Danish designers, and this is significant for an emerging design framework. Overly-defined civic spaces may dilute the richness of the public sphere when every space has a clearly scripted use and there is no room for alternative interpretations. Instead, public space can be provocative, revealing civic strengths and civic weaknesses and contributing to a healthier, more aware, more engaged community life. At the site scale, design should be inclusive and also address timeless needs like seating, shelter, and gathering space. Landscape architect Laurie Olin notes that “People worry about the homeless, but if you make the homeless uncomfortable, everyone else will be too” (Jost 2013). This review of precedents also revealed another critical quality for public space design: enabling opportunities for play and risk. Halprin’s monumental fountains attempted to “interpret nature’s mode of operations, not her results,” and this included an element of risk: “if we are to understand the processes and not merely mimic the forms, we must include the uncertainty that lies at the base of the human experience of nature” (Symmes 1998, 173). Likewise, the Carlsberg Brewery redevelopment included catalytic projects allowing unsupervised exercise, play, and discovery. Without the opportunity to assess risk, people can’t develop the skill to do so. Public space design should incorporate risk and creativity as well as beauty and respite.

To address artesian water’s potential for shaping the public sphere such qualities must become the foundation of a design response. Aesthetically compelling design can also engage physical movement, play, whimsy, history, storytelling, and ecological health. It can reject a bland and indistinct urban experience that refuses to acknowledge its physical, ecological, or social foundations. Interventions at the city-wide scale, at the scale of the embedded network, and at the site scale will incorporate these lessons. Design will magnify the interlaced concepts of artesian water, social narrative, ecology, and history to offer a new conception of Olympia. In this endeavor, the words of architectural historian John Kalliski are an eloquent reminder of the nature of contemporary public space, which makes this strategy possible:

The present city must be defined as a place of continuous creation. Its stories evade the manifold rationality of strategic urbanism, establishing traditions and histories that are both visible and waiting to be discovered. Reviled and desired, urban spontaneity challenges the logics of urban renewal, urban planning, urban redevelopment, urban design, and all of the other twentieth-century urbanisms that ignore existing things and place because of their imperfections. These stories and spontaneities, however flawed, constitute the everyday urban world. (Kaliski 1999, 105)

CHAPTER 5

CONCEPTUAL FRAMEWORK: A LITERATURE REVIEW

CHAPTER 5 **CONCEPTUAL FRAMEWORK: A LITERATURE REVIEW**

01 TOWARDS A DESIGN FRAMEWORK

It is useful to situate the design proposal for this thesis within a broader conceptual context in order to draw on and respond to the ideas of others. Following is a consideration of theory and contemporary thought that contribute to this project's underlying principles and ultimate realization. This section begins with an exploration of using multiple scales and systems-thinking to reveal a natural phenomenon such as artesian water and to foster community cohesion and community resilience. Consideration of ecological literacy and its relationship to stewardship follows, to help explore how artesian water can enhance environmental consciousness and encourage responsibility. The third section addresses the use of design as a tool of interpretation and a form of beauty to further inspire connections and awareness, as well as create distinctive places. This chapter concludes by exploring public space design and issues of inclusion and place-making. The final design response integrates the ideas explored in this chapter to achieve the following overarching goals:

Thesis Goals

- To explore how design might increase awareness, understanding, and stewardship of Olympia's artesian water.
- To honor artesian water by acknowledging it as offering the opportunity to enhance people's understanding of ecological systems, as a potential social catalyst, and as a resource shared across species, geography, and time.
- To demonstrate that artesian water can be used to enhance civic life and identity in downtown Olympia by proposing: unique, surprising moments; unconventional, inclusive spaces; and a new public space system for the downtown core. Olympia remains the State Capitol but it is also, fundamentally, the "city of artesian wells."
- To explore the possibilities of designing concurrently at multiple scales: an overarching system, embedded networks, and a specific site.

02 CONCEPTUAL CONTEXTS: A BRIEF LITERATURE REVIEW

02.01 Multiple Scales, Systems-thinking, and Resilience

Olympia's artesian wells are an overlooked and underappreciated part of the city's history, ecology and civic life. This thesis proposes to address this oversight through design, and to transform Olympia's public space to include the artesian wells. To realize the full potential of Olympia's artesian wells it is necessary to think and design at multiple levels from the full downtown to the individual site. The design of a single site that celebrates artesian water would not sufficiently reflect the presence of the artesian aquifer beneath the entire city or the cultural history of the nearly 100 free-flowing wells that were an essential part of the city's development. Only by proposing interventions at several scales can design fully address the past and present state of artesian water and its potential as a framework for community-building and stewardship. Shifting scales is also critical for addressing the specifics of any site in relation to its context, and transferring that contextual understanding into design. No individual element is as nuanced or as coherent in isolation; extracting one part without addressing the larger whole results in conceptual, creative, and functional limitations as well as missed opportunities.

Systems-Thinking

"Systems-thinking" is a strategy that addresses both shifting scale and interrelationships between elements of a complex whole. Physicist and founding director of the Center for Ecological Literacy, Fritjof Capra was an early advocate of systems-thinking, which studies and understands the world through its networks and interconnections rather than isolated parts:

The first aspect of systems thinking concerns the relationship between the part and the whole. In the mechanistic, classical scientific paradigm it was believed that in any complex system the dynamics of the whole could be understood from the properties of the parts. Once you knew the parts, i.e. their fundamental properties and the mechanisms through which they interacted, you could derive, at least in principle, the dynamics of the whole . . . We believe that the properties of the parts can only be understood through the dynamics of the whole. The whole

is primary, and once you understand the dynamics of the whole, you can then derive, at least in principle, the properties and interactions of the parts.” (Capra 1985, 475-476)

Considering this perspective within a design context, each intervention can respond to the complexity of its context and interconnections with other systems. Biophysicist and scholar Donella Meadows addresses systems-thinking within the context of social behavior and organizational structure. In its simplest form she defines systems-thinking as “an interconnected set of elements that is coherently organized in a way that achieves something . . . a system must consist of three kinds of things: elements, interconnections, and a function or purpose” (2008, 11). Meadows casts systems-thinking as a vehicle for problem-solving within a complex, evolving world of interdependent components and feedback loops. Approaching design within this framework is more open-ended and adaptable than its alternative, which might focus strictly on the design of a single site. Focusing on parts without reference to the whole generally proves problematic, particularly when it comes to the question of public space design. Such an approach (focused on parts rather than the whole) leads to a common scenario in today’s built environment: disconnected, poorly selected sites; lack of cohesion between site and context; lack of relationship to underlying natural systems or community needs. Danish architect Jan Gehl describes the results of public space design driven by a singular perspective: “in almost all cases it has proved impossible to meet the goal of ensuring good conditions for city life if the majority of planning decisions are made on the top-level scale, and if work with city life is reduced to treating only those areas left over in the larger picture” (Gehl 2010, 196). In contrast, systems-thinking embodies an approach that is multifaceted and can result in responsive design. Design using a systems framework can be surprising, adaptable, and exceptionally elegant. Architect Ali Rahim articulates a similar notion (within the realm of design) very succinctly: “Elegance mediates and enables complexity . . . Elegance is achieved when, rather than allowing external constraints to alter and compromise the internal organization, the internal organization is manipulated and transformed to adapt to external constraints,” (Rahim 2007, 7).

Design for Resilience

Linked to the use of shifting scales and a systems-based perspective is the possibility of designing for resilience, which, in the context of this thesis, means enabling social and ecological capacity to adjust to change. Understanding cities as complex, adaptive systems, environmental

science scholar Maywa Montenegro argues that urban design should foster resilience “. . . when risk and uncertainty are inevitable, providing the capacity to absorb change – building for resilience-is the only rational response” (2010, 77). Landscape architect Randy Hester also argues that adaptable urban design can nurture resilience:

This ability to endure is based on, among other things, having an urban form that continually provides what a community needs, even in times of temporary crises. Resilient urbanity has the internal ability to persist - to recover easily without significant loss from illness, misfortune, natural or social disaster, or other dramatic disturbance. And it can readily absorb change. A resilient city is able to retain the essence of its form even after it has been deformed. (2006, 138-9)

Resilience as a basis for design is critical both for the constructed environment and also for its inhabitants. Hester echoes this notion: “Resilient form maintains itself efficiently and seamlessly with both the landscape and the cultural networks of which it is a part” (2008, 139). In fact, it is through people’s understanding of their relationship to the world that the pursuit of resilience will ultimately be most effective. This form of resilience requires design that promotes ecological understanding, concern, and affection.

For just this reason Fritjof Capra situates systems-thinking in discussions about sustainability and ecological understanding: “The great challenge of our time is to build and nurture sustainable communities-social, cultural, and physical environments in which we can satisfy our needs and aspirations without diminishing the chances of future generations” (1993, 1). Central to Capra’s perspective is the recognition that societies must “first learn to live in ways that do not interfere with nature’s inherent ability to sustain life. The first step . . . must be to become “ecologically literate,” i.e., to understand the principles of organization that ecosystems have developed to sustain the web of life . . . to learn to think systematically – in terms of connectedness, context, and processes” (1).

In addressing Olympia and the artesian wells, a systems-based perspective explicitly acknowledges the interdependent ecologic, economic, and social systems within which the artesian wells are situated and within which design takes place. As a natural resource in need of stewardship, artesian water should be understood and expressed through design using a systems-thinking framework that creates a basis for [resilience by fostering understanding. As cultural and historical phenomena, artesian wells should be approached through systems-thinking that reveals the ever-evolving layers of meaning and a narrative that may be constructed to capture this meaning and convey the presence of this resource. It

is through multi-scalar, interrelated design interventions that the city's relationship to artesian water can be made visible and can become part of Olympia's effort to achieve sustainability.

02.02 Ecological Literacy and Stewardship

What is the best way to learn a frog? . . . Not by reading. Not by seeing a picture or even by holding one in your hand. To learn a frog in a full and lasting manner, you must find one where it lives in nature, watch it, listen to it, if it is calling. Study its habitat . . . take note of where it has chosen to sit, stalk it, capture it, put it in a jar and keep it a little while. Study it there, release it next to the edge of water where you found it, watch it kick away and submerge out of sight. The concept of frog will be with you forever if you follow this kind of education. You can pick up additional information from science and literature, and myth, and all those things you have at school, but you will be wiser for being rooted in the full reality of frog. You will care about frog, too, like nobody else.
(Wilson 2010, 124)

The words above arise in a fictional conversation between a scientist and the young student, yet they embody a fundamental design impetus: the cultivation of ecological literacy and a stewardship ethic. Design can inspire connections between people and the natural systems of which they are a part, nurturing inquiry, curiosity, understanding, and through this, caring and resilience. While design may not be able to achieve the richness of understanding that Wilson suggests in the above quote, it can contribute to understanding and provoke awareness and curiosity, leading to heightened connections with ecological systems.

Reading the Landscape: Ecological Literacy

Landscape architect and scholar Anne Spirn argues that people have lost the ability to “read” the landscape and what it can tell them about resilience and survival: “The meanings landscape hold are not just metaphorical and metaphysical, but real, their messages practical; understanding may spell survival or extinction. . . Relearning the language of landscape that holds life in place is an urgent task” (1998, 11). Spirn returns the term “landscape” to its original German and Scandinavian roots, where it conveys “the mutual shaping of people and place—to encompass both

the population of a place and its physical features: its topography, water flow and plant life; its infrastructure of streets and sewers; its land uses, buildings and open spaces” - rather than a static, picturesque view (2005, 397). Spirn argues that “to know nature as a set of ideas not a place, and landscape as the expression of actions and ideas in place not as an abstraction or as mere scenery, promotes an understanding of landscape as a continuum of meaning” (1998, 24). In this perspective, the city is also landscape and people can begin to understand the city as nested in ecological - as well as economic and cultural - systems. Landscape architectural theorist Elizabeth Meyer accentuates this perspective when she argues that “this intermingling of ecological and social temporal cycles . . . links the activities of everyday life and the unique events of a particular city to the experience of the dynamic bio-physical aspects of the environment. Nature is not out there but in here, interwoven in the human urban condition (2008, 16). Design is one way to reintroduce the practice of “reading the landscape” into everyday life. A design strategy can foster understanding by making social-ecological processes and systems visible and understood. Louise Mazingo, professor of landscape architecture and urban planning at the University of California at Berkeley, argues an important point about linking people to ecology in an urban context:

The next generation will be more ecologically literate, but they will be literate about ecology in a very unprecedented way. The children in these new environmental education programs dwell in cities. Their ecological literacy generates from their everyday urban context, rather than from a rural or wilderness context typical of the environmental education of previous generations. This is a much more socially and culturally inclusive concept of environmental learning which draws upon the vestiges of ecological systems that exist in all parts of the urban landscape. (1997, 12-13)

Design to Facilitate Stewardship

Design can remind people of their dynamic relationship to landscape as well as inspire a stewardship ethic. Meyer argues that “immersive, aesthetic experience can lead to recognition, empathy, love, respect, and care for the environment” (2008, 7):

Designed landscapes need to be constructed human experience as much as ecosystems. They need to move citizens to actions. The designed landscapes of the world take up a small amount of the globe’s surface. Yet they are visited and inhabited by people who have a great impact on the environment in everything they do . . .The

influence of designed landscapes might be much larger than their immediate influence on a local ecosystem or watershed, as worthwhile as designing a rain garden or a green roof that reduces stormwater runoff may be.” (21)

In Meyer’s view, experiences that trigger connections and awareness are essential; between “experiencing and processing, cognition occurs, and a new understanding and empathy towards species and niches around us may be possible” (15). Reframing artesian water in Olympia to make visible not merely the substance, but the ecological and cultural systems that impact it, can become a means to cultivate awareness, empathy, and ultimately, a stewardship ethic. The basis for this connection already exists: an Olympia resident noted: “The sight of that one remaining well, erupting from an expanse of blacktop in a downtown parking lot, is an eloquent reminder that our natural legacy is our responsibility” (FOA website 2013).

02.03 Design as Translation, Abstraction, and Beauty

Designers take many approaches to link people to their ecological context; the precedent review in this thesis touched on several examples. In a theoretical context, certain tactics are especially compelling and these are explored next. In her essay *Ecological Urbanism: a Framework for the Design of Resilient Cities*, Spirn traces the evolution of design as it has increasingly integrated a systems-thinking approach rooted in ecological understanding. Spirn reviews strategies that span the disciplines of urban design and planning, including ecological design, environmental art, sustainable design and planning, green infrastructure, and landscape urbanism (Spirn 2012, 5). Each strategy builds on the successes and failures of previous efforts, yet all attempt at some level to understand and design with systems, evolving processes, and complexity. The next section suggests a few additional tactics that can inform ecological design.

Design as Interpretation

Design is a useful tool for communicating complex ideas in a creative and accessible manner. The principles of interpretation outlined by National Park Service expert Tilden Freeman provide an important basis for thinking about communication of ideas through design. Many of Freeman’s

suggestions can be used to address the design of systems and sites in the context of this thesis: “Any interpretation that does not somehow relate what is being displayed or described to something within the personality of experience of the visitor will be sterile; Information, as such, is not Interpretation. Interpretation is revelation based upon information; Interpretation is also an art, which combines many arts, whether the materials presented are scientific, historical or architectural; The chief aim of interpretation is not instruction, but provocation; Interpretation should aim to present a whole rather than a part” (Freeman 1977, 9). Within the design framework of Olympia’s artesian wells, Freeman’s guidance suggests emphasis on interaction, participation, curiosity, and provocation.

When designing for ecological performance, physical form can be abstract and symbolic while retaining functionality. At times abstraction of ecological processes may be most persuasive in the communication of ideas. Elizabeth Meyer labels this strategy the creation of “hypernature:”

Creating hypernature was prompted by pragmatic acknowledgements of the constrictions of building on tough urban sites and the recognition that designed landscapes are usually experienced while distracted, in the course of everyday urban life. Attenuation of forms, densification of elements, juxtaposition of materials, intentional discontinuities, formal incongruities - tactics associated with montage or collage - are deployed for several reasons: to make a courtyard, a park, a campus more capable of appearing, of being noticed, and of performing more robustly, more resiliently. Sustainable landscape design should be form-full, evident and palpable, so that it draws the attention of an urban audience distracted by daily concerns of work and family, or the over-stimulation of the digital world. This requires a keen understanding of the medium of landscape, and the deployment of design tactics such as exaggeration, amplification, distillation, condensation, juxtaposition, or transposition/displacement.” (Meyer 2008, 17)

Scholar Louise Mazingo argues that design which only emphasizes ecological function can inadvertently bury the story it intends to convey: “Process, unmediated by other landscape conventions, quickly slips from the grasp of comprehension and interest. It does not lend itself to the perceivable order implied by design” (1997, 3). Mazingo argues that a landscape must be “set up for viewing,” much like an interpretive program. Otherwise ecological landscapes “have no coherent aesthetic language which mediates their ecological knowledge . . . the viewer can read the signs, but cannot read the landscape” (5). Consequently “to promote ecological design, making it a perceivably visible landscape experience is all important” (ibid). This is especially true in a public space context, where effective design must strike a balance between heavy-handed education and interpretive suggestions so subtle that they are missed.

Beauty as a Design Tool

Aesthetics theorist Elaine Scarry suggests another compelling tactic in her book *On Beauty and Being Just*: “at the moment we see something beautiful, we undergo a radical decentering.”

When we come upon beautiful things . . . they act like small tears in the surface of the world that pull us through to some vaster space; or they form ‘ladders reaching toward the beauty of the world,’ or they lift us (as though by the air currents of someone else’s sweeping), letting the ground rotate beneath us several inches, so that when we land, we find we are standing in a different relation to the world than we were a moment before. It is not that we cease to stand at the center of the world, for we never stood there. It is that we cease to stand even at the center of our own world. We willingly cede our ground to the thing that stands before us. (1999, 111-112)

Scarry suggests that the experience of beauty can reconnect people with considerations beyond their immediate self. Part of the power of “radical decentering” is that discovery, joy, and feelings of connection are interwoven with the experience of beauty. The experience can also cross boundaries that might separate people’s experience in other ways; gender, age, politics, or economic status, to name a few examples. Scarry also argues that the experience of beauty leads to a desire to replicate and expand that experience, thus leading to the creation of more beauty. It can inspire the “active state of creating - the site of stewardship in which one acts to protect or perpetuate a fragment of beauty already in the world” (114). In this view, beauty invites a commitment to stewardship. It becomes a powerful design tool for connecting people, place, and context: “Something beautiful fills the mind yet invites the search for something beyond itself, something larger or something of the same scale with which it needs to be brought into relation” (Scarry 1999, 29). Recognizing and delighting in relationships forms the basis of a stewardship perspective. The use of interpretation, abstraction, and beauty enable design to foster relationships in an urban public space setting.

02.04 Public Space design, Place-making, and Inclusiveness

The design of public space has generated an extensive body of theory. A few specific considerations can be drawn from this larger theoretical context and addressed in this project.

Public Space Fundamentals

On the most pragmatic level, the perspective of Danish architect Jan Gehl argues that the shape of public space should be ordered based on experience at eye level: “Life, Space, Buildings – in that order” (2010, 193). This hierarchy expresses Gehl’s prioritization of human scale and human needs as the central drivers for design. Gehl argues that “the only successful approach to designing great cities for people must have city life and city space as a point of departure” (198). The central weakness of the Gehl perspective is its lack of ecological grounding; broader ecological considerations are generally limited to issues of transportation and pollution. However, Gehl’s philosophy is fundamentally ecological in a different sense: it focuses intensively on the creation of quality “human habitat,” and in this sense it is invaluable. When integrated into the ecological design framework of this project, Gehl’s theory on public space design provides a solid foundation for assessing and addressing public space possibilities. Gehl outlines basic considerations such as “Protection” (minimizing unpleasant experiences like crime, traffic accidents and unpleasant climactic conditions); “Comfort” (dealing with the quality of things to see and environments conducive to walking, standing, staying, sitting, playing, and activity); “Enjoyment” (addressing matters of scale, use of climactic assets, and aesthetic concerns).

Museologist Judy Rand offers another practical perspective on design for inclusion and satisfaction. Although her work focuses on design of the museum environment, it transfers very well into public space design as well. She titles her guidance “The Visitor’s Bill of Rights” and its intent is to remind designers of the need to address basic needs that contribute to a quality spatial, social, and intellectual experience. (Figure 136).

The Visitors' Bill of Rights

A list of important human needs seen from the visitors' point of view

1. Comfort

"Meet my basic needs."

Visitors need fast, easy, obvious access to clean, safe, barrier-free restrooms, fountains, food, baby-changing tables, and plenty of seating. They also need full access to exhibits.

2. Orientation

"Make it easy for me to find my way around."

Visitors need to make sense of their surroundings. Clear signs and well-planned spaces help them know what to expect, where to go, how to get there and what it's about.

3. Welcome/Belonging

"Make me feel welcome."

Friendly, helpful staff ease visitors' anxieties. If they see themselves represented in exhibits and programs and on the staff, they'll feel like they belong.

4. Enjoyment

"I want to have fun!"

Visitors want to have a good time. If they run into barriers (like broken exhibits, activities they can't relate to, intimidating labels) they can get frustrated, bored, confused.

5. Socializing

"I came to spend time with my family and friends"

Visitors come for a social outing with family or friends (or to connect with society at large). They expect to talk, interact, and share the experience; exhibits can set the stage for this.

6. Respect

"Accept me for who I am and what I know."

Visitors want to be accepted at their own level of knowledge and interest. They don't want exhibits, labels or staff to exclude them, patronize them or make them feel dumb

7. Communication

"Help me understand, and let me talk, too."

Visitors need accuracy, honesty, and clear communication from labels, programs, and docents. They want to ask questions, and hear and express differing points of view.

8. Learning

"I want to learn something new."

Visitors come (and bring their kids) to learn something new, but they learn in different ways. It's important to know how visitors learn, and access their knowledge and interests. Controlling distractions (like crowds, noise and information overload) helps them, too.

9. Choice and Control

"Let me choose; give me some control."

Visitors need some autonomy; freedom to choose, and exert some control, touching and getting close to whatever they can. They need to use their bodies and move around freely.

10. Challenge and Confidence

"Give me a challenge I know I can handle."

Visitors want to succeed. A task that's too easy bores them; too hard makes them anxious. Providing a wide variety of experiences will match their wide range of skills.

11. Revitalization

"Help me leave refreshed, restored."

When visitors are focused, fully engaged, and enjoying themselves, time stands still and they feel refreshed: a "flow" experience that exhibits can aim to create.

Figure 139. Judy Rand's "Visitor's Bill of Rights"
(Image source: <http://www.santacruz museums.org/documents/TheVisitorsBillOfRights.pdf>)

Design for Inclusion: Spatial Strategies

Both Gehl and Rand offer practical suggestions that address basic human needs. Their ideas are fundamental, but others delve in greater depth into topics of significance for this project. A major consideration is the creation of inclusive, democratic public space, which sociologist Richard Sennett acknowledges is elusive:

The cities everyone wants to live in should be clean and safe, possess efficient public services, be supported by a dynamic economy, provide cultural stimulation, and also do their best to heal society's divisions of race, class, and ethnicity. These are not the cities we live in. Cities fail on all these counts due to government policy, irreparable social ills, and economic forces beyond local control. (Sennett 2006, 1)

One strategy promulgated by Sennett returns to the notion of systems and uses it to understand the city as either closed (over-determined) or open: "When the city operates as an open system – incorporating principles of porosity of territory, narrative indeterminacy and incomplete form – it becomes democratic not in a legal sense but as physical experience. In the past, thinking about democracy focused on issues of formal governance, today it focuses on citizenship and issues of participation. Participation is an issue that has everything to do with the physical city and its design" (2006, 4). Sennett references urban theorist Jane Jacobs and her criticism of urban space as a basis for his own thought "She believes that in an open city, as in the natural world, social and visual forms mutate through chance variation; people can best absorb, participate, and adapt to change if it happens step-by-lived-step. This is evolutionary urban time, the slow time needed for an urban culture to take root, then to foster, then to absorb chance and change" (2-3)

As an alternative to the closed system, Sennett offers "three systematic elements of an open city: A. passage territories B. incomplete form C. development narratives. "Passage territories" mimic cellular structure and form dynamic edges rather than boundaries: "The idea of a cellular wall, which is both resistant and porous, can be extended from single buildings to the zones in which the different communities of a city meet" (3). "Incomplete form is most of all a kind of creative credo . . . Architect Peter Eisenman has sought to evoke something of the same credo in the term 'light architecture,' meaning an architecture planned so that it can be added to, or more importantly, revised internally in the course of time as the needs of habitation change" (4). "Narratives of development" suggest that designers "look at the different and conflicting possibilities which each

stage of the design process should open up; keeping these possibilities intact, leaving conflict elements in play, opens up the design system” (4). These strategies recognize the evolving interrelationships that build social spaces in a manner similar to natural systems. By using this knowledge as a design strategy, public space may be more successfully adaptive and welcoming.

Design to Acknowledge Difference

In *Democratic Spaces* Sennett captures the necessary coexistence of contrasting values in public space, and encourages space for interaction that also acknowledges difference: “A different democratic model would be a place where it does not matter whether people understand each other verbally, but they understand each other by their bodies. They can only do that through the form of association in which they are both together, aroused by each other’s presence, and still kept distinct. This is the democracy of the living edge” (2005, 47). Sennett thus argues for a form of spatially inclusive design that allows different people to coexist yet retain their distinctive characteristics. Architectural critic Kim Dovey echoes the importance of allowing difference to coexist: “Differences within places’ are about the degree to which difference is permitted to intrude into a place. To what degree does a place embody difference and to what degree is it purified? Purified places (such as housing enclaves) have a capacity to limit identity formation while differences within places (such as mixed neighborhoods) open up new possibilities. Places of difference are those where the encounter with difference is structured into the life-world both spatially and representationally” (Dovey 2002, 5). As design for public space encounters increasing diversity in urban situations, enabling difference to be acknowledged yet not segregated is a critical strategy. An accessible strategy for spatial determination allows for increased public participation and new ideas of what public space might become. Public space scholars Karen Frank and Quentin Stevens argue that unintended uses of space can “loosen up the dominant meanings of specific sites that give rise to new perceptions, attitudes, and behaviors” (2006, 4). In *Everyday Urbanism*, architectural theorist Margaret Crawford notes that underused public space suggests “a zone of social transition and possibility in the potential or new social arrangement of forms of imagination” (1999, 9).

Dovey writes that

places of ambiguity, hybridity and impurity become valorized as sites for new spatial practices, for the production and performance of new identities and cultures in everyday life. The unstable, the nomadic, the slippery can be seen as authentic—not in the sense of a quest for essences but a quest for new forms of authority and authorship. The difference that makes a difference is that between places of difference and places of purity; between places which give voice to the dis-placed, and places where identity formation is fixed and finished (2002, 5).

Urban space scholar Jeffrey Hou notes that unsanctioned uses of public space can be understood as “expressions of alternative social and spatial relationships” (2010, 12). Examples include claiming room for public activities such as biking in the streets, temporary installations for gatherings, spontaneous events, and a variety of activities that defy or escape existing rules and regulations. Citizen initiatives and informal activities can thus create new interpretations of public space. Hou observes that:

Because of the scale and the mode of production, the making of . . . alternative public space is more participatory and spontaneous, and therefore more open and inclusive. The insurgent public space that they have created . . . reflect the subjectivity of its multiple actors and the broader instrumentality of space as a vehicle for a wider variety of individual and collective actions . . . by resisting against the hegemonic regulations of the contemporary public space and the notion of an undifferentiated public they become active participants in ‘a widening of discursive contestation’ in the public space and public sphere of the contemporary society (2010, 15).

The “insurgent public space” that Hou describes is an expression of cultural and intellectual diversity. Hou is especially interested in spaces claimed by the public that are not always intended to be used in the ways they end up being used. However, it is possible that designers can create spaces that encourage diverse interpretations and uses by emphasizing loose, flexible, and welcoming space and spatial management. Loosely-determined public space, where designers create a framework rather than over-defined program, may encourage spatial use that better responds to evolving community diversity and needs. A design challenge will always remain in finding a balance between “looseness” and creating a strong sense of spatial coherence and intentionality.

Design with Open-Ended Narratives

The layered meanings of public space are the focus of much theory and criticism, and it is helpful to consider how design can integrate

these layered meanings to reflect the history and cultural significance of place: “landscape is loud with dialogues, with story lines that connect a place and its dwellers” (Spirn 1998, 17). The cultural meaning of a place becomes apparent in the way the space is used as well as in the narratives that people construct to convey its emotional significance. These meanings imbue place with a cultural richness that can be lost if the stories and uses disappear over time. It is possible to use the constructed narratives and past uses of a place to shape the contemporary experience of public life. Narratives can become part of public space by revealing layers of meaning that support inclusive, dynamic, and evocative spaces. It is equally important to design for the accumulation of new meanings. Urban historian Dolores Hayden argues that “places make memories cohere in complex ways. People’s experiences of the urban landscape intertwine the sense of place and the politics of space. If people’s attachments to place are material, social, and imaginative, then these are necessary dimensions of new projects to extend public history in the urban landscape, as well as new histories” (1995, 43). Designing space to encourage new memories requires memorable spatial form that also remains open to diverse uses and interpretations, so that users can define their own experiences. Landscape architectural critics Matthew Potteiger and Jamie Puritan consider techniques for designing landscape narratives:

To link the practices of making landscapes to narrative practices requires an expanded notion of text, of the role of readers in producing meaning, as well as recognition of landscape as a spatial narrative shaped by ongoing processes and multiple authors. Design practice derived from understanding these conditions forms ‘open narratives,’ as opposed to the current trend for highly scripted and controlled narratives (1998, 136).

Potteiger and Puritan observe that “narratives intersect with sites, accumulate as layers of history, organize sequences and inhere in the very materials and processes of the landscape . . . ‘landscape narrative’ designates the interplay and mutual relationship between story and place” (ibid). However, Potteiger observes that constructed narratives often take form in built projects as explicit reference to histories, biographies, or emblems that communicate a local sense of place. He rightly points out the limitations of this approach as the only strategy: “narrative need not be conceived as an explicit storyline grafted onto a site as if it were once a blank slate. Narratives are already implicit in landscape, inscribed by natural processes and cultural practices” (original italics; ibid). However, “implicit narratives may be difficult to read if one is looking for conventional stories with clear beginnings, middles, and ends . . . spatial narrative is more about showing, relinquishing control to the viewer/reader who must put together sequences, fill in the gaps and decipher meaning (136-7). Establishing open-ended narratives is an important design strategy because

it honors participation, diverse experiences and interpretations, adaptable forms, and new stories. Potteiger and Puritan label this approach the “open narrative.”

Opening the discursive space of landscape narratives changes the relationship between designer, story, readers/community and landscape. Landscape narratives need not be controlled and plotted stories . . . [they] can open the discourses constituted by narratives that inhere in very ordinary landscapes, and instead of emphasizing closure and unity, opening involves the ongoing processes of narrative production to engage the practice of how people make places and stories a constitutive part of their own experience, interpretation, and memory. (143-44)

The design of public space must by necessity remain as open, flexible, and inclusive as possible if it is to succeed in welcoming diverse users and experiences. There is a significant challenge in designing functional sites that retain strong identity and form yet still anticipate and encourage adaptation. This brief literature review suggests the following strategies: (1) designing to address the basic elements of successful human habitat, (2) understanding form as a platform to support evolving experiences and activities, (3) making space that encompasses both past social and historic narratives and new constructed meanings, (4) remaining loose and adaptable. Through application of such strategies it is possible that public space can honor the people who gather, play, debate, and build community within it.

03 DESIGN PRINCIPLES

Based on some of the concepts presented in the previous section, ten fundamental principles underlie all aspects of this design proposal. While these ideas bridge all scales of design, each principle requires adaptation within the context of a specific design challenge so that it responds to the inherent assets and character of the project.

- **WORK CONCURRENTLY AT MULTIPLE SCALES.**

Emphasize multi-scalar design to develop responsive concepts. Acknowledge complexity and interconnections; shift between the parts and the whole; use contextual thinking.

- **BUILD NESTED SYSTEMS.**

Approach design through an understanding of nested systems and cycles. Think and design with networks, not individual sites, in order to build resilience and reveal interrelated systems; focus on relationships rather than solitary elements.

- **REVEAL LAYERED NARRATIVES.**

Design projects to reveal layered systems of social, historical and ecological narratives that inhere in place and context.

- **DESIGN FOR MULTI-FUNCTIONALITY.**

Prioritize design interventions that address multiple needs at multiple scales using the least number of features.

- **FACILITATE ECOLOGICAL AND SOCIAL RESILIENCE.**

Integrate ecological considerations, awareness, and stewardship into design to foster resilience.

- **ACHIEVE ELASTIC DESIGN.**

Create places and forms that encourage multiple interpretations. Acknowledge the tension between scripted and unscripted use of space to encourage appropriation and creativity.

- **HONOR JOY AND LEARNING THROUGH DESIGN.**

Honor mystery, play, discovery, and delight - for all ages.

- **PRIORITIZE INCLUSIVENESS.**

Create inclusive space that honors all species. Acknowledge the value both of grit and of grace; each has a place and they attract different users who are all welcome in public space.

- **DISSOLVE BOUNDARIES.**

Continually question the relevance of existing boundaries. Evolve with contemporary scientific understanding and shifting social needs. Address both physical and intellectual boundaries to embrace exceptional form and thought.

- **BUILD COMMUNITY.**

Create spaces that cultivate community, joy, and social resilience.

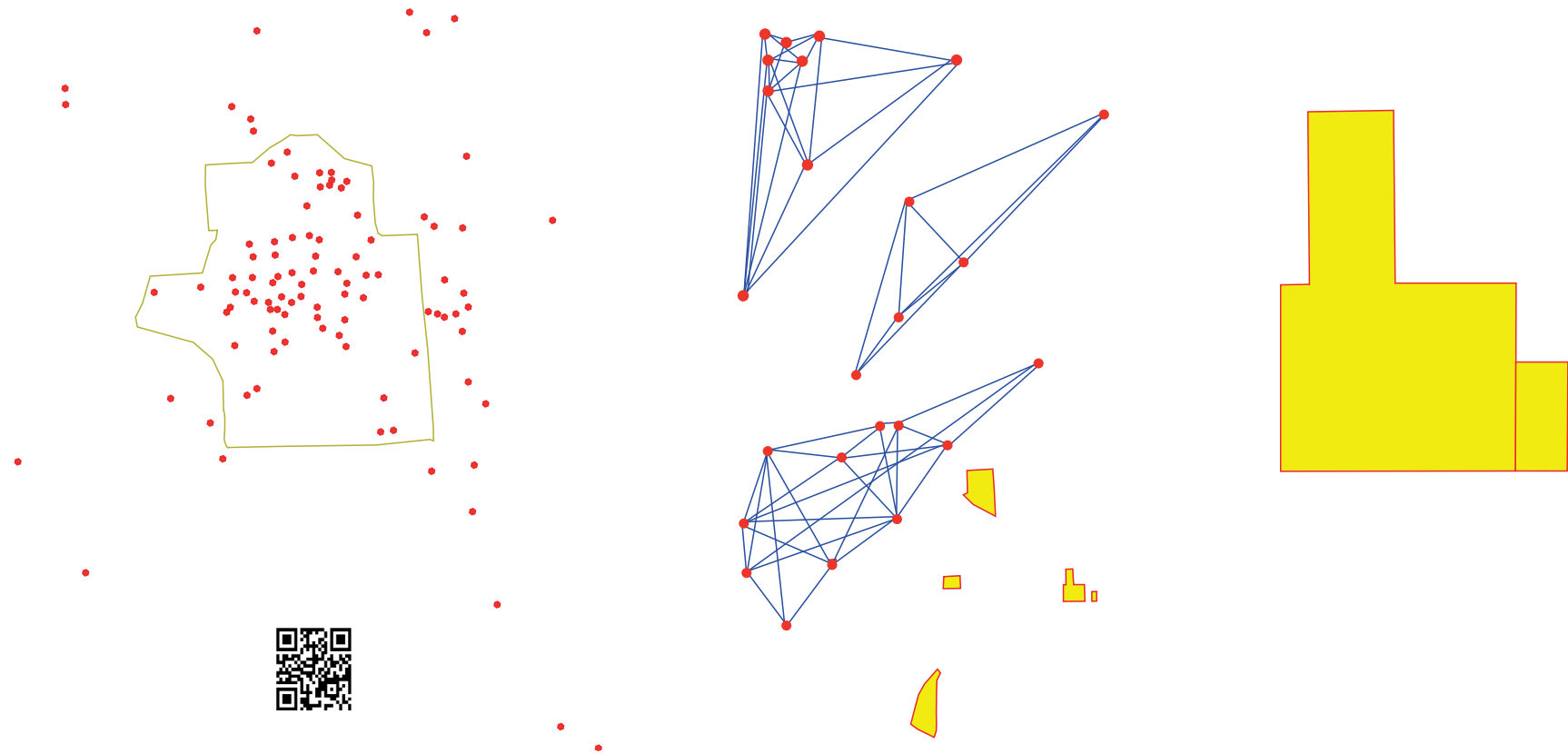
04 STRATEGIES TO SHAPE EXPERIENCE

As introduced during the precedent review, this design proposal takes the form of nested interventions which occur at multiple scales of experience:

- First design intervention: A unified marking system at the citywide scale
- Second design intervention: Embedded networks within the marking system
- Third design intervention: Design of a significant public space

The following figures illustrate the design goals and strategies that will be used to achieve these interventions.

Figure 140. Overall Design Framework



100 + Well Markers
Digital Narratives

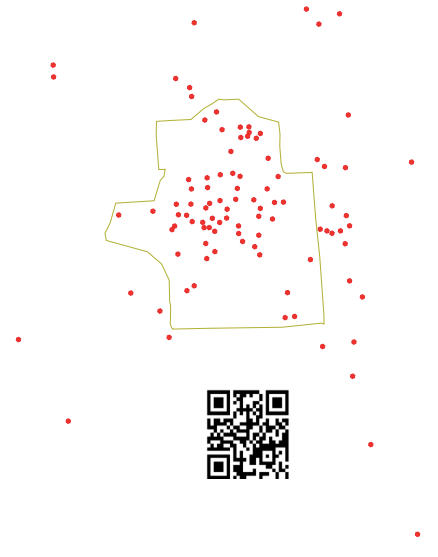


Interpretive Pathways
Uniquely Developed Well Sites
5 New Public Spaces



1 Site

Figure 141. Citywide Marking System Framework



DESIGN GOALS | PROGRAM

DESIGN STRATEGIES

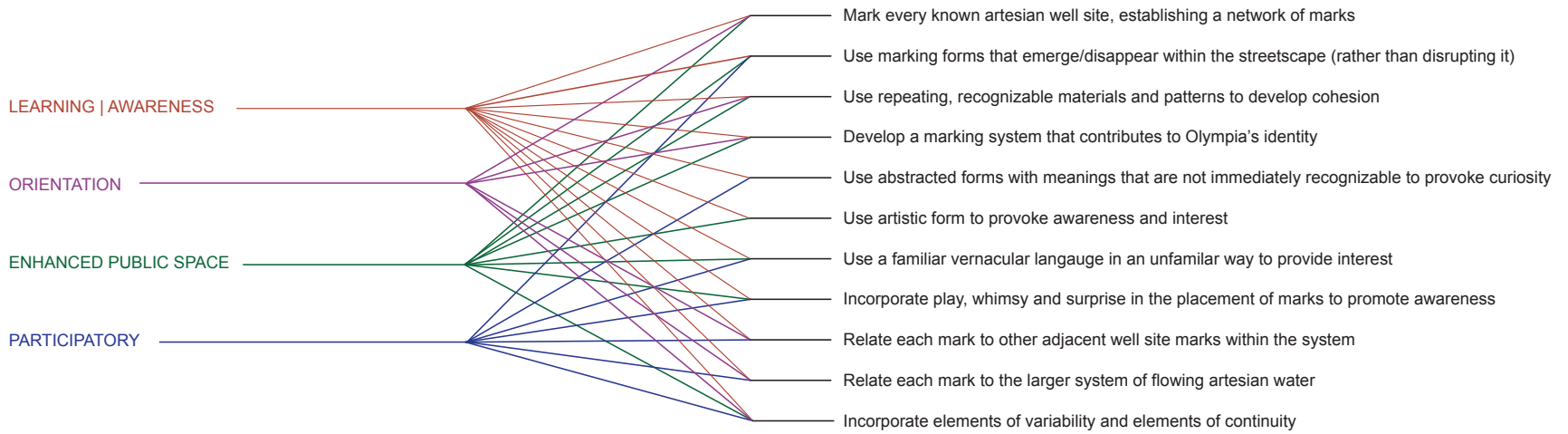
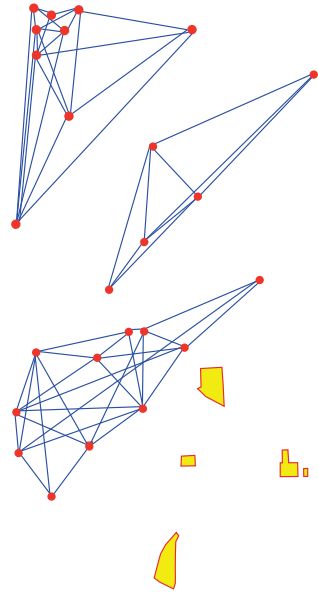


Figure 142. Embedded Network Framework



DESIGN GOALS | PROGRAM

DESIGN STRATEGIES

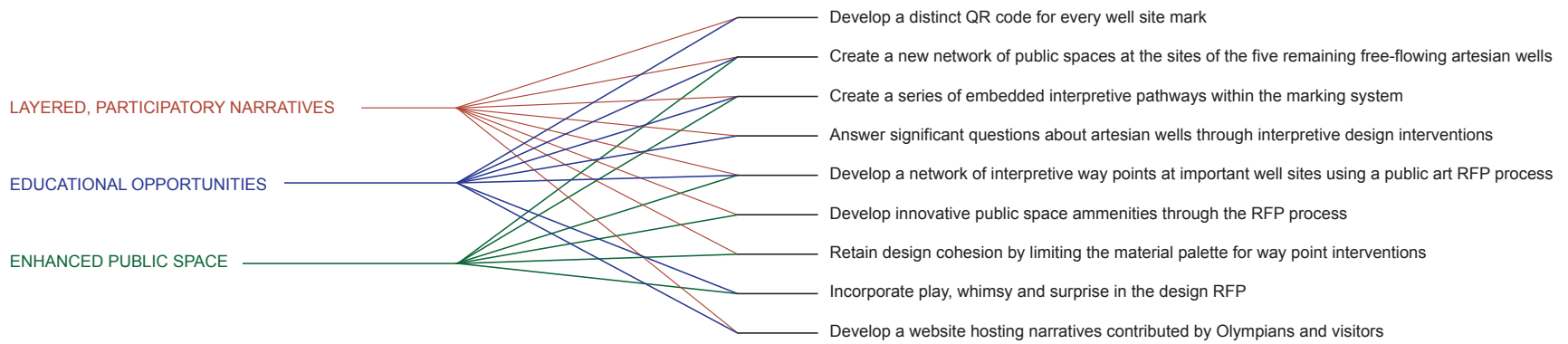
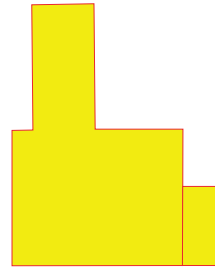
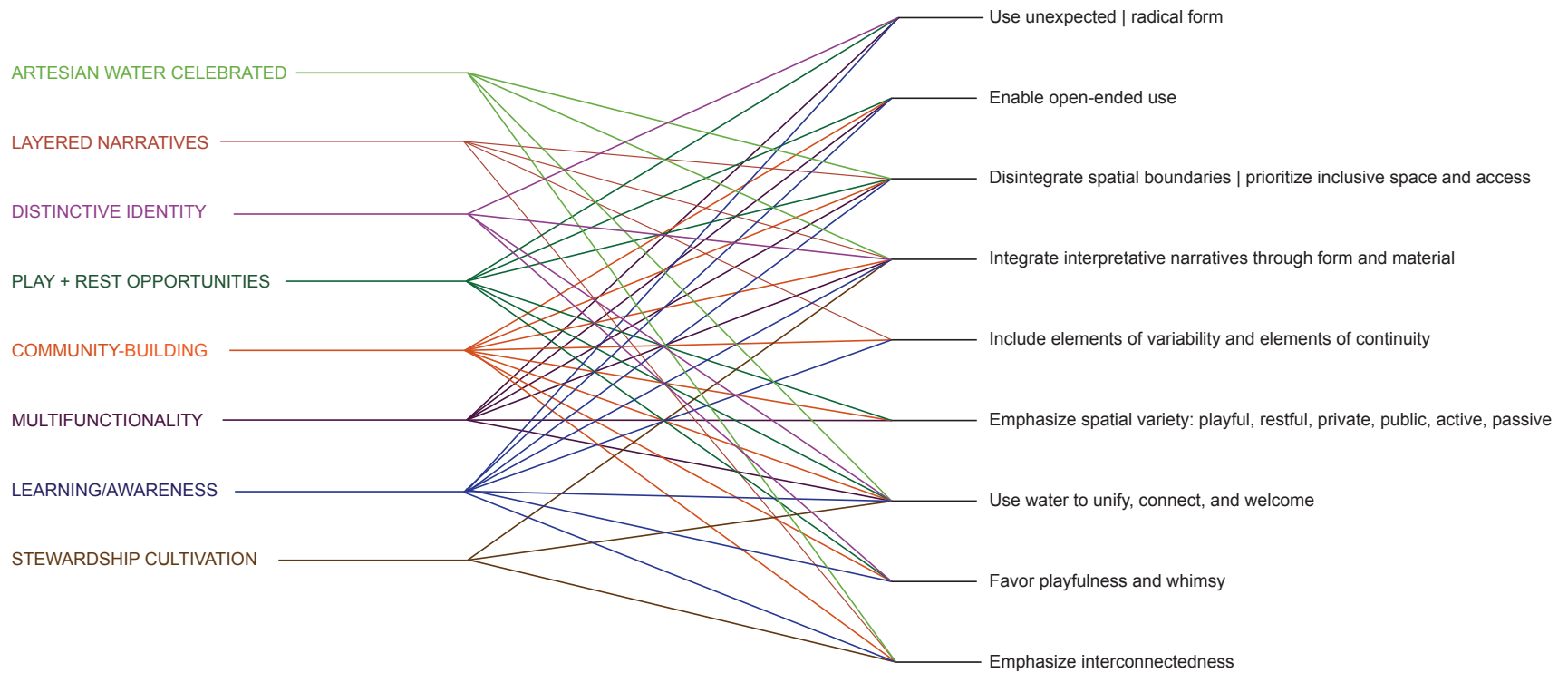


Figure 143. Site Design Framework



DESIGN GOALS | PROGRAM

DESIGN STRATEGIES



CHAPTER 6

DESIGN RESPONSE

CHAPTER 6 **DESIGN RESPONSE**

This chapter explores the design proposal for this thesis, in which design takes place at three scales: the citywide scale, a network scale, and the scale of an individual site. Each section introduces one part of the design proposal and explores its implementation through a brief discussion and a series of illustrations. The chapter is organized as follows:

- First Design Intervention: A unified marking system at the citywide scale.
- Second Design Intervention: Networks of uniquely developed well sites, interpretive pathways, and five new public spaces that feature free-flowing artesian water.
- Third Design Intervention: Development of a site – Friends of Artesians Plaza

01.00 LARGE-SCALE DESIGN INTERVENTION: A UNIFIED MARKING SYSTEM AT THE CITYWIDE SCALE

The first intervention proposes a systematic marking of every known artesian well site. The marking system spreads across the city to indicate the presence of artesian wells, flowing or not. Markers are located in sidewalks, on walls, in streets, and inside buildings -- wherever partnerships between private owners and public officials can be forged to reflect appropriate well site locations. These markers establish a non-linear pattern within the city, connecting history, community, and ecology in an interconnected network. The artesian markers take the form of the material language of infrastructure – shaped metal, adapting it for this specific purpose. Survey monuments, valve locators, hydrants, faucets, pipes, grates, and storm drains are all previously existing visible elements of the infrastructure of water. Durable, communicative, and concise, these elements already reveal systems flowing through the city. The artesian well site markers will add a new layer to the narratives of water while bringing the presence of artesian water back into the public sphere.

01.01 THE GOAL

The individual marker of each artesian well site is designed to enhance urban space at the pace of the pedestrian. Moving through the city in the future, pedestrians will repeatedly encounter the markers and the emerging pattern formed by the overall marking system. The markers may evoke questions about the meaning of each mark and why so many are scattered across the surface of Olympia. Of course, others may barely notice, and the markers may simply disappear, unexplored-- part of the urban infrastructure like manhole covers or overhead electric wires. The significance of the markers will become available to those guided by curiosity and a spirit of discovery. The markers will be found throughout the city, acknowledging the well sites and bringing them into the consciousness of those who are paying attention.

01.02 A PHASED APPROACH

The marking systems will be implemented with a phased approach. Phasing will generate public discourse about the concept and may even inspire excitement about its realization. The first markings will follow a common street art tactic: the stencil. A well mark will be stenciled on the

street and/or sidewalk surface at every known well site. No doubt this marking will spark conversation and questions. These marks can be applied strategically over a period of days or weeks so that the pattern of well sites will emerge slowly but continuously, provoking curiosity, discussion, and awareness. As the proposal for a permanent marking system garners public support, the second phase of implementing the marking system will begin.



Figure 144



Figure 145

Figures 144 and 145. Artesian well stencil for marking the streets of Olympia



Figure 146. Stencil marking former Artesian Well #35 at the corner of Fourth Ave E and Washington Street SE, Olympia

01.03 THE FINAL MARK

The permanent artesian well site markers will have elements of continuity and elements of variability. The markers will create a recognizable pattern yet reflect the distinct location of each well site. In the markers' cast steel material there will be a repetition of arcs and directional lines to indicate relationships among the sites, and the presence of a unique number in each marker will provide individuality but also continuity among all of the markers. The focus of each marker will be the number which will reflect the oldest known survey number for each particular well site.

Variability will occur in the unique arcing pattern inscribed in the surface of each marker that will be created by the relationship of each specific well site marker to each of the five remaining publicly accessible free-flowing artesian wells. Each inscribed arc is part of an implied circle (or ripple) originating at one of the five remaining free-flowing wells; following the radius of any arc to its center will lead to artesian water (Figure 147). Also specific to each marker are the positions of three directional lines that will emerge from the marker center. These lines point to the three closest artesian well sites; their lengths represent relative distance; each line is labeled with the associated well number.

Thus, for each well site there is:

- (1) a unique identity number
- (2) an array of arcs
- (3) directional lines

Together these mark its presence and indicate its connection to the larger system of markings. The material and overall aesthetic will remain constant, providing a recognizable, continually recurring pattern of reference across the surface of the city. Figures 148 through 154 on the following pages illustrate the conceptual development of the marker.

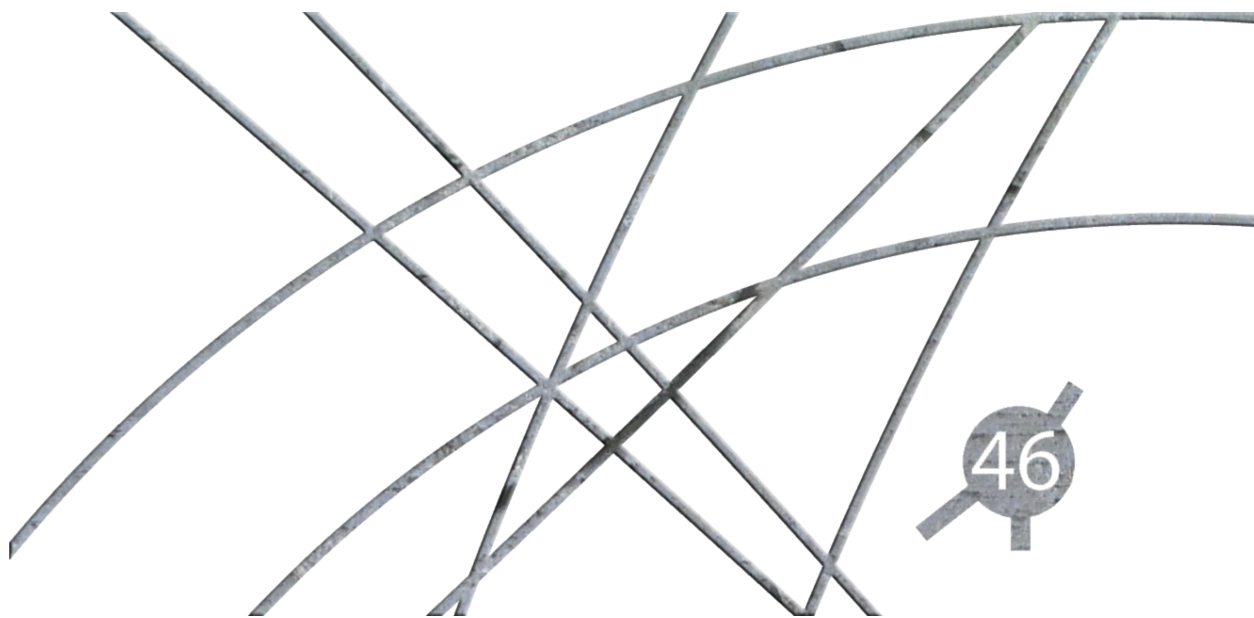


Figure 147. Example of a permanent metal marker for Artesian Well #46 in Olympia.

CONCEPTUAL DEVELOPMENT
SEQUENCE FOR WELL SITE
MARKERS

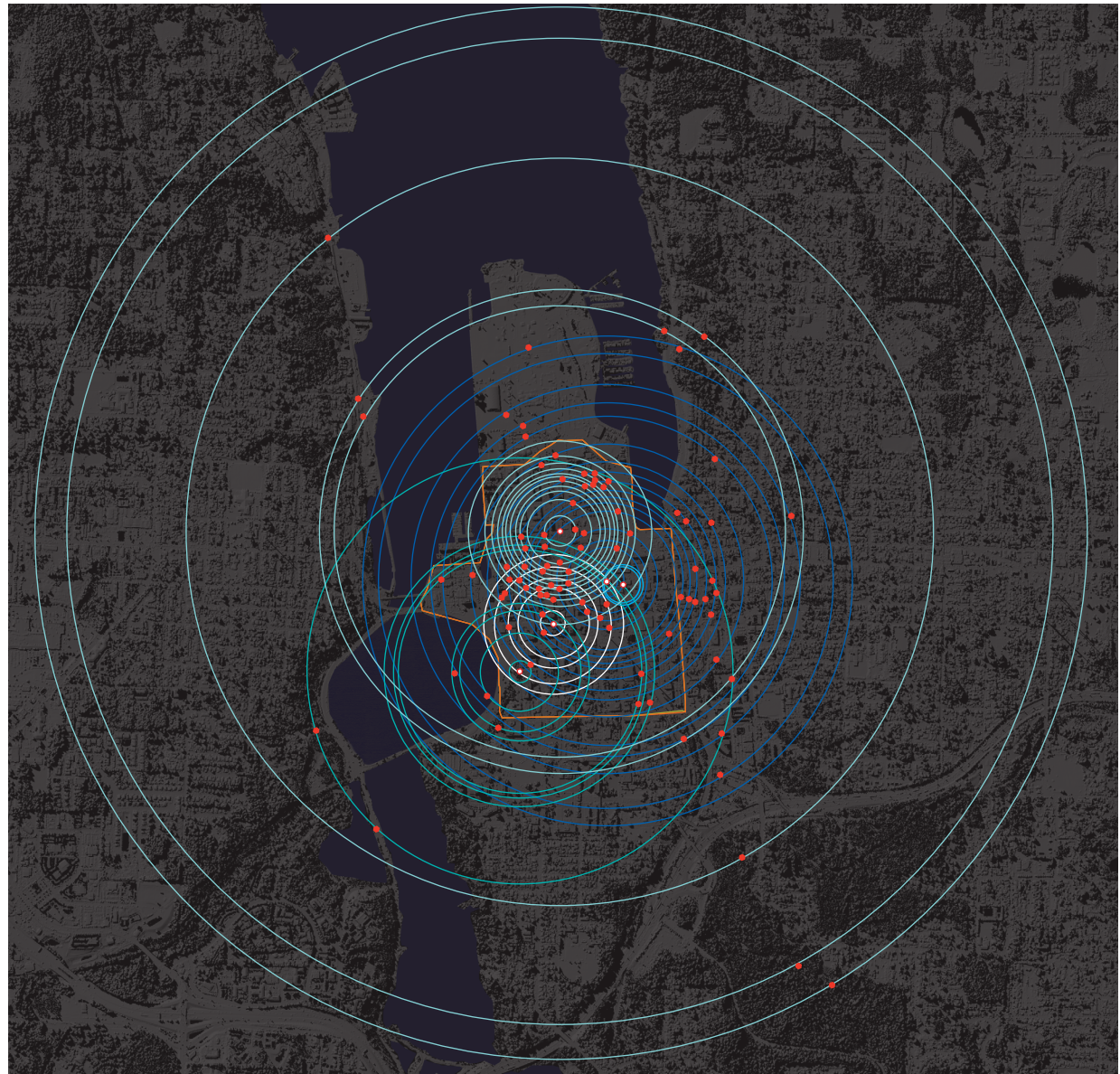
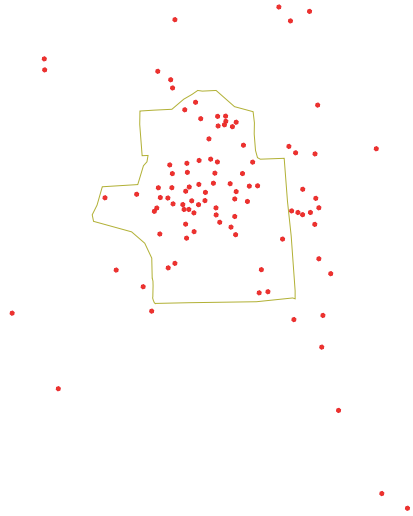


Figure 148. Conceptual illustration of artesian water flowing from each of the five remaining artesian wells.

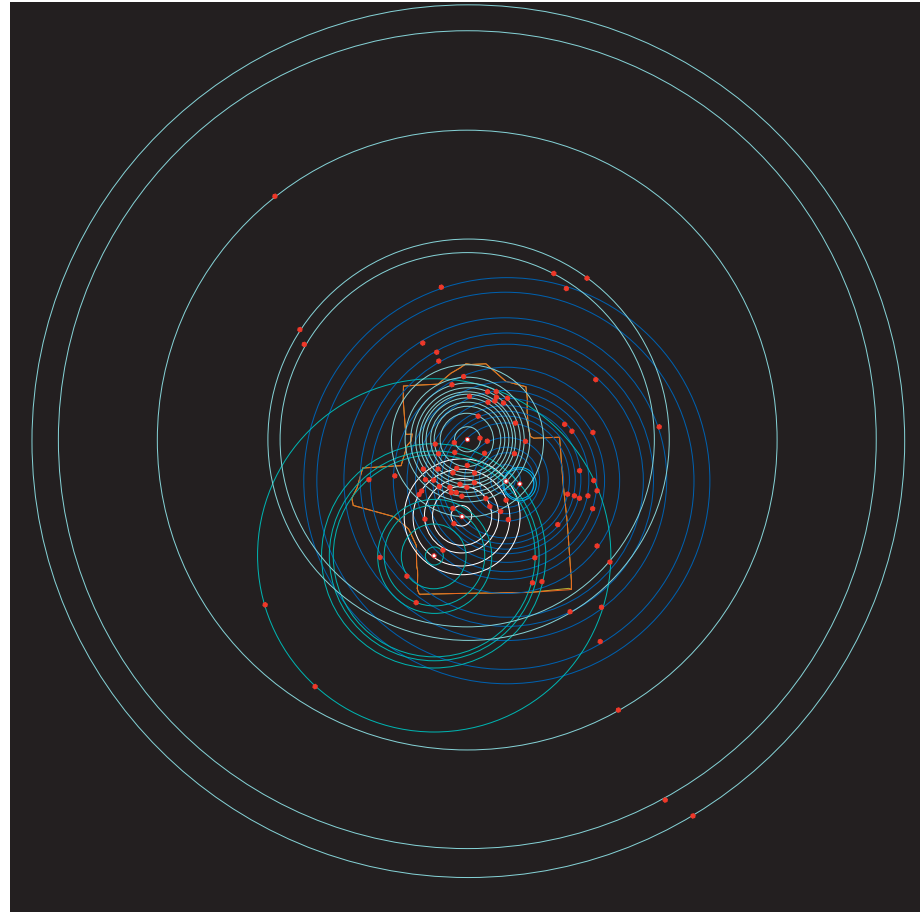


Figure 149. Intersecting artesian flows.

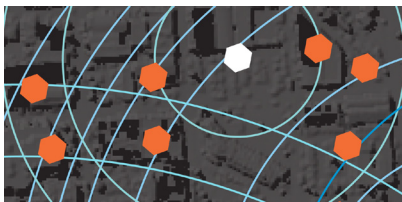


Figure 150. Artesian Well #22.

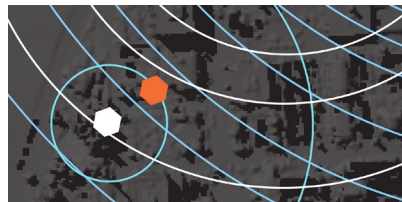


Figure 151. Artesian Well #29.

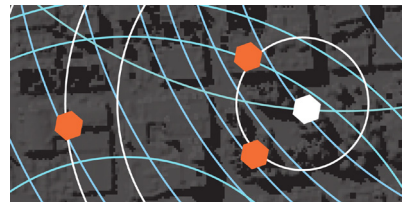


Figure 152. Artesian Well #39.

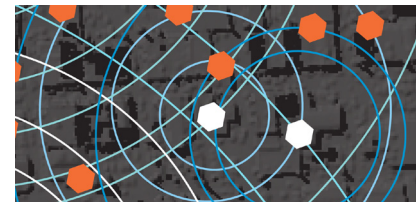


Figure 153. Artesian Wells #46, 82

Above: illustrations of arc patterns at specific well sites. Numbered well sites are white.

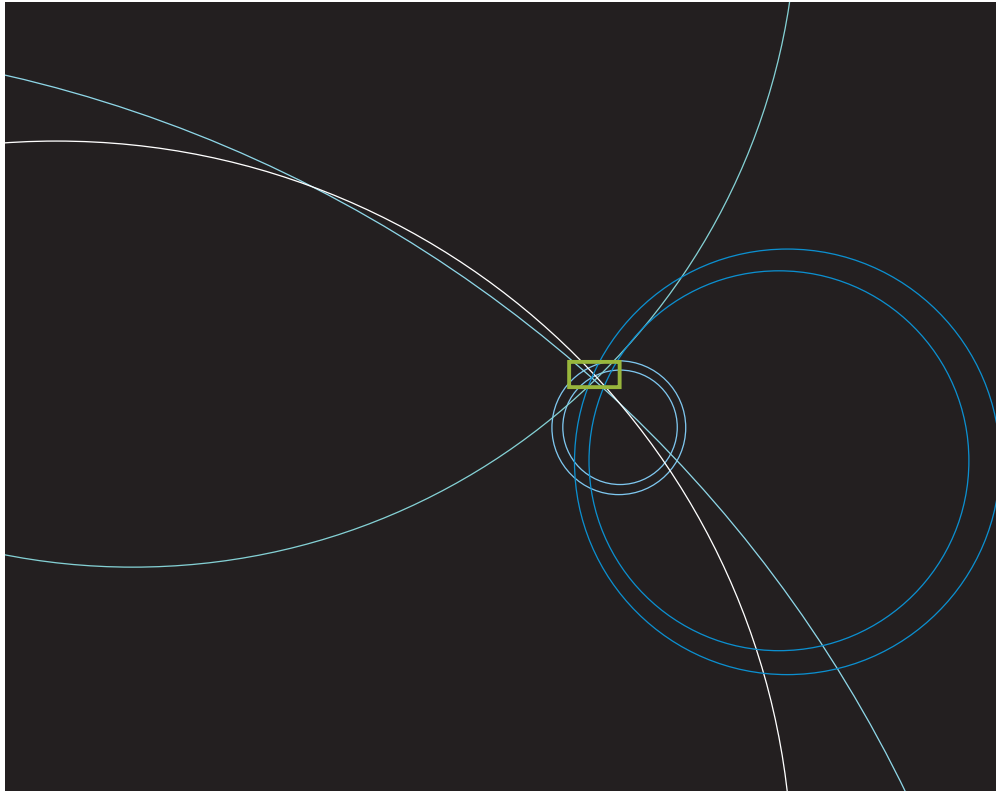


Figure 154

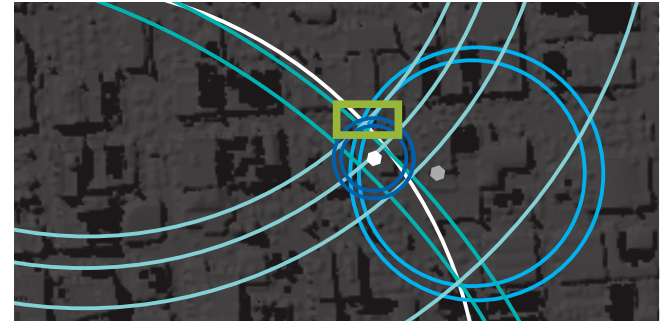


Figure 155

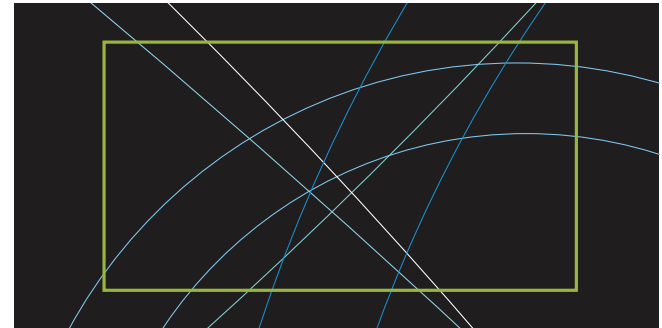


Figure 156

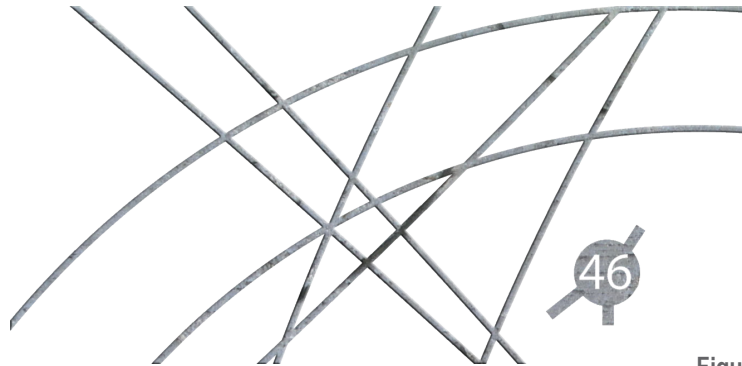


Figure 157

Figures 154-157. Development of marker for Artesian Well #46.

MARKING SYSTEM
IMPLEMENTED ON THE
STREETS OF OLYMPIA



Figures 158. Permanent marker for Artesian Well #35.



Figure 159. Permanent marker for artesian well in downtown Olympia.

01.04 LAYERED NARRATIVES WITHIN THE MARKING SYSTEM

The marker system draws attention to the physical location of every historic well site. It will also bridge physical and virtual worlds to open the door to understanding stories associated with artesian water, ecology, history, and community. Community members will be able to contribute to a digital repository managed as a community “wiki” site that will be associated with the artesian wells. By uploading oral histories, old postcards, family photos, and other contributions that can be digitally linked to each marker, the community will tell the story of each site and the people who lived or worked there. The markers will thus serve both as physical monuments and as digital storehouses where stories are collected as part of an ongoing public dialogue. Each marker will bear a distinctive “quick response code” (“QR” code) next to the well number.¹ (Figure 160) Narratives will be digitally accessible and will attach a rich collection of narratives to each well site to be uncovered by those who are interested or even just curious. This strategy culminates in the creation of an online collective memory website with links embedded within the system of site markers.

Creating a virtual warehouse of narratives is especially compelling because it establishes an adaptable system. Like the well sites, the stories will reveal different perspectives and understandings of the past development of Olympia, but the virtual world is flexible and retains the potential to add future narratives as well. The marking system is thus a “living” repository for community memory and discussion that reflects evolving experiences and newly formed memories. Community residents may know of additional well sites that were never formally surveyed; these could also be added to the marking system, creating a comprehensive documentation of Olympia’s artesian well story. The marking system can become an evolving participatory storytelling system linked to an increasing number of artesian well sites. Figures 161 and 162 on the following pages illustrate potential layers of storytelling that could be associated with various well sites.



Figure 160.
Sample QR code.

¹ Two-dimensional QR codes consist of an array of black and white squares linked to a URL. The codes can be read by a camera phone and they connect the image to a website.

IMAGINED LAYERS OF NARRATIVES
ASSOCIATED WITH SPECIFIC WELL SITES

WELL SITE #22 - PIPE IN PARKING LOT (2013)
LOCATED ON FILL LAND THAT CREATED
THE PENINSULA (1893 → 1980s)
OLYMPIA HARBOR 1895 - USGS SURVEY

DUNWICHISH PEOPLE DIGGING CLAMS (BEFORE
OYSTER PLANT WAS BUILT - CIRCA 1893)

1912 POSTCARD REGARDING J.J. BRENNER
OYSTER PROCESSING PLANT

VIEW LOOKING EAST TOWARD OLYMPIA CIRCA 1928 -
CARS ON THE BRIDGE!

~ 1909 SHIPPING LUMBER FROM OLYMPIA HARBOR



Figure 161. Potential narratives for Artesian Well #22.



Figure 162. Potential narratives for Artesian Well #46.

02.00 MID-SCALE DESIGN INTERVENTIONS:

NETWORKS OF UNIQUELY DEVELOPED WELL SITES, EMBEDDED INTERPRETIVE PATHWAYS, AND FIVE NEW PUBLIC SPACES FEATURING FREE-FLOWING ARTESIAN WATER

At a more limited scale, the next series of interventions addresses selected well sites to develop them with greater detail. For the selected well sites, individual design proposals will focus on revealing the invisible narratives of Olympia's artesian wells. The sites included in these networks do not feature free-flowing artesian water at present. Those sites that have capped wells could explore the possibility of reopening the well, while other sites would be designed without flowing water.

- The city will issue RFPs for design interventions by artists, architects, landscape architects, and others at well sites of significance; as these interventions are implemented over time, the sites will become public space amenities and will enhance the public realm in the city of Olympia.
- A series of interpretive networks or "webs" will be established to link groups of developed well sites. The interpretive networks will answer questions about artesian water and Olympia, connecting people to historical, ecological, and cultural narratives.
- A network of five new public spaces will celebrate the five remaining free-flowing well sites.

02.01 DESIGNING “FUNCTIONAL” NARRATIVES:

DEVELOPING SELECTED WELL SITES AS PUBLIC SPACE AMENITIES AND ART USING AN RFP PROCESS

Specific well sites will be designed as public amenities through a Request for Proposals (RFP) process. The selected sites have particularly rich layers of narrative that invite further exploration and expression. By using an RFP strategy, a broad range of public artists and designers can participate in the process of revealing Olympia’s invisible history. Furthermore, innovative thought and design will result from a call for proposals, giving the city an array of options to choose from. The projects will convey layered narratives while also meeting public arts or public amenity goals. There are many possibilities for how such sites might be designed. Basic amenities can be provided through the design of new seating fixtures or bike racks that also reflect the artesian well narratives. Public art might take design in a different direction. For example, a sculpture could be designed as a “tidal gauge” at a free-flowing artesian well site, revealing the condition of the tides at any given time. The relationship between piezometric head and tidal status can be made visible so that those in the center of downtown would know if the tide is in or out by looking at the height of the artesian flow. Creativity and innovation for all well site designs will be encouraged to enhance the pedestrian experience and to encourage learning, lingering, encountering, and chatting with others in the downtown core of Olympia.

SAMPLE Request for Proposals (RFP)

City of Olympia

Public Art Program, on behalf of the Olympia Department of Arts, Parks and Recreation

“Artesian Water Public Space Amenities for downtown Olympia”

OVERVIEW

The City of Olympia is seeking a design team to conceptualize, design, engineer, fabricate and install “Public Space Amenities” in the downtown public right-of way, near select historic artesian well sites. “Artesian Water Public Space Amenities” can include, but are not limited to, proposals that merge public art and public amenities such as parklets, unique seating or street furniture, bike racks, shelters, tree benches or tree grates, wayfinding elements, lighting features, sculptures, murals, green infrastructure elements such as stormwater planters, or other innovative proposals that will achieve the following overarching goals:

- Convey multiple narratives associated with the unique artesian well located at the site of focus
- Provide multiple functions, not merely narrative or artistic contributions
- Prioritize use of specified materials (cast steel, cast iron, stone etc.)
- Relate to the surrounding streetscape
- Relate to the overall artesian well marking system already in place

This RFP is an effort to cultivate a strong sense of city identity; to educate visitors and residents about the ecology, history, and community stories that shape Olympia; to create a beautiful and enjoyable streetscape; and to foster economic development in downtown Olympia. The Public Space Amenities will offer creative, multifunctional elements that contribute to Olympia’s sense of place as both the Capital City of Washington State and a “city of artesian water.” Design Team respondents to this RFP should

Figure 163. RFP for artesian water public space amenities

be able to demonstrate a rich set of capabilities to fully address the scope and intent of the Public Space Amenities project.

LOCATION | CONTEXT

The selected Public Space Amenities will be located at each of the locations indicated on the attached map. Preliminary location options are suggested general areas; however, exact location adjustments may be necessary depending on cost, size, scale or content of the proposed elements. Be advised that works should be designed for the public-right-of way. However, innovative proposals that include collaboration with private property owners are encouraged to envision bridges between the public and private realms.

MISSION

Downtown Olympia offers a vibrant and rich experience for all generations; its attraction builds upon a rich history and contributes to the present lives of locals with an ever-evolving appeal. The Artesian Water Public Space Amenities project benefits current and future visitors by celebrating the history, ecology, and community of Olympia and by instilling a greater appreciation for the intrinsic qualities of a wonderful city. Multiple levels of complexity and storytelling are possible at each of the historic artesian well sites. The Public Space amenities proposal should contribute to an overall system of artesian water awareness as well as offer a highly creative and unique -but buildable approach to enhancing the public realm.

02.02 EMBEDDED INTERPRETIVE PATHWAYS (WEBS)

The next design intervention further expands the narrative potential of the selected well sites developed through the RFP process. Developed well sites will form networks that convey more complex interpretive narratives about artesian water or about Olympia. Each site will become an informational node or waypoint in its network.

The networks create webs rather than linear stories with a clear beginning, middle, and end. Sequential experience of the sites matters less than experience of the whole narrative as revealed through the web of sites. This approach encourages exploration and digression from daily errands, so that downtown visitors can engage with the interpretive networks without deliberately planning an excursion. Learning is linked to discoveries at particular well sites that aspire to trigger curiosity. To understand the entire story, other pieces of that pathway can be pursued. The overall design of the interpretive webs enables discovery, curiosity, and a fundamentally participatory and adaptable experience. People can decide whether or not to engage with this part of the landscape of Olympia, as time and interest permit. The embedded interpretive webs can be accessed via printed maps or digital guides; the design of waypoints will also make clear that each site is part of a special linked network.

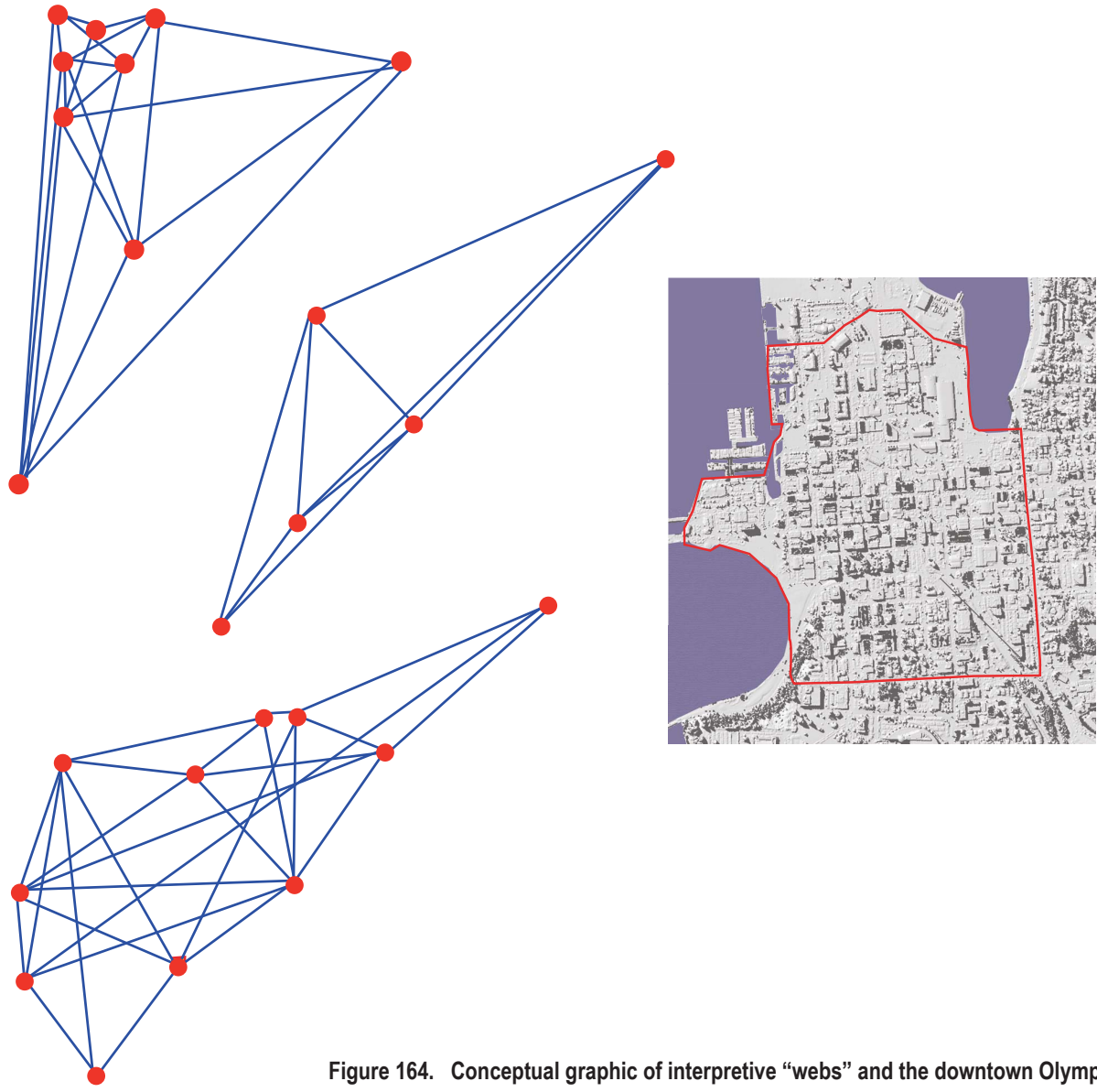


Figure 164. Conceptual graphic of interpretive “webs” and the downtown Olympia area where they apply.

INTERPRETIVE WEB ILLUSTRATIONS

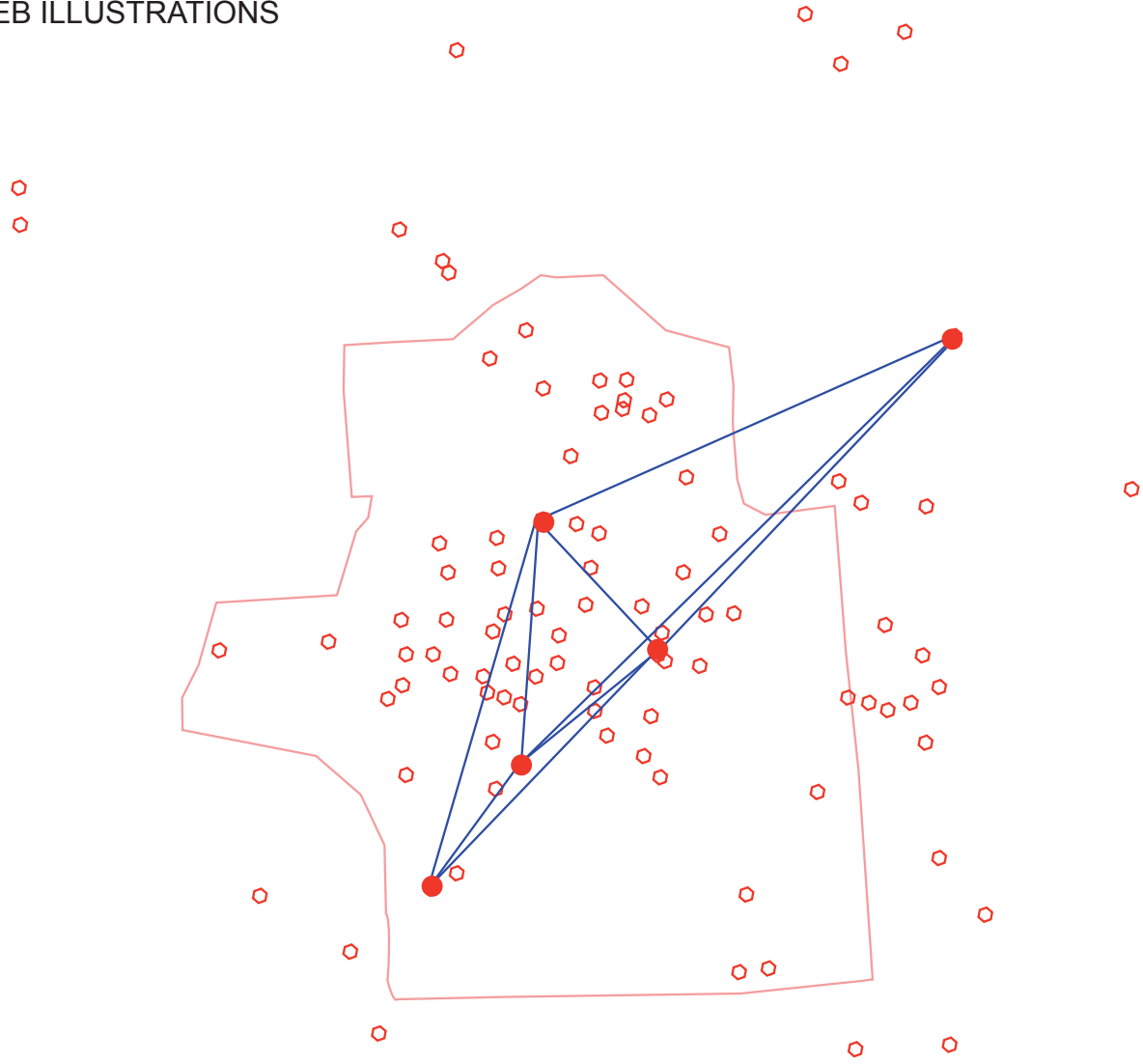
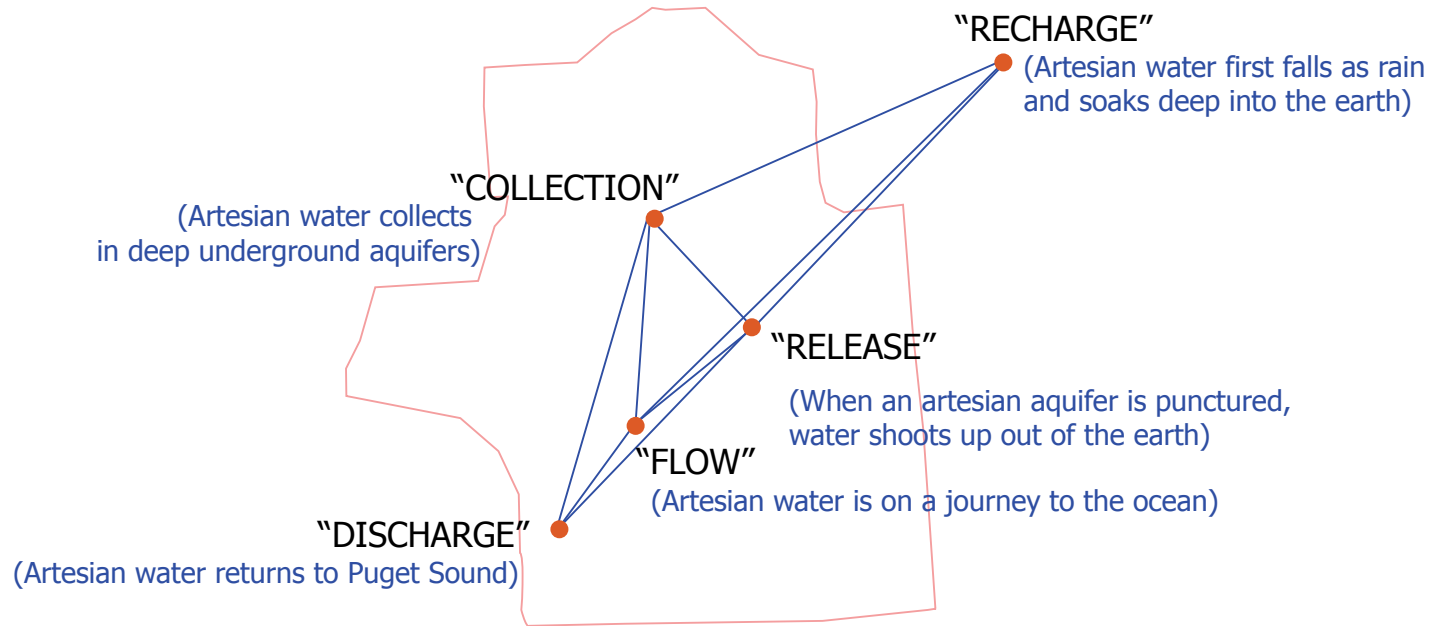


Figure 165. Conceptual graphic of “Artesian flowpaths” interpretive web. This web leads people through sites that explore different aspects of artesian water, how it comes to be, and what happens to it.



QUESTIONS ANSWERED IN THIS WEB . . .

- What is artesian water?
- Where does it come from?
- Where does artesian water go?
- How does it get into an aquifer? How deep is it?
- Why does it shoot out of the ground?
- What happens to artesian water after a well is created?
- How old is the water? How do we know?

Figure 166. "Artesian flowpaths" interpretive waypoints.

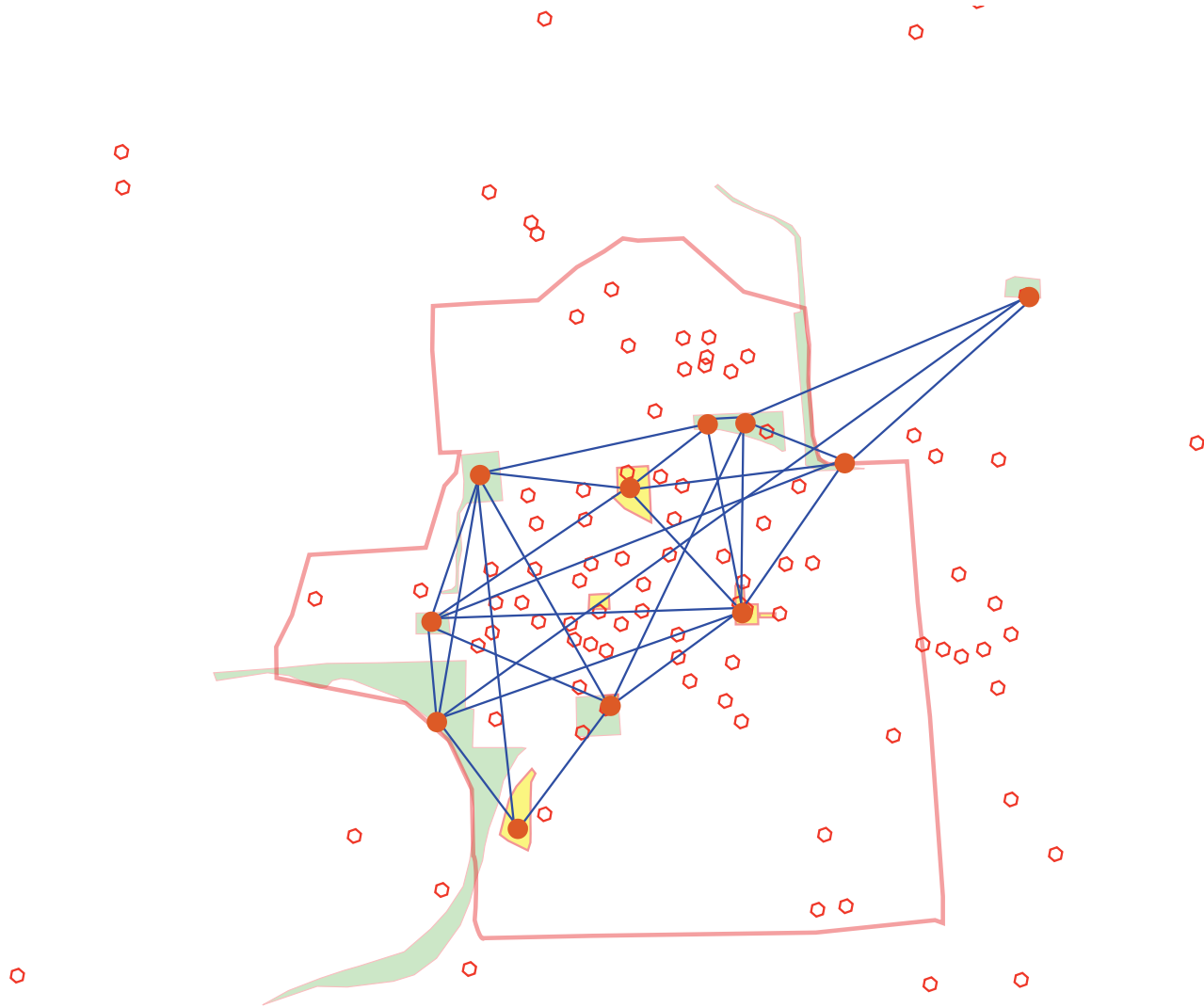
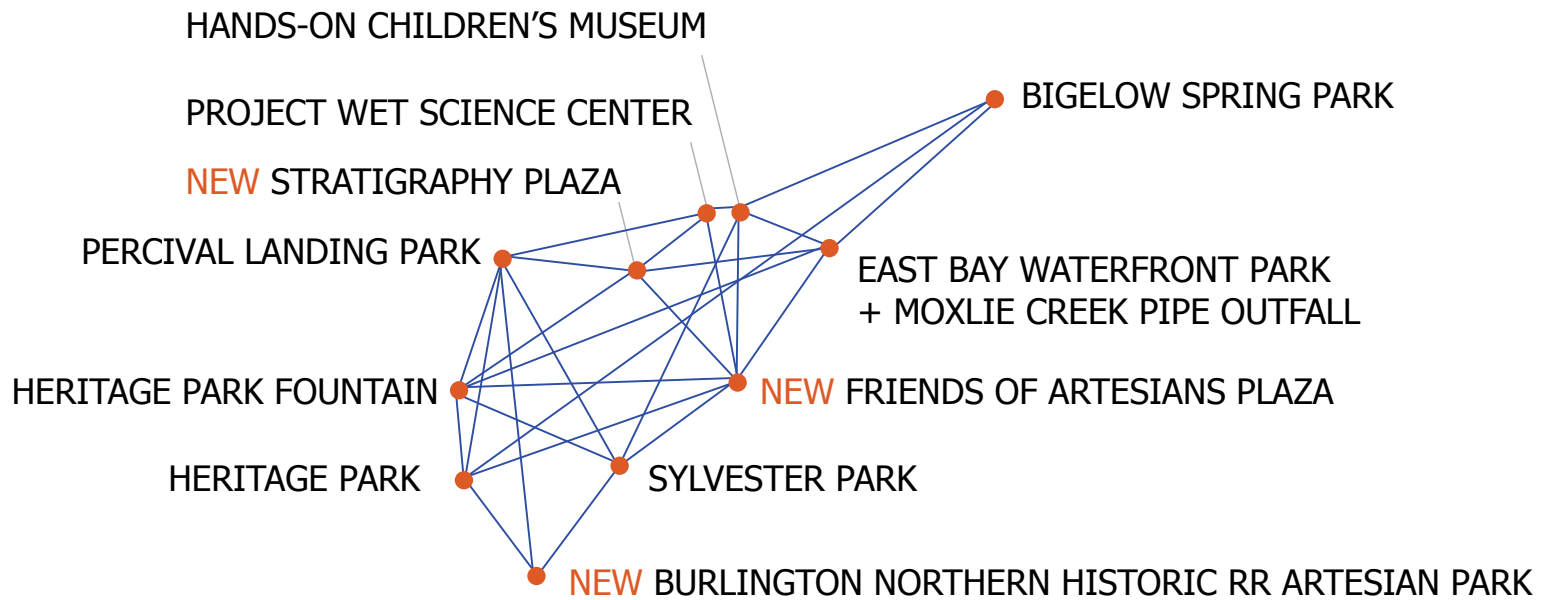


Figure 167. Conceptual graphic of “Children’s Waterways” interpretive web. This web leads participants through a mix of existing water-related educational experiences while integrating new artesian well public spaces into the story. The web offers a range of interactive experiences focused on play, exploration, and curiosity to foster understanding of water in Puget Sound.



QUESTIONS ANSWERED IN THIS WEB . . .

- Where can kids play in the water? (Bigelow Springs, Hands-On Museum, Friends of Artesians Plaza, Heritage Park Fountain)
- Where can kids learn about the hydrogeology and Puget Sound?
(Bigelow, Hands-On Museum, Friends of Artesians, Stratigraphy Plaza, Port of Olympia, Heritage Park)
- Where can kids learn what happens to wastewater? (Project WET Science Center)
- Where can kids learn about the original form of Budd Inlet, before it was altered?
(Stratigraphy Plaza, Hands-On Museum, Burlington RR Artesian Park, East Bay Waterfront Park)
- Which playgrounds (with play structures) are near water? (Percival Landing Park, Friends of Artesians Park, Hands-On Museum)

Figure 168. "Children's Waterways" interpretive waypoints.

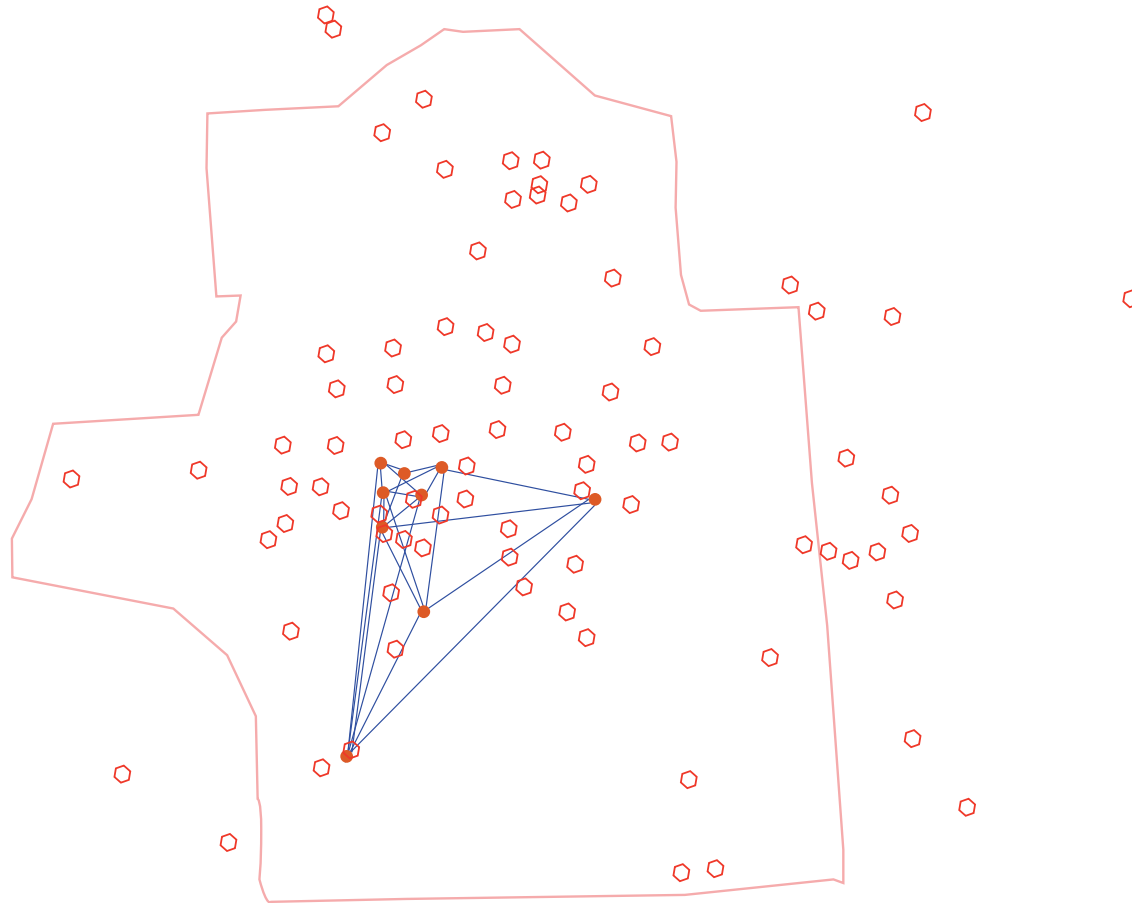
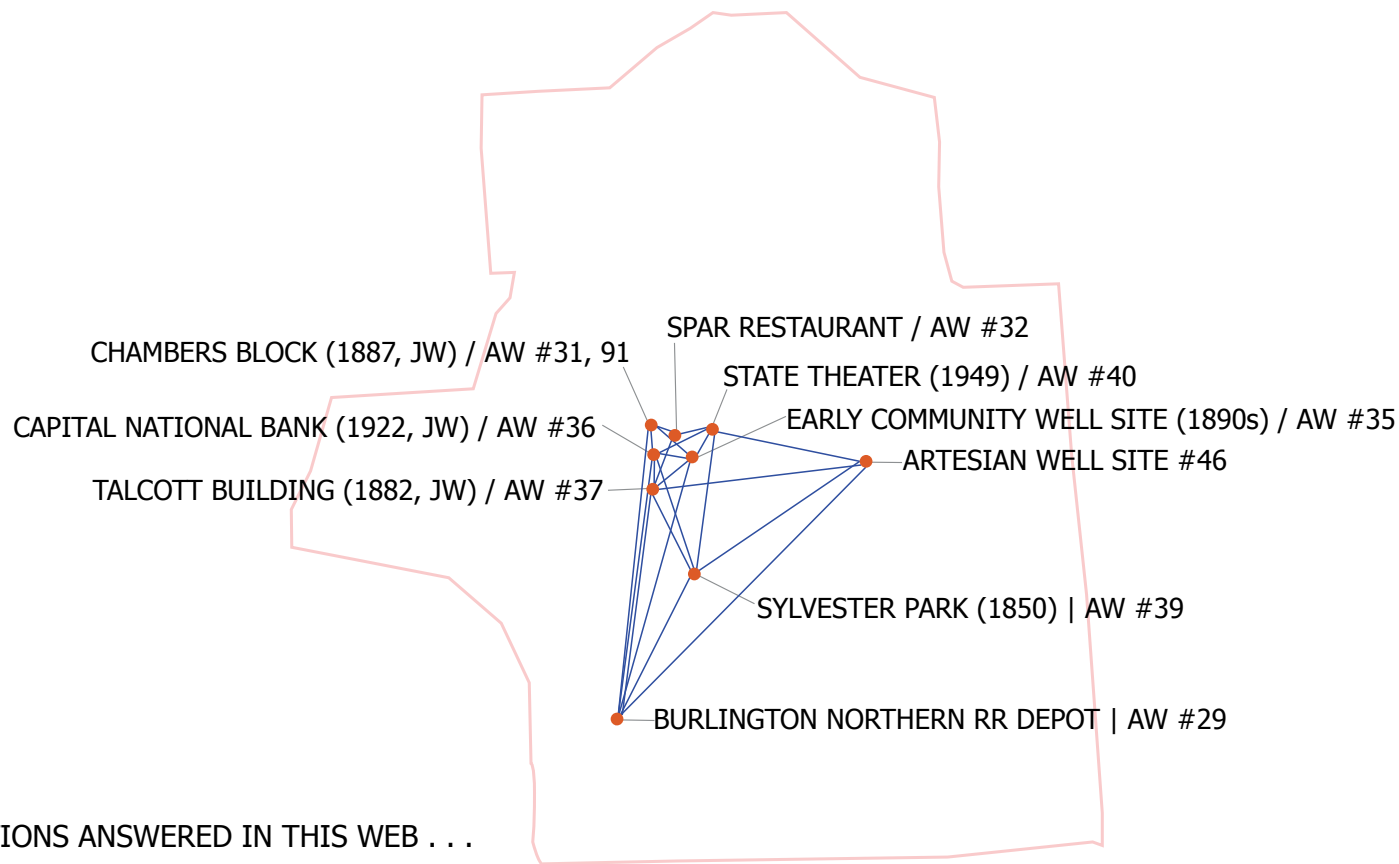


Figure 169. Conceptual graphic of “Historic Olympia” interpretive web. This web integrates an existing tour of historic architecture in Olympia with the story of the artesian wells. Participants visit historic buildings as well as historic well sites linked to Olympia’s early development.



- Which is the first documented artesian well?
(AW #37 dug for Talcott’s Jewelers, first built in 1882; it still exists as a staff water fountain)
- Which artesian wells remain accessible within buildings? (AW #37 - Talcott, AW #32 - Spar Restaurant)
- Which buildings were designed by architect Joseph Wohleb? (Chambers Block, Capital Natl. Bank, Talcott Building)
- Which sites are on the National Register of Historic Places? (Sylvester Park)
- Which sites are on the Washington Heritage Register? (Sylvester Park, Capitol Theater)
- Which buildings are on the Olympia Heritage Register?
(Sylvester Park, The Spar Cafe, Chambers Block, Talcott Building)

Historic site status data found at: Olympia Heritage Commission. Downtown Olympia’s Historic Resources. [Olympia: Wash.]: The Heritage Commission, 1984.

Figure 170. “Historic Olympia” interpretive waypoints.

02.03 A NEW PUBLIC SPACE NETWORK FOR OLYMPIA

The final design proposal at the network scale is development of a new public space system featuring free-flowing artesian water. This revised vision of Olympia's civic space includes three entirely new public spaces in Olympia's downtown core and two revised park spaces, all linked by the concept and presence of free-flowing artesian water. Four new sites are located in the central downtown district (Artesian Wells #22, 46, 82, and 39) while one connects to Capitol Lake and the existing Heritage Park (Artesian Well #39). Each site will provide enhanced public space for the many residents and visitors expected in the city's downtown residential density plans. (Figure 171)



Figure 171. Proposed new public space network. (New proposed public spaces indicated in yellow with well numbers. Existing public space indicated in green.) (Base image: Puget Sound LIDAR Consortium)

A NEW PUBLIC SPACE NETWORK FOR OLYMPIA: PROPOSED SITES



Figure 172. Artesian Well #22 (2013).
(Image by author)

WELL SITE #22 – PROPOSED FOR “STRATIGRAPHY PLAZA”

Well Site #22 is located on a block bounded by Washington Street NE, Franklin Street, Thurston Avenue NE, and Olympia Avenue NE. It is located in a privately owned 0.17 acre parking lot. Water flows at approximately 1.0 gpm. People regularly collect water here, but the site is not approved for drinking water and the water is not monitored for contaminants. Nonetheless, it is a popular gathering place: indigents and homeless gather at this site to socialize and drink on a daily basis. The site is adjacent to a publicly owned asphalt parking lot measuring about 1/3 of an acre. It is also adjacent to Olympia’s public transit center to the south, which welcomes a steady stream of bus commuters throughout the day.

If purchased by the city, this site has the potential to become a large downtown public open space. The design could extend into the unused open lawn adjacent to the bus station, creating a sizable space for large events, festivals, or green space. If monitoring in the future were to determine that the water quality at the well site is compromised, the artesian water could be used as a water feature. Based on initial research, it appears that social narratives at this well site lack the depth found in many other spaces in the proposed network. Instead, exploration of ecological issues drive the design of this new public open space. Concepts of artesian water in relation to geologic time, subsurface stratigraphy, Puget Sound geology, human land alteration, and hydrology could shape the design at this site. (Figures 172 through 174)



Figure 173. Artesian Well #22 context aerial image; property outlined in red. The dotted line indicates the proposed plaza (public space) boundaries. The property to the south is Olympia's Intercity Transit Center. (Base image: Google maps)



Figure 174. Homeless gathered around Artesian Well #22 (2013). The arrow indicates the current well location. (Image by author)

WELL SITE #46– PROPOSED FOR “FRIENDS OF ARTESIANS” PLAZA (FOA PLAZA)



Figure 175. Artesian Well #46 (2013).
(Image by author)

The most significant artesian well site in Olympia is #46. Located in a former Diamond parking lot at the 400 block of 4th Avenue, this well currently draws the most users because of its convenient, central downtown location and easy accessibility. Water flows continuously from this well at 10 gallons per minute (gpm) from a freestanding 1.8 inch diameter pipe. When the water is not collected by users, it drains directly into an adjacent stormwater catch basin. Well Site #46 is the only publicly-owned free-flowing artesian well that is also an approved public drinking water source. Prior to approving the well, the Office of Drinking Water, Washington Department of Health (DOH), required an investigation into its condition to confirm (1) “aquifer confinedness” and (2) that the water source could be protected from future contamination (the well was constructed sometime between 1895 and 1915) (Romero 1997). In 1997, the city contracted with hydrogeologist Nadine L. Romero whose investigation demonstrated that the well met all criteria required by the State. Water at this site has been carbon-dated to at least 1600 years ago (PGG 2005, 10). The roughly ½ acre site surrounding the well is situated on fill soils placed here during Olympia’s early shoreline development. The site housed a railroad depot until 1949 and the soils beneath the parking lot are likely to be contaminated, although conclusive testing has not been conducted.

This site is culturally and historically significant as the focus of years of public battles over artesian water access. Olympia residents have collected water at this site for several decades, and a recent conversation with a DOH drinking water engineer revealed that an estimated 200 people per day, or 6000 per month, still gather water at this site (Anderson 2013). Today the parking lot is city property,

and a small pocket park surrounds the artesian well pipe. This site is now the focus of a new city park proposal, as was discussed in Chapter 3. Redesign of this critical site is the central design focus of this thesis. As the heart of the battle for artesian water access, Artesian Well #46 carries layers of social narrative about Olympia and its people that must be acknowledged and celebrated. The proposed design can be found in Section 3 of this chapter. (Figures 175 through 177)



Figure 176 (top right). Artesian Well #46 context aerial image; property outlined in red, well in blue. (Base image: Google maps)

Figure 177 (right). View of Artesian Well #46 site, looking south (2013). The arrow indicates the current well location. (Image: Google street view)





Figure 178. Artesian Well #82 (2013).
(Image by author)

WELL SITE #82

PROPOSED AS AN ADDITION TO “FRIENDS OF ARTESIANS” PARK (FOA PARK)

Well Site #82 is located in a public alley on a block bounded by 4th Avenue E, 5th Avenue SE, Jefferson Street SE, and Adams Street NE. The alley connects to the east to Olympia City Hall and to the west toward the parking lot with Well Site #46. Water flows from a metal pipe at the west end of the alley into a flexible PVC pipe, draining directly to the stormwater system. The flow rate is approximately 5-10 gpm. The well location offers significant potential as a future collection site for frequent water users (public property near an important historic well site, adjacent to a city street). However, at present (2013) water from Well Site #82 has not been certified by the Office of Drinking Water of the State of Washington.

The design proposal for Friends of Artesians Plaza integrates Well Site #82 into the plaza. Assuming that water quality meets public health standards, the proposal converts this well into the central water collection site for “heavy” water users. The site offers close vehicle access and therefore preserves Well Site #46 for pedestrian use as the centerpiece of Friends of Artesians Plaza.



Figure 179

Figure 179 (left). Artesian Well #82 context aerial; alley outlined in red, well in blue. (Artesian Well Site #46 outlined in dotted red at left of image) (Base image: Google maps)

Figure 180 (bottom left). View of Artesian Well #82 at point of emergence, looking east down alley (2013). (Image by author)

Figure 181 (bottom right). View of Artesian Well #82 at point of discharge, looking west down alley (2013). (Image by author)



Figure 180



Figure 181

WELL SITE #39 – SYLVESTER PARK ENHANCEMENT

Well Site #39 is located in historic Sylvester Park, which is bound by Legion Way SE, Washington Street SE, 7th Avenue SE, and Capitol Way S. It is proposed that this historically significant well be uncapped and directed into a new fountain that honors the original role of artesian water in this site. The historic Thurston County Courthouse that later served as the State Capitol is located across the street to the east. The Richardson Romanesque building was designed by Willis Ritchie and built in 1891-92. It was later expanded and served as the State Capitol for many



Figure 182. “Sylvester Park Pond,” Robert Esterly, 1905-1915. (Image: Washington State Archives, Digital Archives, <http://www.digitalarchives.wa.gov>, accessed 5.8.2013.)

years. The building and park are listed on the National Historic Register (Olympia Heritage Commission 1984). The exact well location is uncertain; it is capped below grade, but it is believed to be in the northeast corner of Sylvester Park, 6 to 8 feet east of an existing planting container. General Administration staff members have indicated that “one, or perhaps two, artesian wells were located in Sylvester Park and were used to run fountains” (Robinson & Noble 1999, 8). (Figures 182 and 183). Sylvester Park has a rich history that is overlooked in the public sphere, much like the artesian well.

“The square was designated on the 1850 plat of the town of Olympia made by Edmund Sylvester, its founder . . . Like many of the early settlers on Puget Sound, Sylvester was a New Englander and brought this heritage to bear on the future of the town by utilizing the town square idea in his plat for the town. . . In the early years the public square was mainly a grazing spot for the town’s livestock. During the Indian Uprising of 1856 a wooden blockhouse was built on the square which was large enough to hold the entire village of Olympia. After the Indian scare the structure was used as the city jail and later torn apart to plank town streets” (Olympia Heritage Commission 1984, 24).



Figure 183



Figure 184



Figure 185

Figure 183 (top left). "Old Capitol Building," 1900-1920, photographer unknown. (Image: General Subjects Photograph Collection, 1845-2005, Washington State Archives, Digital Archives, <http://www.digitalarchives.wa.gov>, accessed 5.9.2013)

Figure 184 (top right). Sylvester Park and the historic Capitol building, looking east, 2013. (Image by author)

Figure 185 (left). Aerial context image of Sylvester Park (2013). Original artesian well site #39 is circled in red. (Image: Google maps)

WELL SITE #29

PROPOSED “BURLINGTON NORTHERN HISTORIC RAILROAD & ARTESIAN WATER PARK”

Well Site #29 is another historically significant artesian well. This well site is located between Columbia Street SW and Powerhouse Road SW, next to Capitol Lake. The 1.08 acre property is now owned by Washington State Department of Enterprise Services. The location is significant because further development of the artesian well could complement architects White and Wilder’s original 1911 Capitol Campus Plan. Their Master Plan envisioned a continuous vista linking the Capitol Campus above the Deschutes Estuary (now Capitol Lake) to the Olympic Mountains and open water of south Puget Sound (Olympia Heritage Commission 1984, C-2). (See Image) Well Site #29 is located along this historic vista but is currently inaccessible as the site is surrounded by chain link fence. Water flows from Well Site #29 at 20-50 gpm. The water was once used to fill a water cistern serving steam engines at the Northern Pacific Railroad depot. The depot building and a water cistern both remain on the site today (Robinson & Noble 1999, 6). This artesian well and the historic depot building could be integrated more gracefully into Heritage Park and the Wilder and White vision, while also celebrating history and ecology. From an ecological perspective, it is significant that this well is adjacent to the ultimate confluence of Olympia’s artesian water and the marine waters of Puget Sound. Currently the artesian water drains through dense invasive brush and remnant woodlands into Capitol Lake, either by way of subsoil or pipes. This site presents yet another good opportunity to celebrate culture, history, and ecology.

Figure 186. “Bird’s Eye View of Olympia, Wash., ‘The Capitol City,’” 1927, photographer unknown. The red arrow indicates well location. (Image: General Subjects Photograph Collection, 1845-2005, Washington State Archives, Digital Archives, <http://www.digitalarchives.wa.gov>, accessed 5.9.2013.)

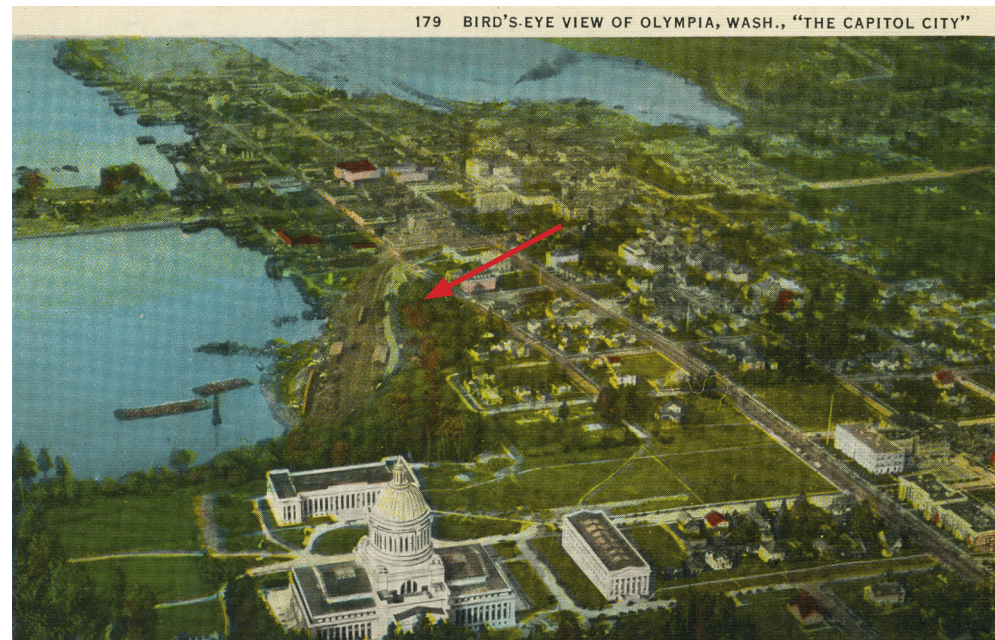




Figure 187 (top left). Aerial context map of Artesian Well #29. The red arrow indicates the general well site location. Capitol Lake and Heritage Park are visible to the left of the railroad tracks. (Image: Google maps).

Figure 188 (top right). Old train depot and artesian well site location, looking north towards the state Capitol Buildings (2013). (Image by author)

Figure 189 (left). A chain link fence separates the site from Heritage Park and Capitol Lake. View looking north towards the state Capitol Buildings (2013). (Image by author)

03.00 FINAL DESIGN INTERVENTION: DEVELOPMENT OF A SITE - FRIENDS OF ARTESIANS PLAZA

The design of one site within the proposed public space network allows an opportunity to explore the potential of melding artesian water and public space design. Well Site #46 has a rich history as the centerpiece of decades of public advocacy and as a popular artesian water collection point, as was described in Chapter 3 (03.00). The site is designed to create a memorable place that also provides a foundation for community-building and storytelling. The new plaza is named “Friends of Artesians Plaza” to honor the community advocates who helped to preserve public access to artesian water in Olympia. The name also recognizes the many future friends of artesian water who will gather at the proposed plaza.

By emphasizing flexibility in form and spatial arrangement, the design aims to encourage evolution of the site as needs and interests change. The design provides a plaza, a water collection point, an urban playground, a storytelling vessel, and fundamentally, a tribute to the story of artesian water in Olympia. Adaptable space, opportunities to touch and collect the water, multi-functional form, an emphasis on play and discovery, and expression of historic and community narratives form central elements of the proposed design.

Figure 190. at right, illustrates the guiding framework for site design.

DESIGN GOALS | PROGRAM

DESIGN STRATEGIES

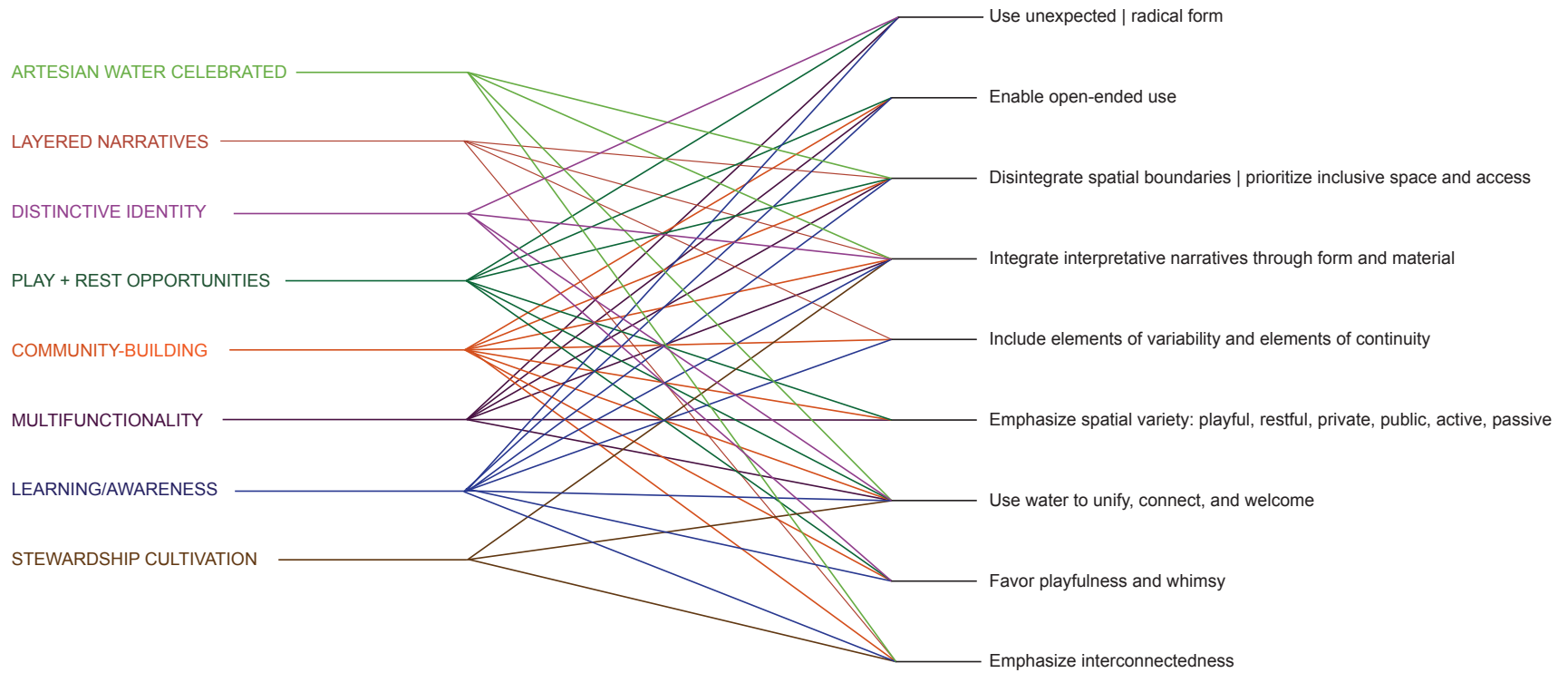


Figure 190. Site Design Framework

03.01 SITE CHARACTERISTICS

Artesian Well #46 is located in an asphalt parking lot owned by the City of Olympia since 2010. The lot is bound to the north by Fourth Avenue East, to the south by Fifth Avenue SE, to the west by Adams Street SE, and to the east by Jefferson Street SE. (Figure 191) The site is shaped roughly like two rectangles that meet midway across the site. The site measures 250' across from north to south and 270' across from east to west, including the sidewalk on the east side of the block. The narrowest part of the site spans 70' across between the two existing buildings on the block. (Figure 192) The structure on the west side of the block is a former outdoor equipment store, currently empty. The structure on the east side of the site is a bar. Access to Artesian Well #46 is currently located about 18' from the southwest corner of the bar building. The site is accessible from all four sides, with vehicle access via driveways on each of Fourth Avenue E, Jefferson Street SE, and Fifth Avenue SE.



Figure 191. Site context aerial image.
(Base image: Google maps)

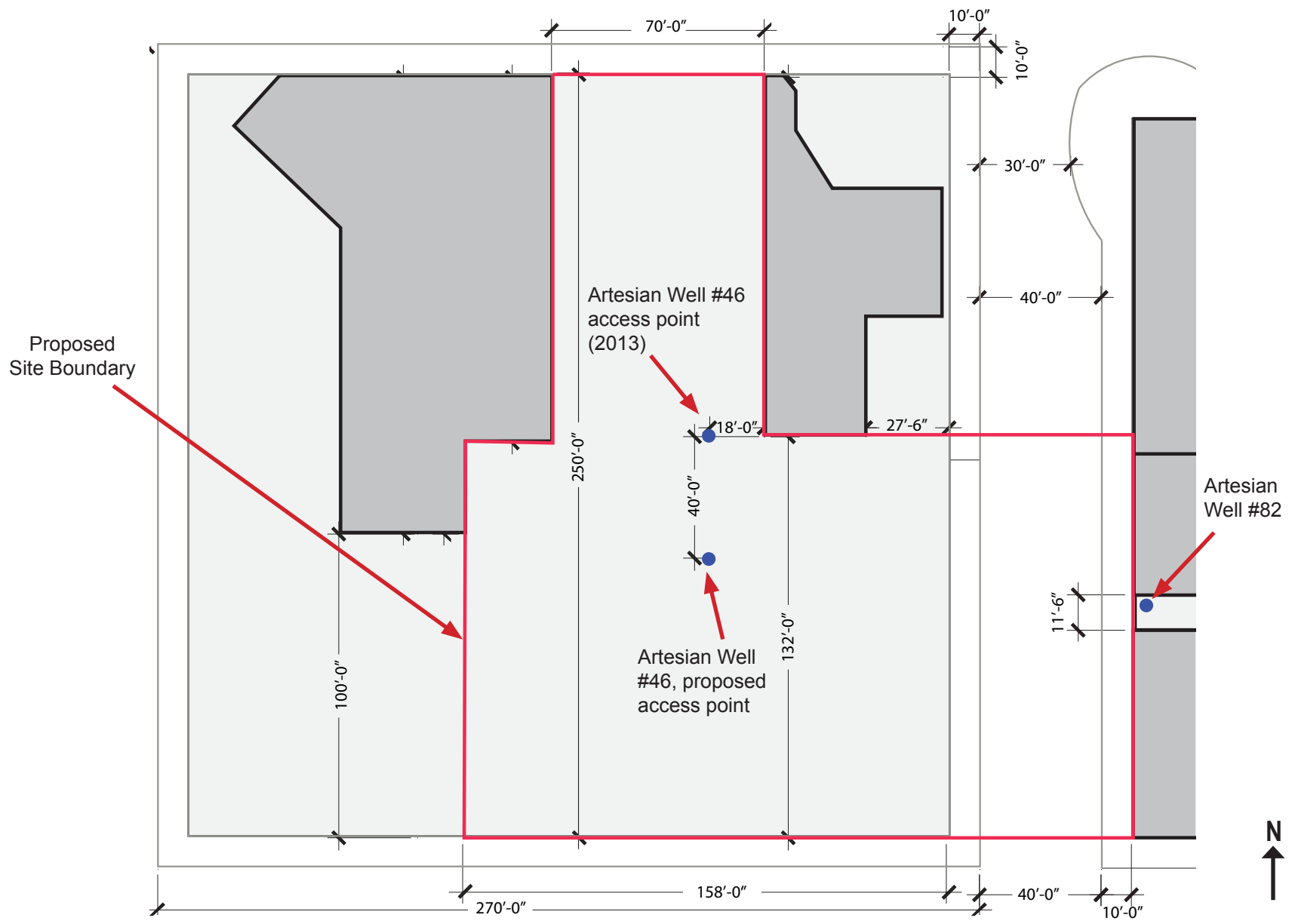
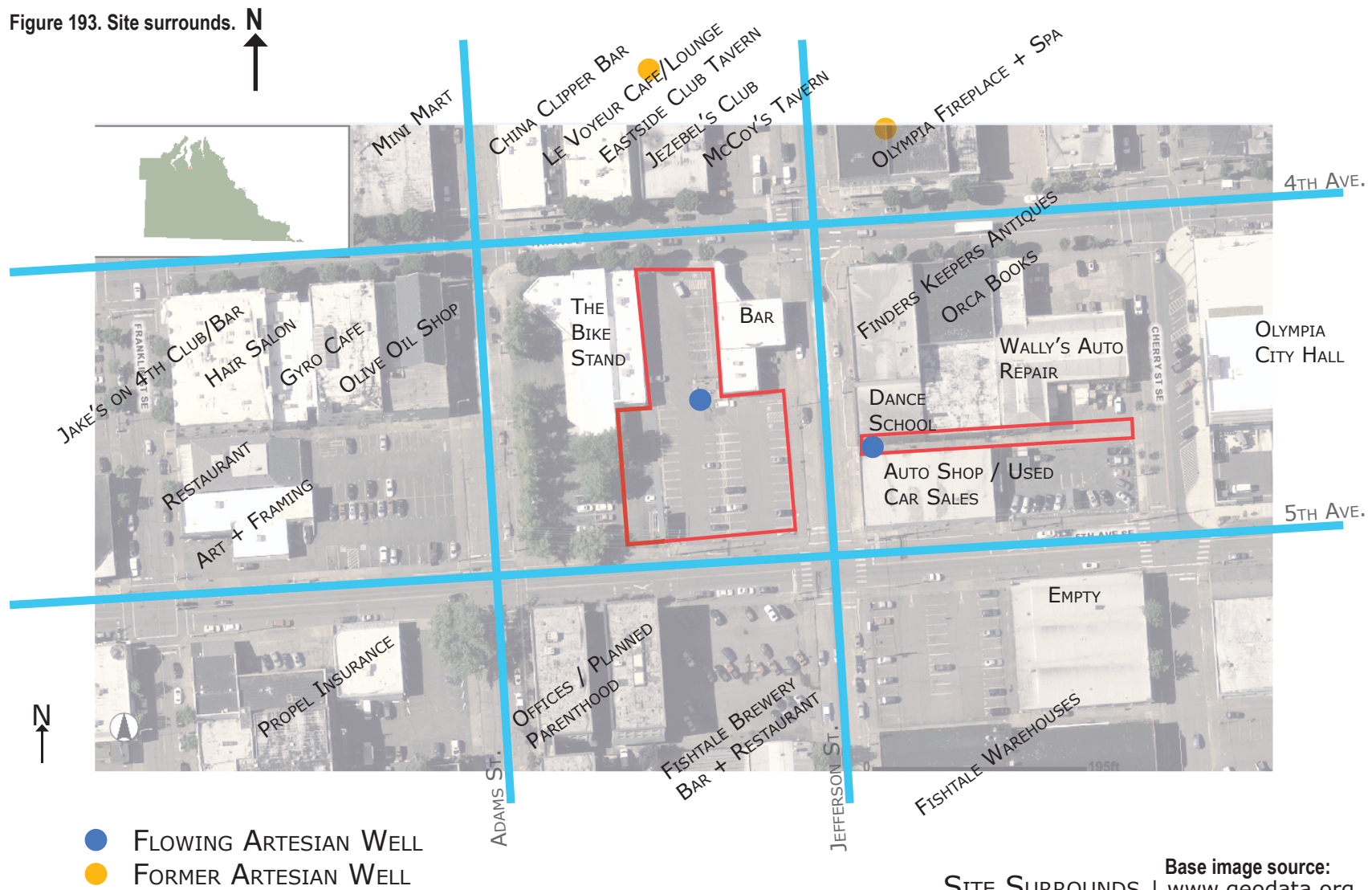


Figure 192. Site dimensions

Figure 193. Site surrounds. N



The property is surrounded by shops, bars and restaurants to the north and east, and office buildings and parking lots to the south and west. (Figure 193 above)

Figure 194. Site topography



The site topography involves minimal grade change, as can be seen in Figure 194 above.



Figure 195. Existing project site, looking north towards Fourth Avenue E
(Image by author)

Figure 196



Figure 197



Figure 198



Figure 199



Figure 196 (top). Project site, looking east towards Jefferson Street SE. Artesian Well #82 is located in the alley indicated by the red arrow. (Image by author)

Figure 197 (above). View looking south through site. (Image: Google)

Figure 198 (right). View looking west over south half of the site. (Image: Google)

Figure 199 (bottom right). Looking toward the site from the southeast. (Google)

03.03 FRIENDS OF ARTESIANS PLAZA

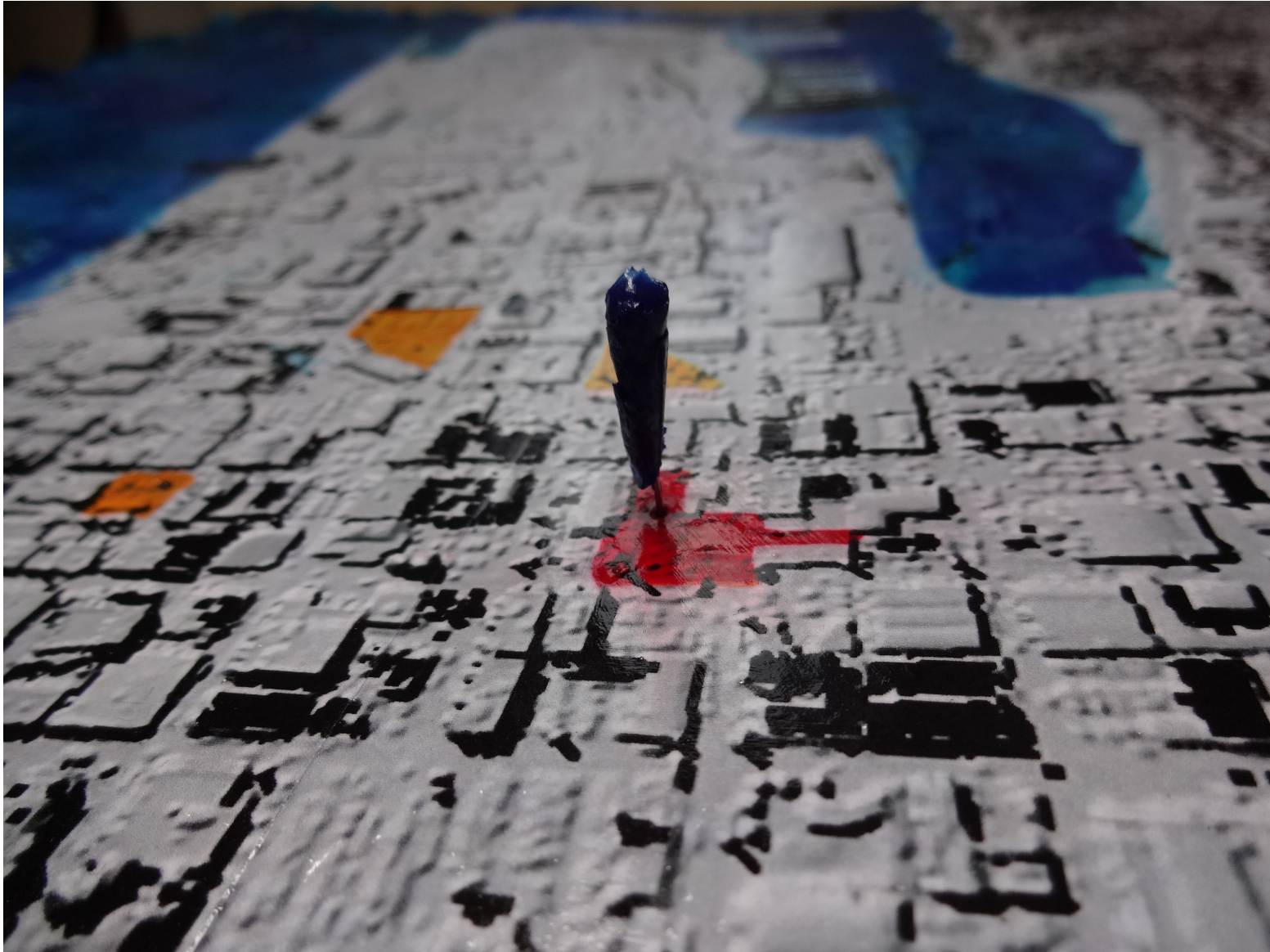
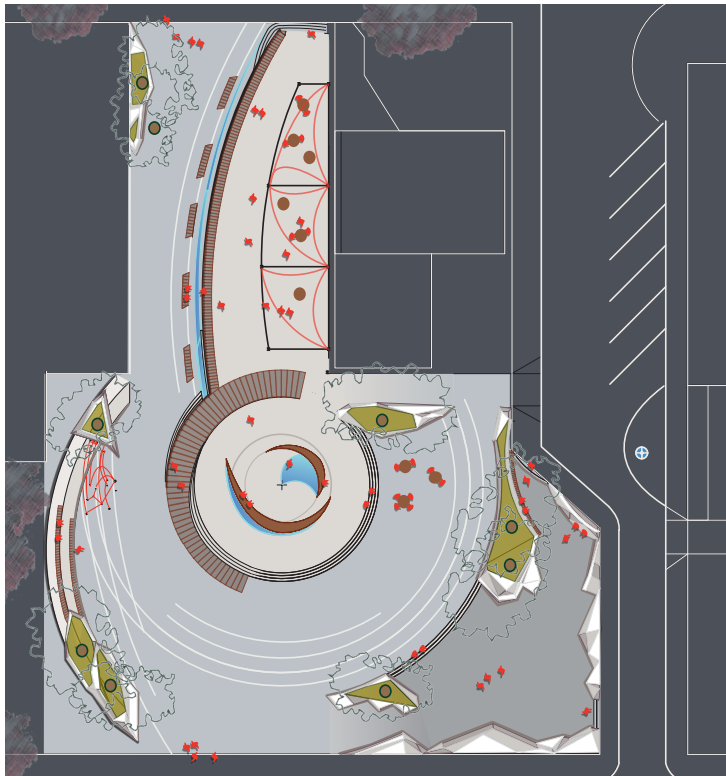


Figure 200. Project location (in red, with well marker) in downtown context, looking north. (study model by author)

SITE DESIGN: FRIENDS OF ARTESIANS PLAZA

Note: Figure 201 illustrates the basic design of the plaza. Figure 202 and diagrams on the following pages illustrate the design in greater detail.

The design of Friends of Artesians Plaza first requires unification of the site, which otherwise consists of two rectangular forms: one to the north between two buildings and a larger rectangle to the south. To achieve a single, unified site, Artesian Well #46 shifts 40 feet to the south to establish the center of the property. A two-foot high elevated plaza links the main entrance at Fourth Avenue E to the well site, which becomes the plaza focal point. The well is enclosed by two arcing benches at which people can sit facing any direction. The artesian well itself functions both as a water collection site and as an interactive water feature. After artesian water emerges from the pipe, it falls to the ground and flows into a



subtly graded pool (2" at its deepest point) that disappears into the inner edge of the eastmost bench and reemerges in a pool following the southmost edge of the second bench. This arced pool skirts the bench, disappears, and emerges once again in a long, stepped runnel that defines the west edge of the upper plaza. The length of the runnel is sculpted with different textures that reflect the journey of artesian water through the stratigraphy of the earth. The runnel steps down in elevation from the 2 foot height of the upper plaza to meet ground level at the northern tip. There, the artesian water disappears back into the ground, a moment which represents the waters natural discharge into Puget Sound. Plaza visitors can walk in, play in, touch, or - at the first point of emergence- drink the artesian water as it journeys through the site. The water is never more than two inches deep, forming a graceful, continually moving liquid skin over the varied surfaces of the water feature.

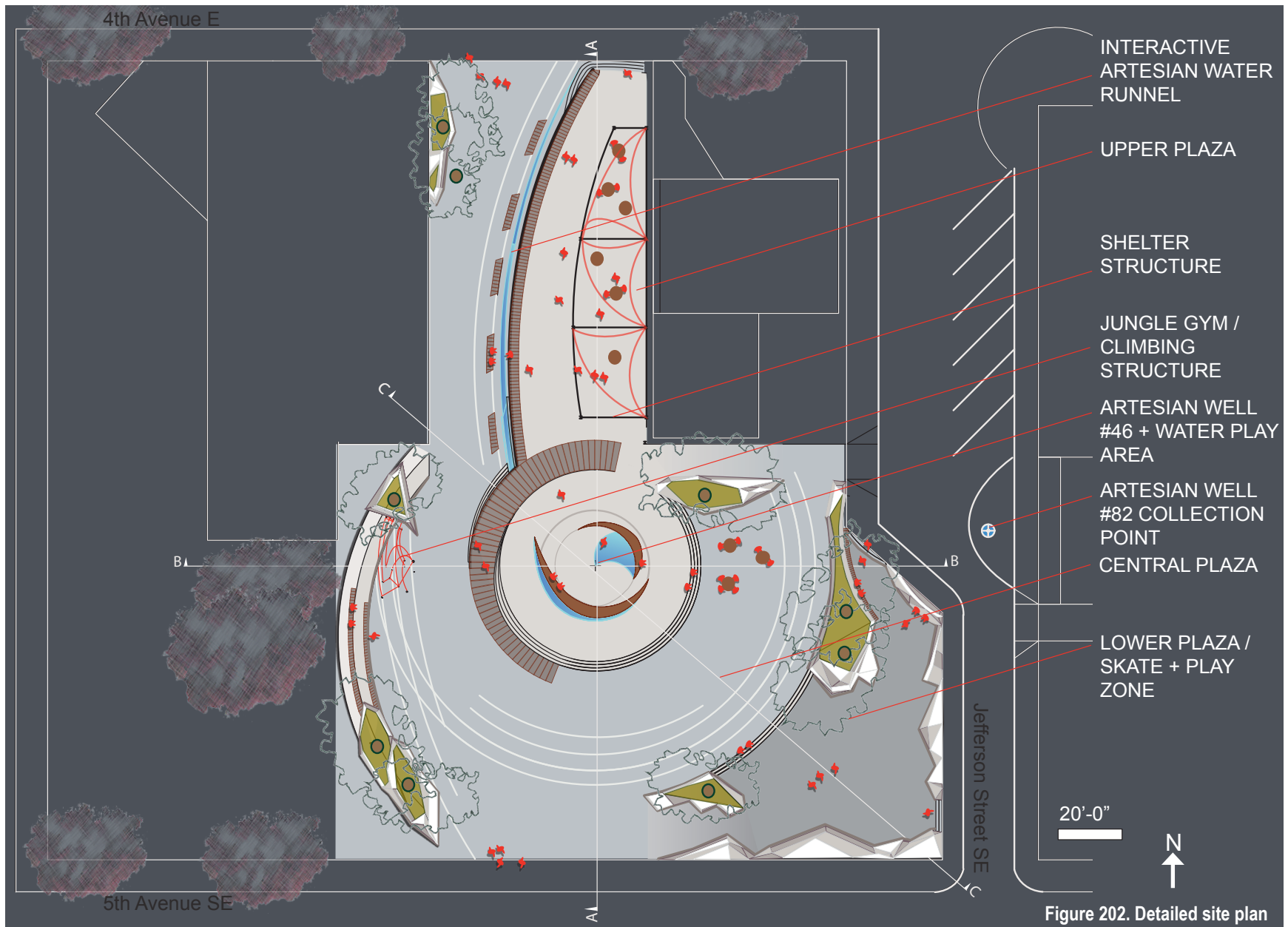
The upper plaza includes a permanent metal structure for hanging tensioned tarps or other temporary covers, lights, or artwork. The structure provides the option for

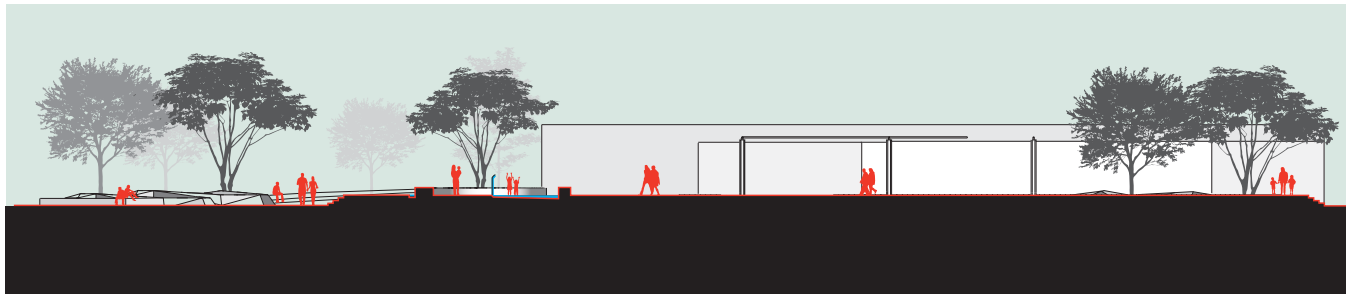
Figure 201. Site Plan

shelter from sun and inclement weather. The site has two additional levels: a middle plaza at street elevation that forms the majority of the site, and a lower plaza in the southeast corner, which sinks eighteen inches below grade to form a distinct subspace. The plaza is hardscaped with stone pavers and formed concrete to establish durable, flexible surfaces. The paving is subtly patterned to reflect the concept of artesian water continually rippling outward from the central well site. The hardscaped surfaces support a wide range of mixed uses appropriate to a downtown public plaza: temporary events like festivals, concerts, and markets, as well as regular gatherings, recreational play, and opportunities for seating and respite. Vehicles can temporarily access the site for maintenance or events via driveways leading from Fourth Ave. E, Jefferson Street SE, and Fifth Ave. SE. Throughout the site reclaimed wood is used for walking and seating surfaces. Seating elements are found along the west edge of the upper plaza, on the arced benches around the well site and runnel, and integrated into forms in the middle and lower plazas. A wooden ADA ramp sweeps along the west edge of the central artesian well site to link upper and middle plazas. Additional ADA pathways run (1) along the south edge of the eastmost building and (2) into the lower plaza from the west, making all levels of the site equally accessible for strollers, wheelchairs, and pedestrians.

The artesian water feature and the upper plaza constitute a graceful, classical gesture. As the plaza expands outward, this grace mixes with a grittier aesthetic evoking the geology of Puget Sound and the diversity of people who come to share water at the well. White concrete geometric forms scattered throughout the site reference glacial erratics. They become tree planters, seats, tables, and play structures. The geometric forms particularly encourage creative use by offering space to climb, skate, and play in ways limited only by imagination and risk tolerance. The meeting of grit and grace constitutes the aesthetic basis for a community space welcoming people of many backgrounds and perspectives.

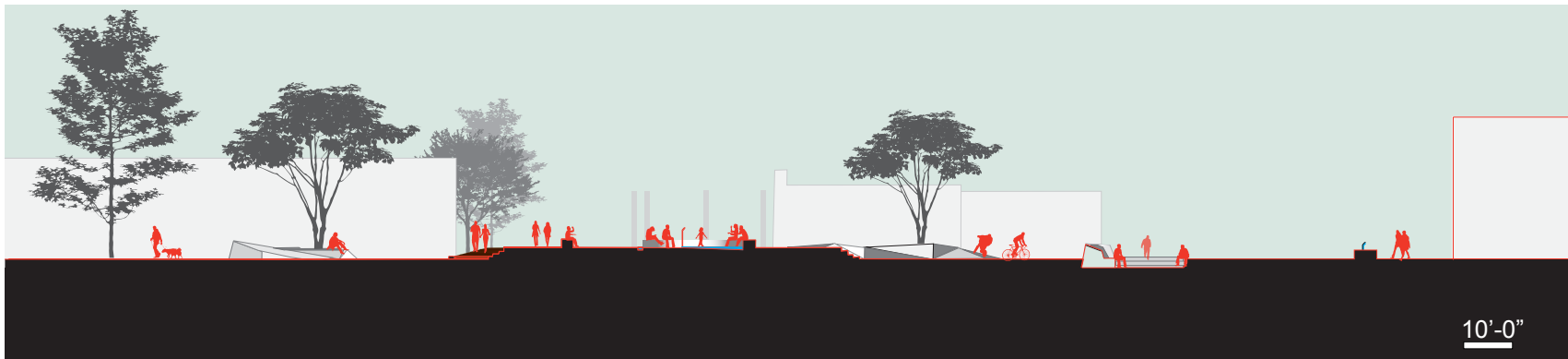
Large deciduous trees planted in several of the geometric forms will create seasonal canopies of dappled shade. Along the west face of the building bordering the upper plaza, a wall of hop vines references the rich history of Olympia beer and artesian water. The east-facing wall on the opposite structure becomes a canvas for artwork and storytelling. A sculptural map will explain the well marking system and provide orientation for site visitors. Quotes about artesian water and Olympia will mix with stencil art and murals to reflect the diverse artistic and cultural history of the site. Arced stone steps leading down from the artesian well site and into the lower plaza will also be etched with quotes about artesian water, history, and community. The site design integrates past narratives and future use to celebrate the grace of artesian water and the grace of diversity.





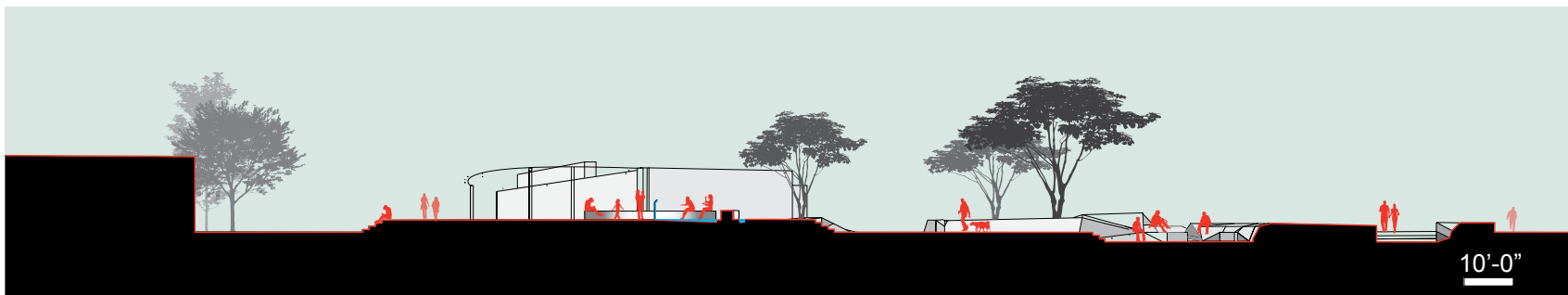
SECTION A. View west towards Adams Street SE

10'-0"



SECTION B. View north towards 4th Avenue E

10'-0"



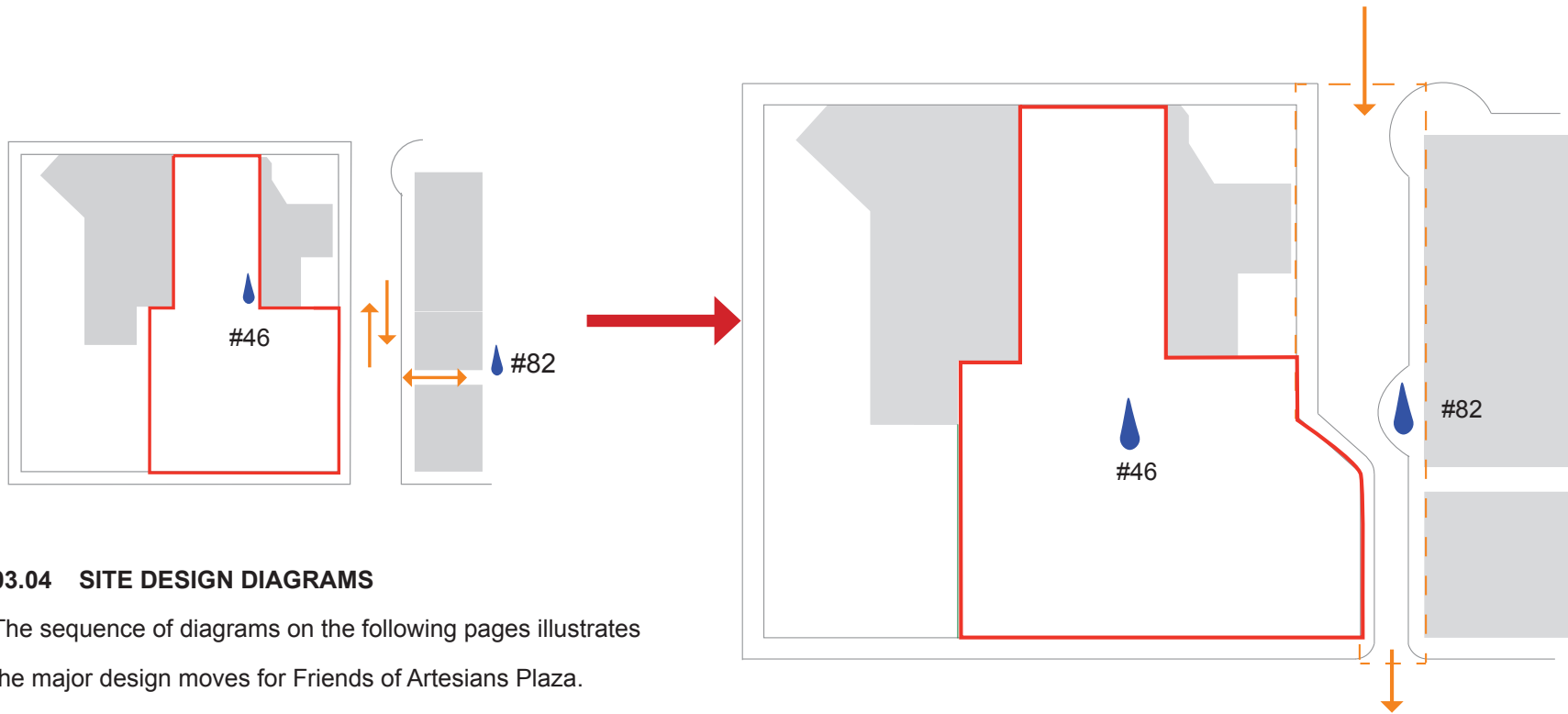
SECTION C. View northeast across plaza

10'-0"

Figure 203. Site sections

Figure 204

DIAGRAM I. STREET REALIGNMENT AND ARTESIAN WELL RELOCATION



03.04 SITE DESIGN DIAGRAMS

The sequence of diagrams on the following pages illustrates the major design moves for Friends of Artesians Plaza.

Diagram I.

- The final design proposal shifts the access point for Artesian Well #46 40 feet to the south and the access point for Artesian Well #82 from the alley to the sidewalk on Jefferson Street SE.
- A redesign of Jefferson Street SE improves access for water collection at Artesian Well #82. Jefferson Street SE becomes one-way with back-in parking along the northern half, accommodating artesian water users who need to collect large quantities of water near their vehicles. Developing Artesian Well #82 for water collection frees Artesian Well #46 to become a central element of the new plaza.

Figure 205.

DIAGRAM II. SITE UNIFICATION

Artesian Well #46 moves to the south and becomes the central feature of the new plaza.

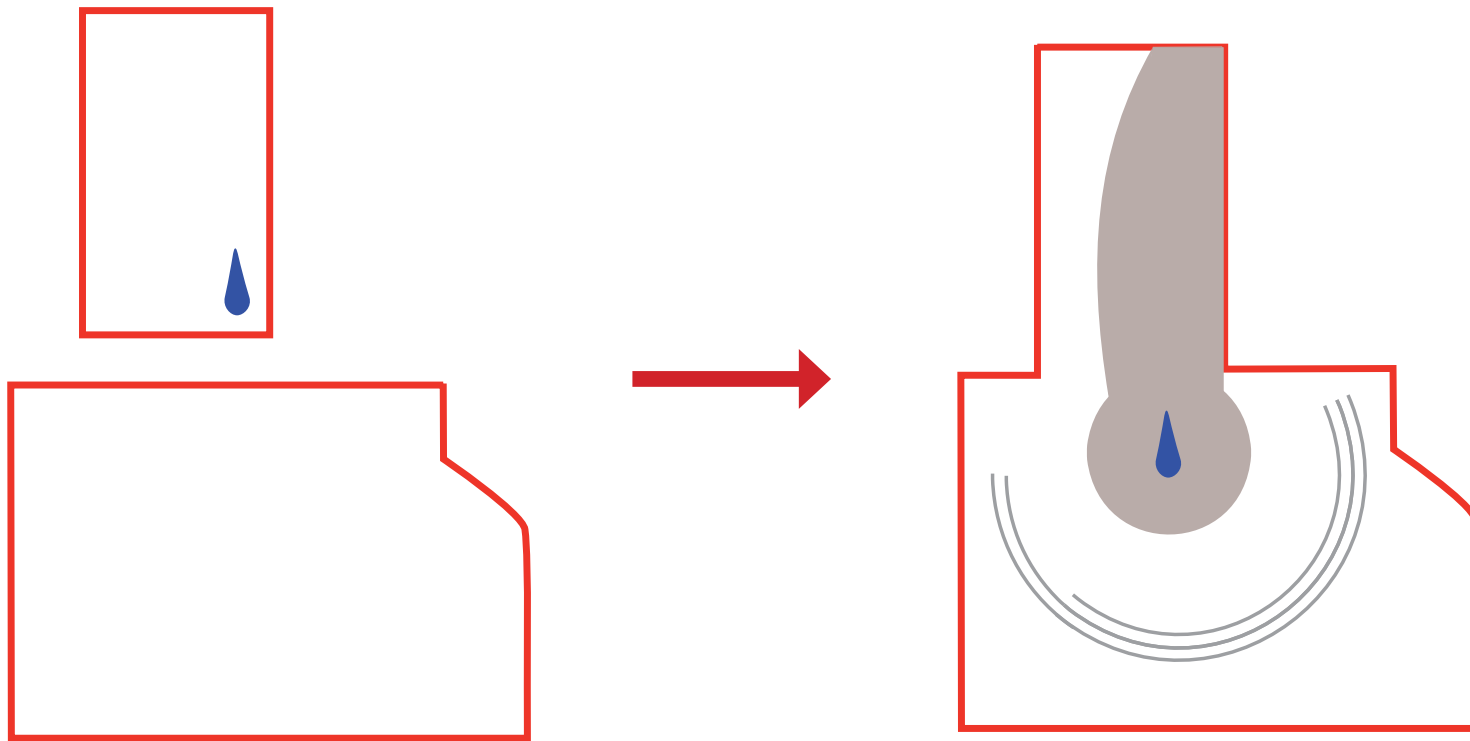
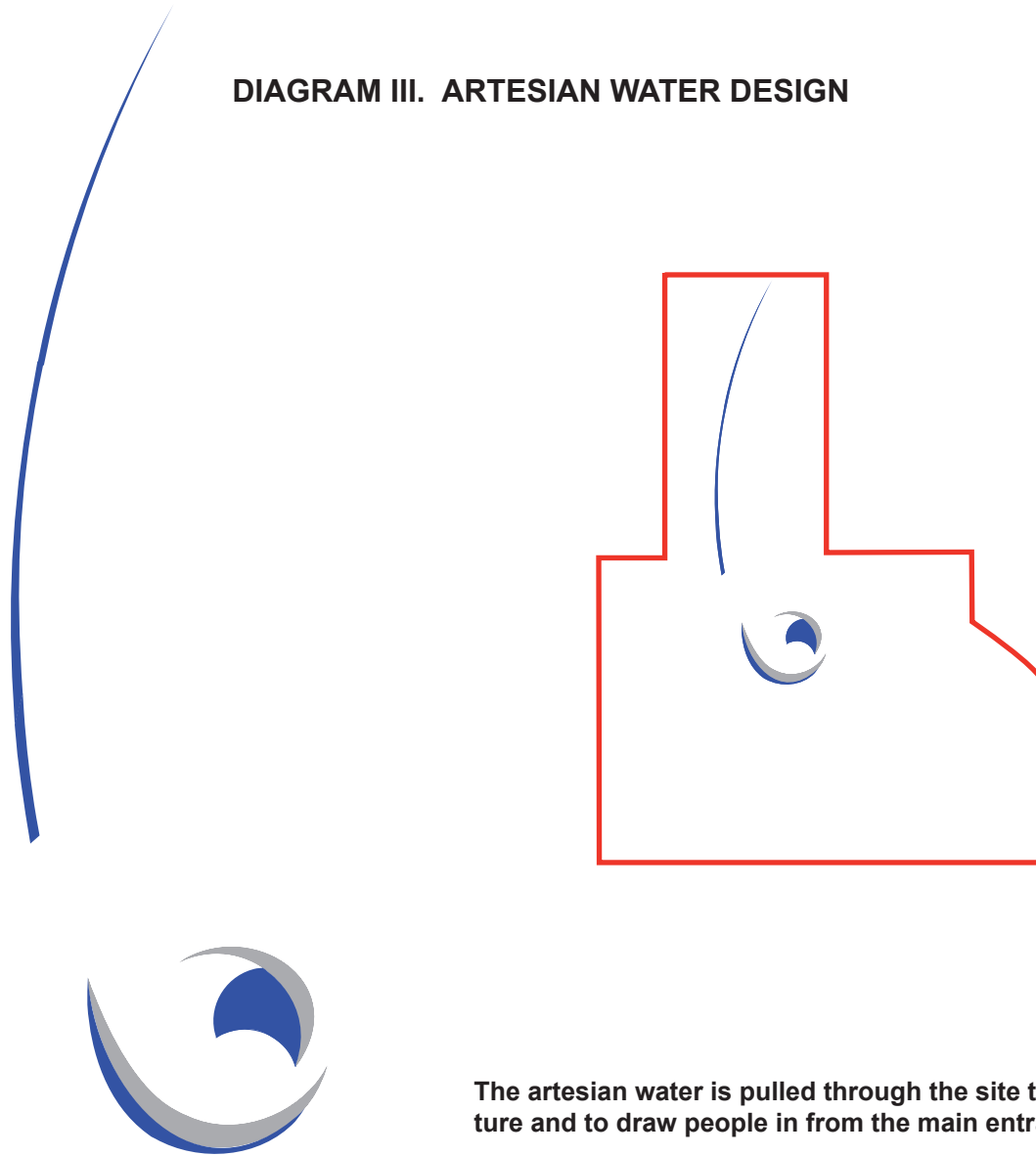


Figure 206.

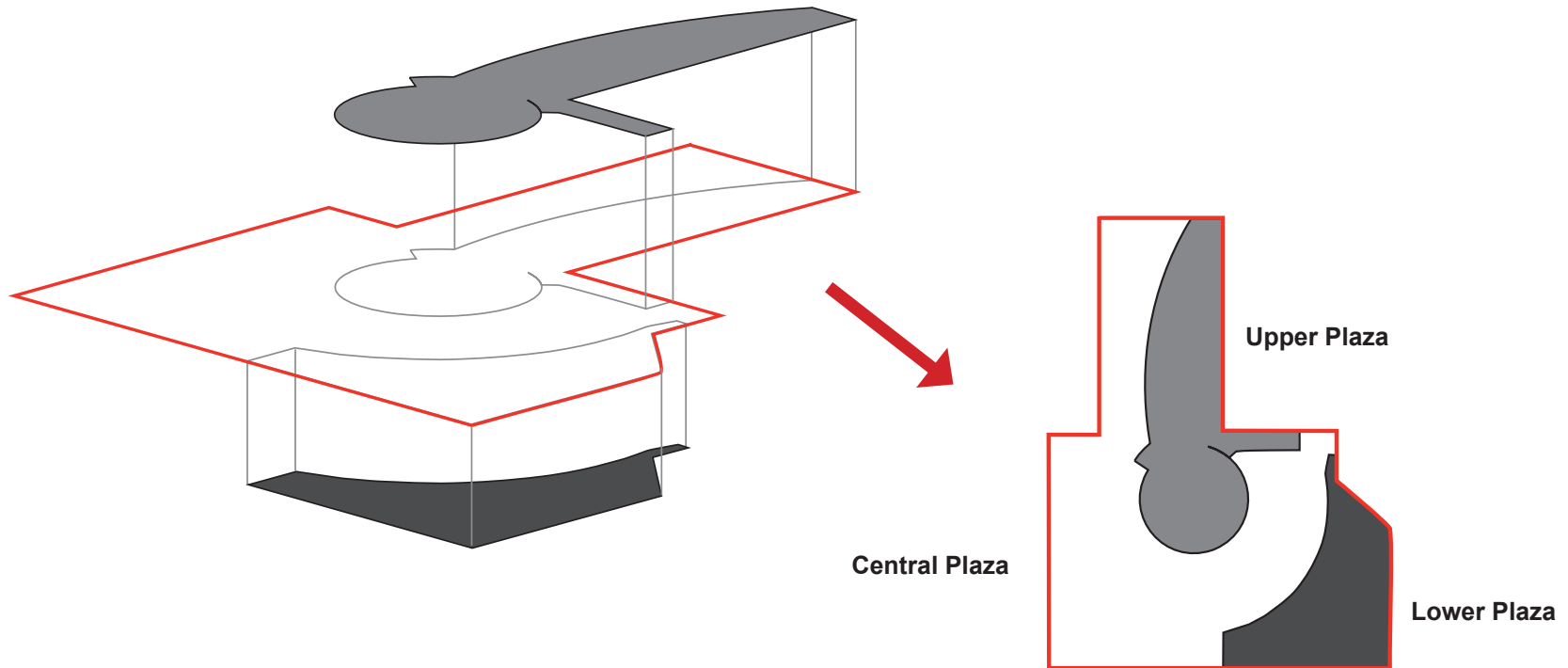
DIAGRAM III. ARTESIAN WATER DESIGN



The artesian water is pulled through the site to create an interactive feature and to draw people in from the main entrance at the north.

Figure 207.

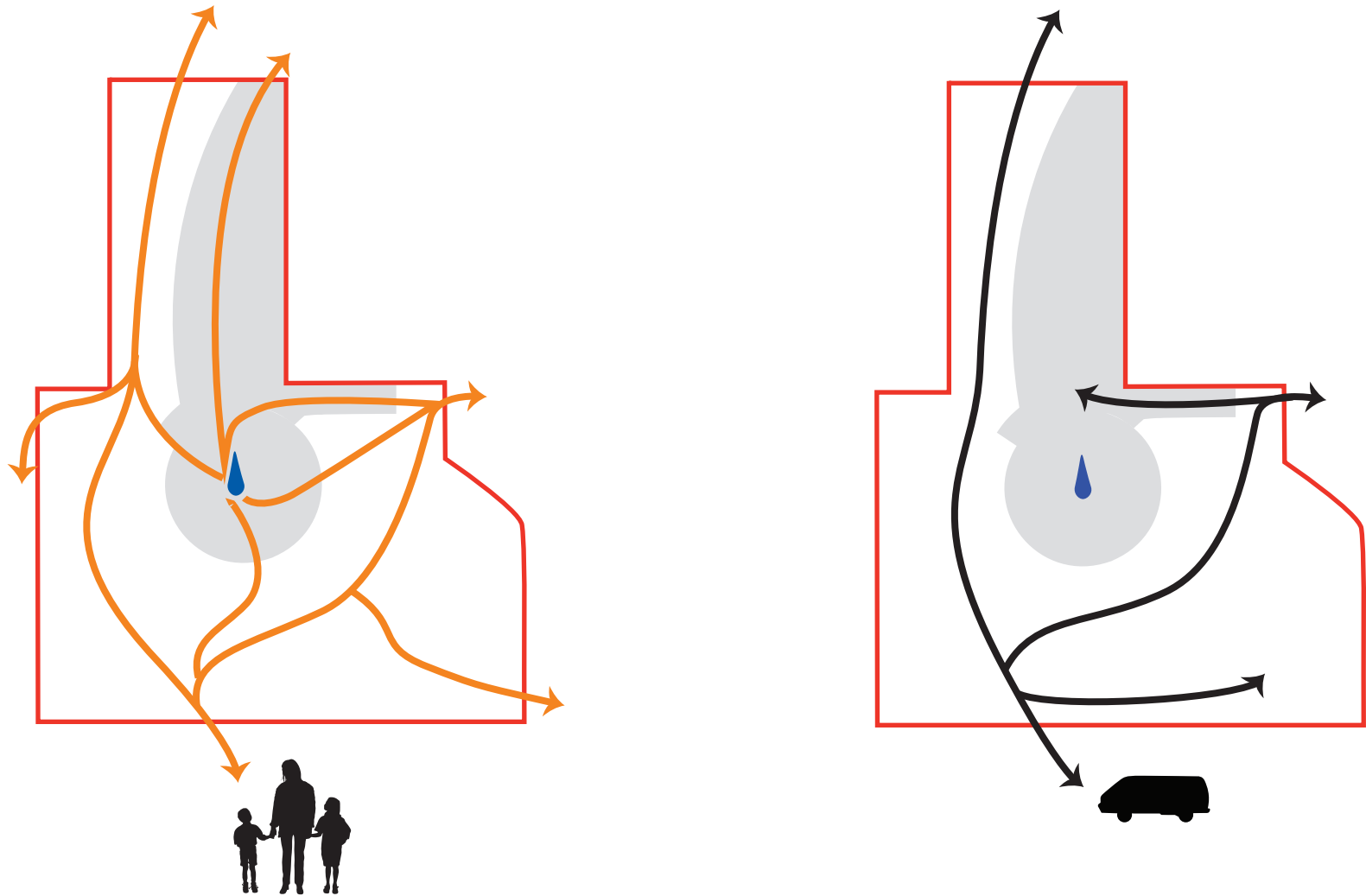
DIAGRAM IV. MULTIPLE LEVELS



The plaza includes three levels to create a range of options and experiences.

Figure 208

DIAGRAM V. SITE CIRCULATION



Pedestrians access the site from numerous locations, affording a wide range of choices. Temporary vehicle access supports maintenance and events.

Figure 209

DIAGRAM VI. STORMWATER MANAGEMENT

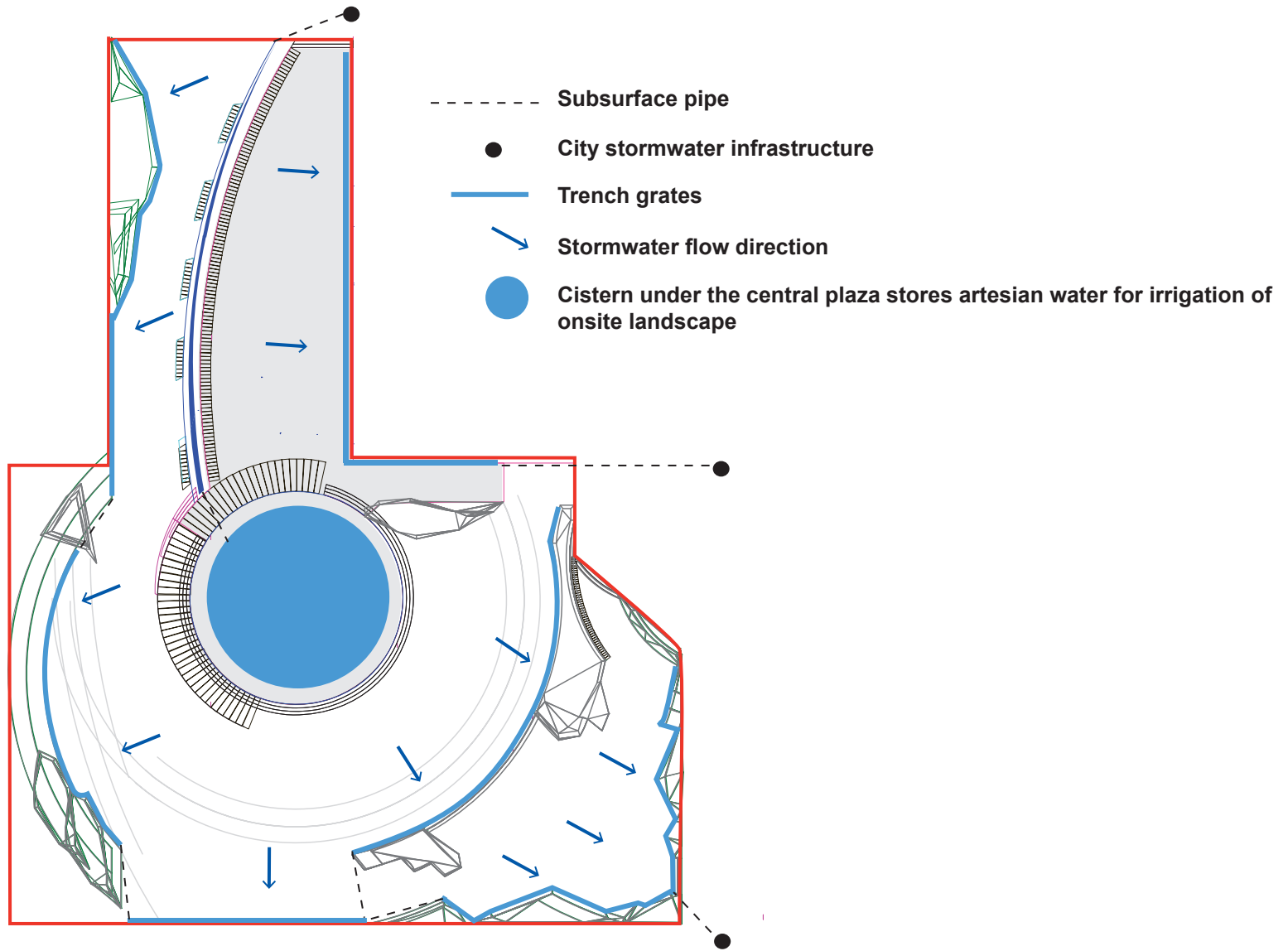
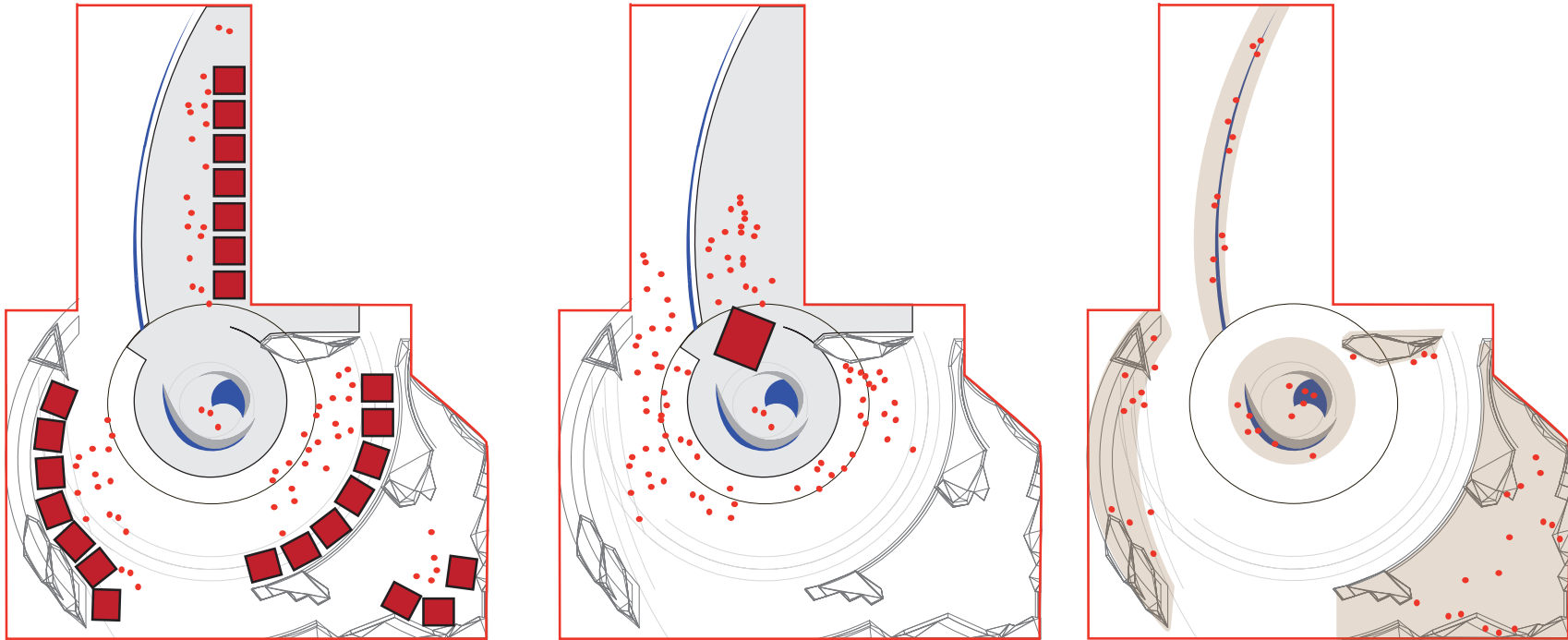


Figure 210

DIAGRAM VII. FLEXIBLE SPACE



Markets and Festivals ■

Community Gatherings ■

Play infrastructure ■

The plaza supports a wide range of public uses, including festivals and events, gatherings, and recreational activities including climbing, skating, and other forms of play.

Figure 211

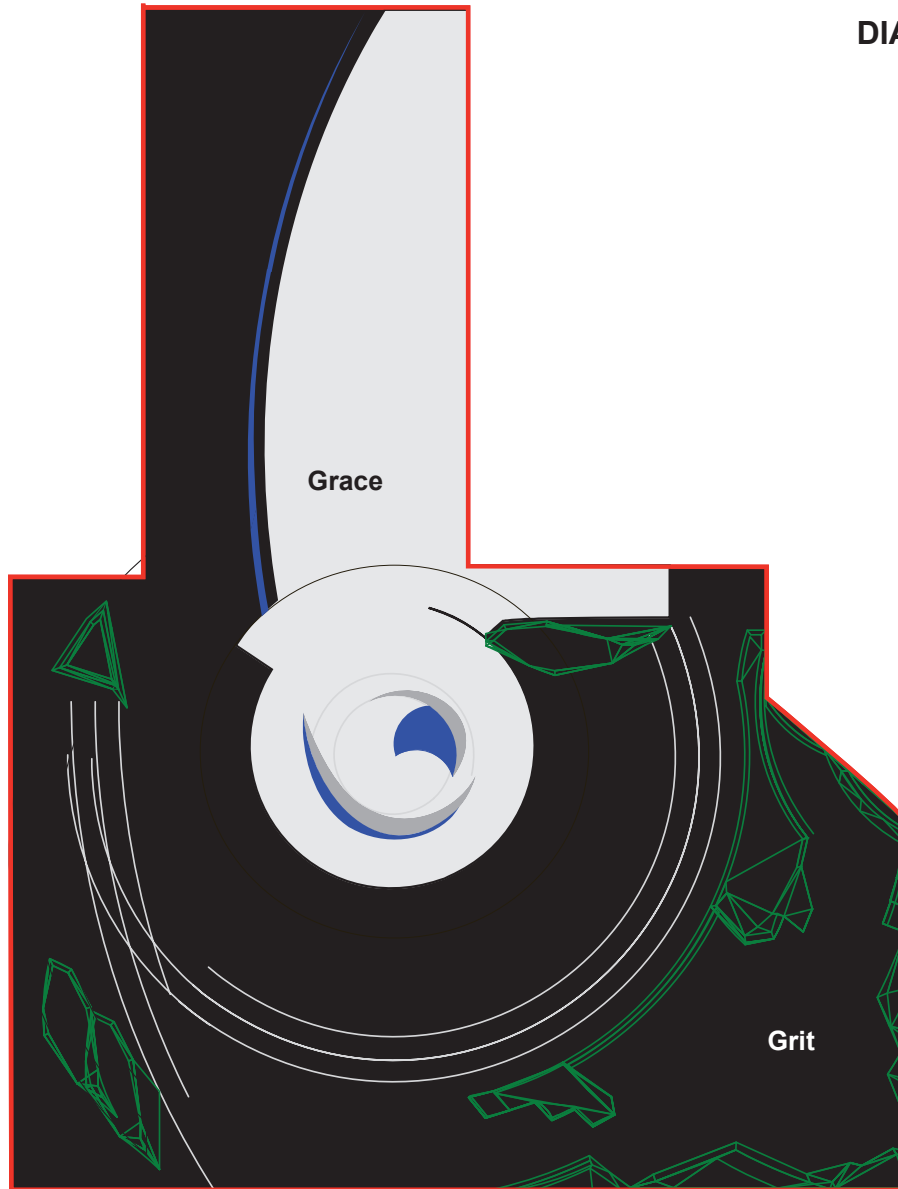


DIAGRAM VIII. THE MEETING OF GRIT AND GRACE

Two concepts embody the theoretical basis for this design: grit, and grace. Well Site #46 was the location of political protests, graffiti, temporary homeless encampments, community art projects, annual fairs, music concerts, and many other culturally significant events. The site harbors a substantial cultural and emotional charge because of these rich layers of experience. In seeming disregard for the social tumult, the artesian water continues to flow, embodying the elegance of geologic time and ecological systems. The reality of pure, clean, 1600-year-old water emerging in a politically charged downtown parking lot symbolizes a mixture of grace and grit. The gritty side of Olympia cannot be ignored to honor the grace of artesian water. The design attempts to embrace this assumed discord through form and function, to acknowledge that these concepts share common ground, and to continue to provide space for both.

03.05 SITE VIGNETTES
FRIENDS OF ARTESIANS PLAZA

Figures 212 and 213

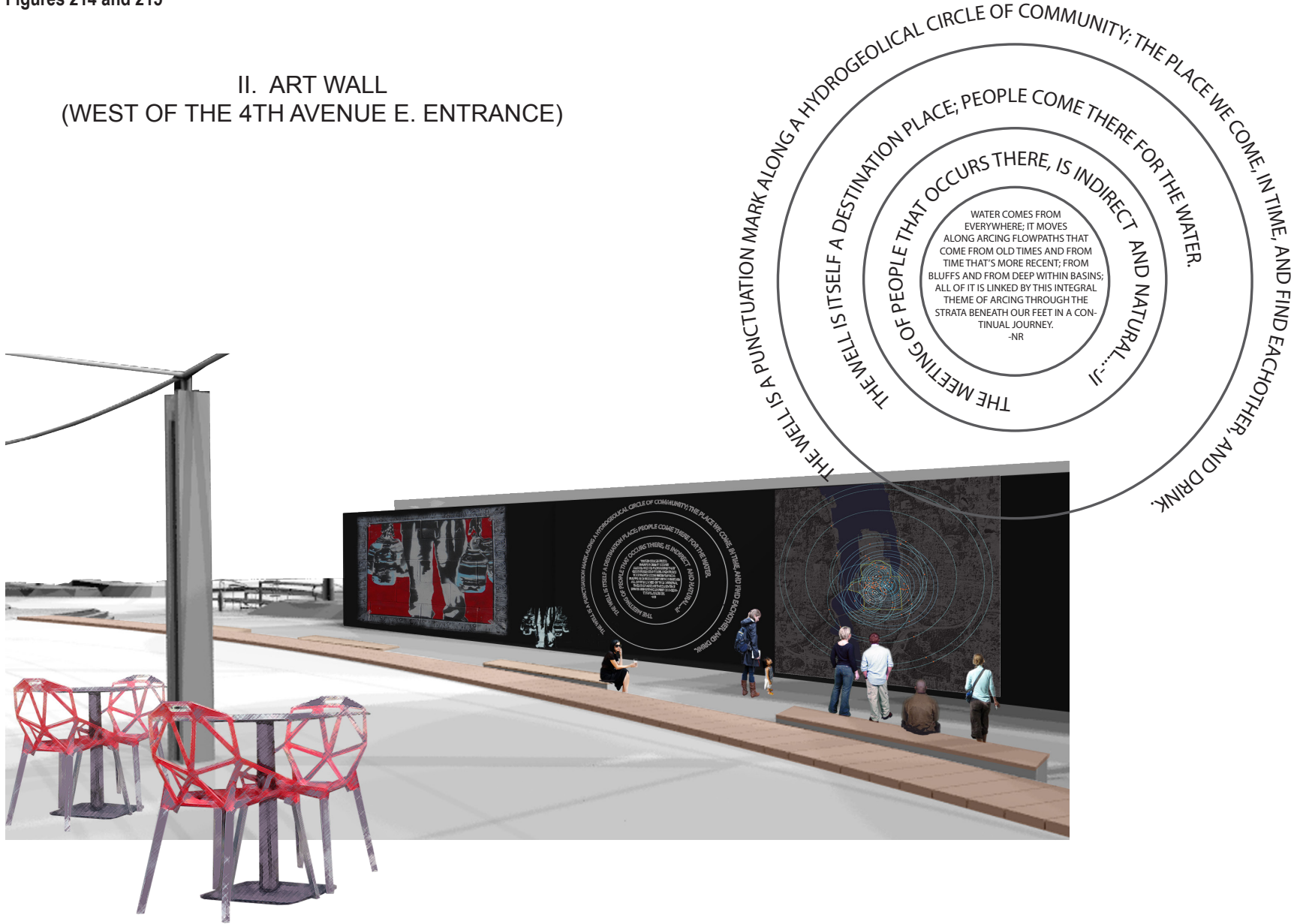
I. VIEW OF THE ARTESIAN WATER RUNNEL AND ENTRANCE FROM 4TH AVENUE E.





Figures 214 and 215

II. ART WALL
(WEST OF THE 4TH AVENUE E. ENTRANCE)





Figures 216 and 217

III. ARTESIAN WATER SOURCE (VIEW LOOKING SOUTH ACROSS UPPER PLAZA)





Figure 218

IV. POSSIBILITIES FOR CREATIVITY, IMAGINATION, AND PLAY IN PUBLIC SPACE



An amazing Olympia mural, "The Yellow Brick Wall," 2011, by artist David Joel..
(Image: OneEyeOpens Paintings by David Joel, <http://oneeyeopens.com/murals/>, accessed 5.1.2013)

Figure 219

V. GATHERING AND PLAY IN THE LOWER PLAZA



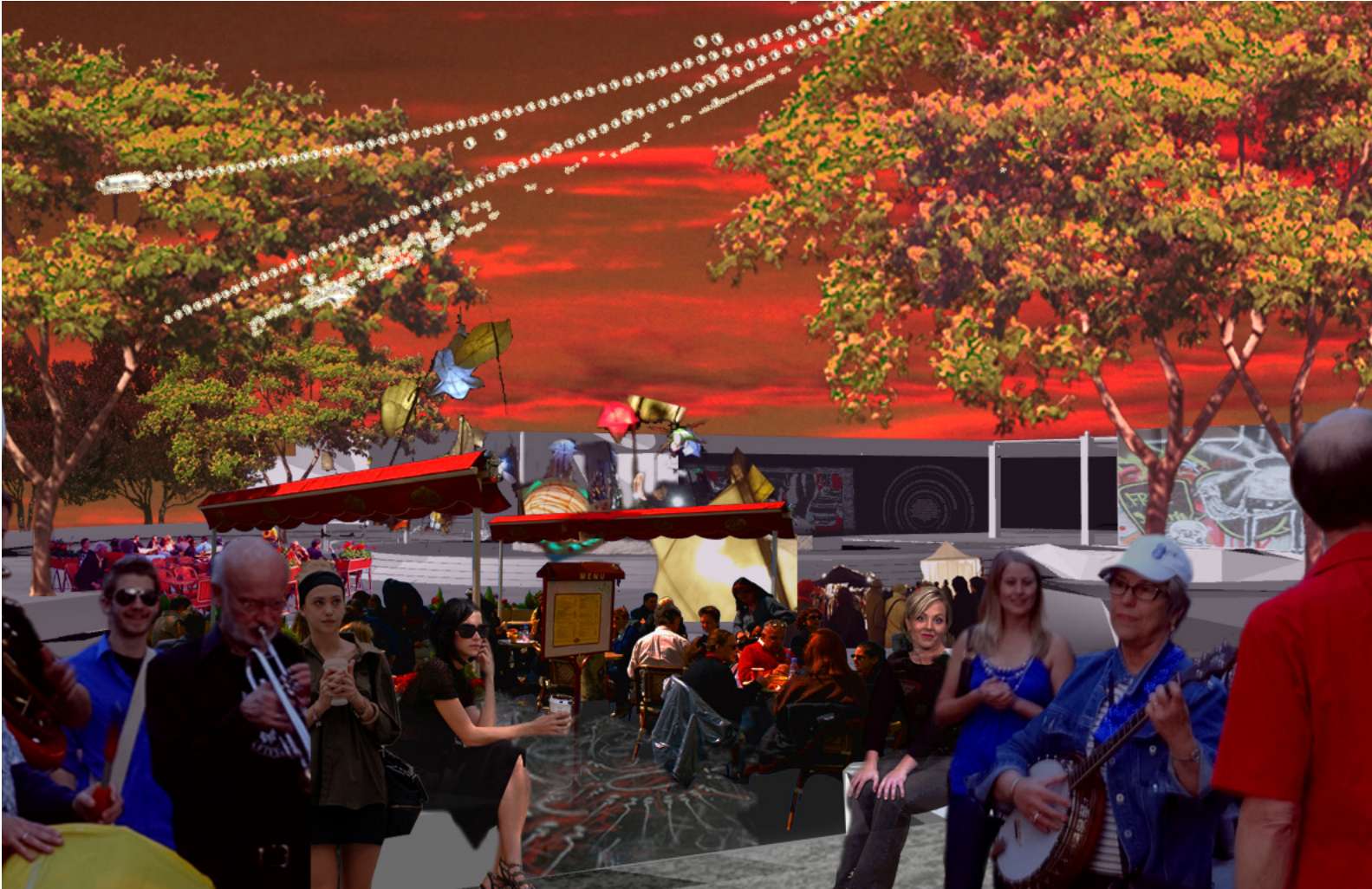
Figures 220-221

VI. VIEW ACROSS THE LOWER PLAZA FROM THE SOUTHEAST ENTRANCE





VII. EVENING FESTIVAL AT THE FRIENDS OF ARTESIANS PLAZA





05.06 DESIGN DEVELOPMENT

EARLY SITE ITERATIONS

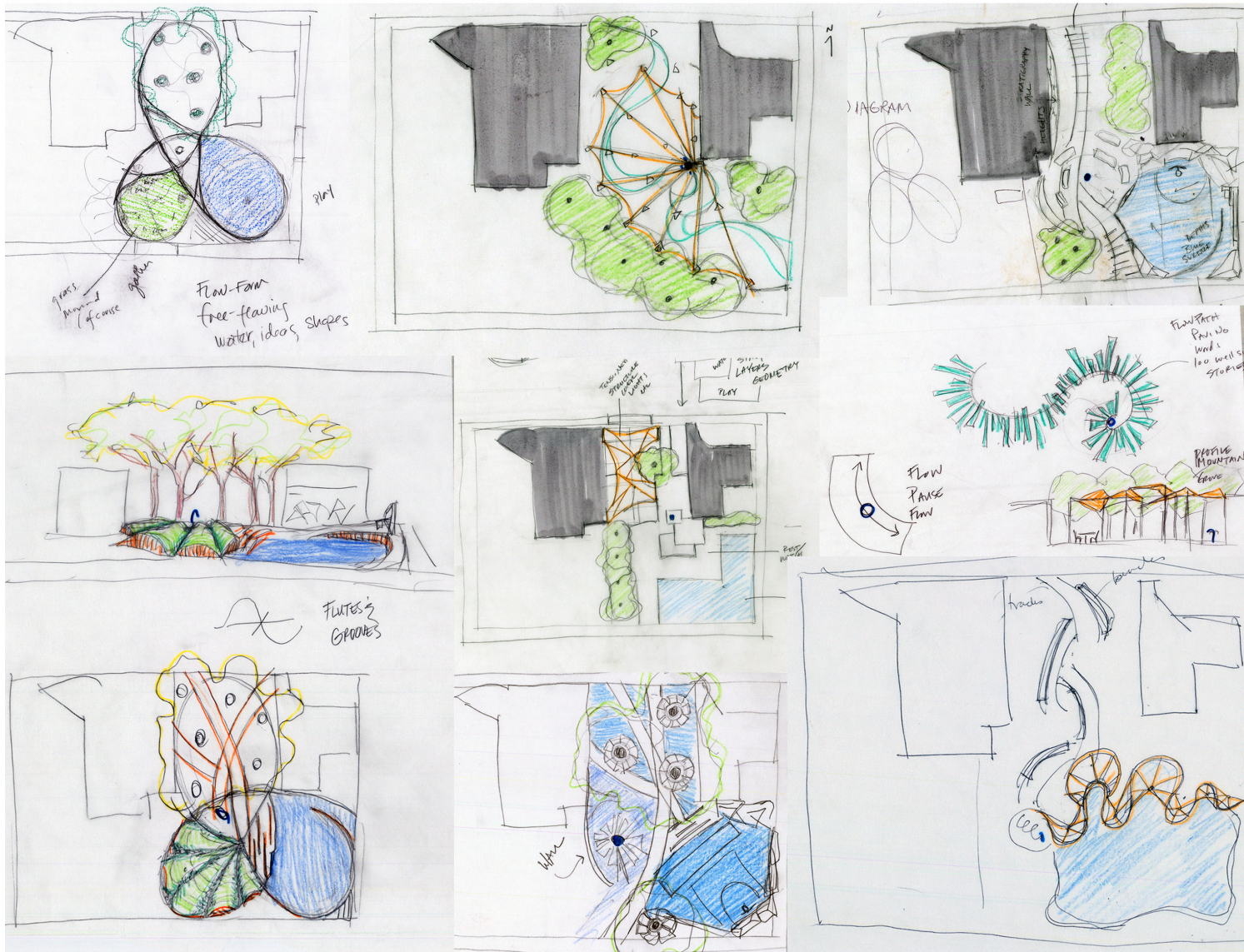


Figure 224

EARLY SITE ITERATIONS

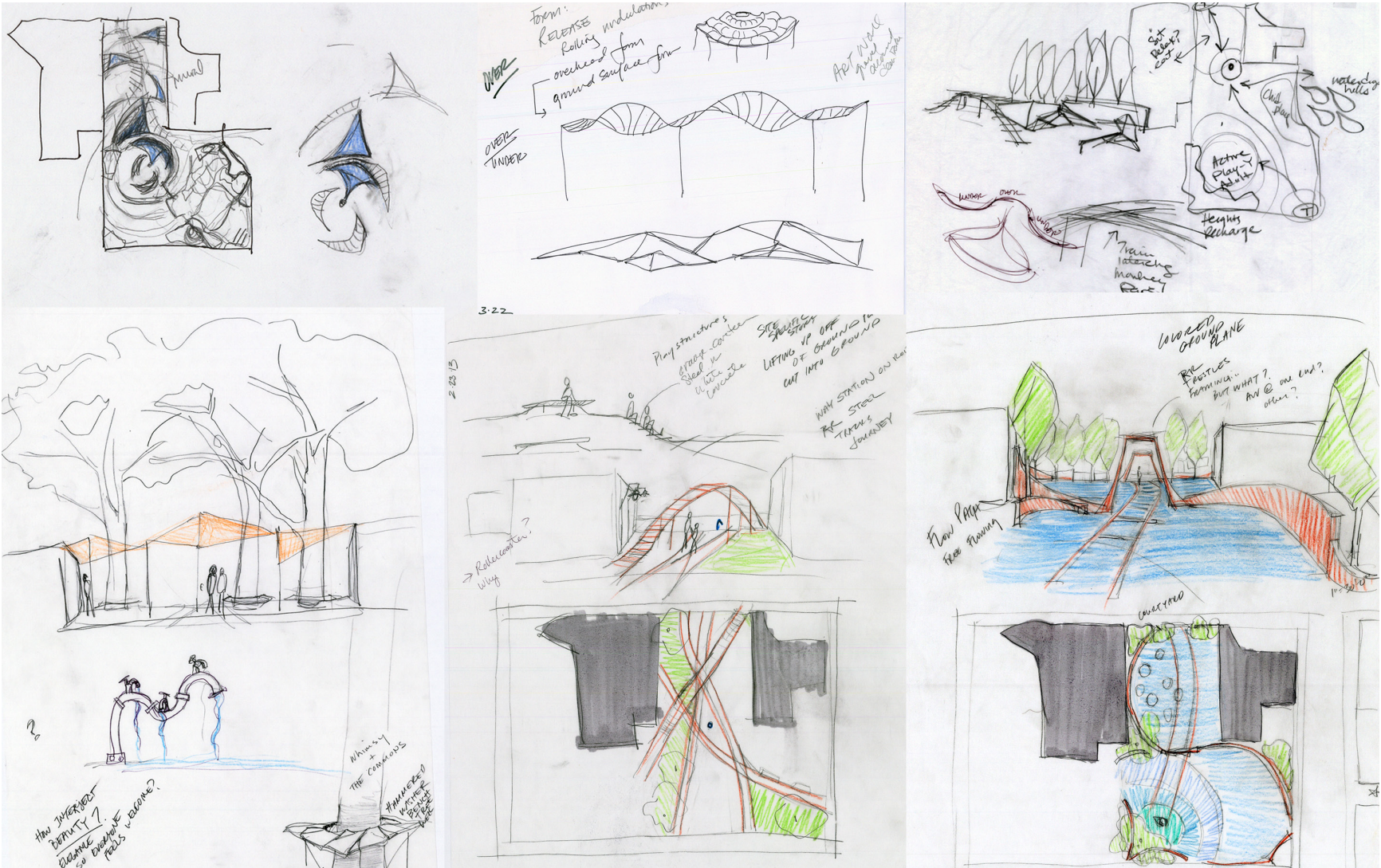


Figure 225

EARLY SITE ITERATIONS

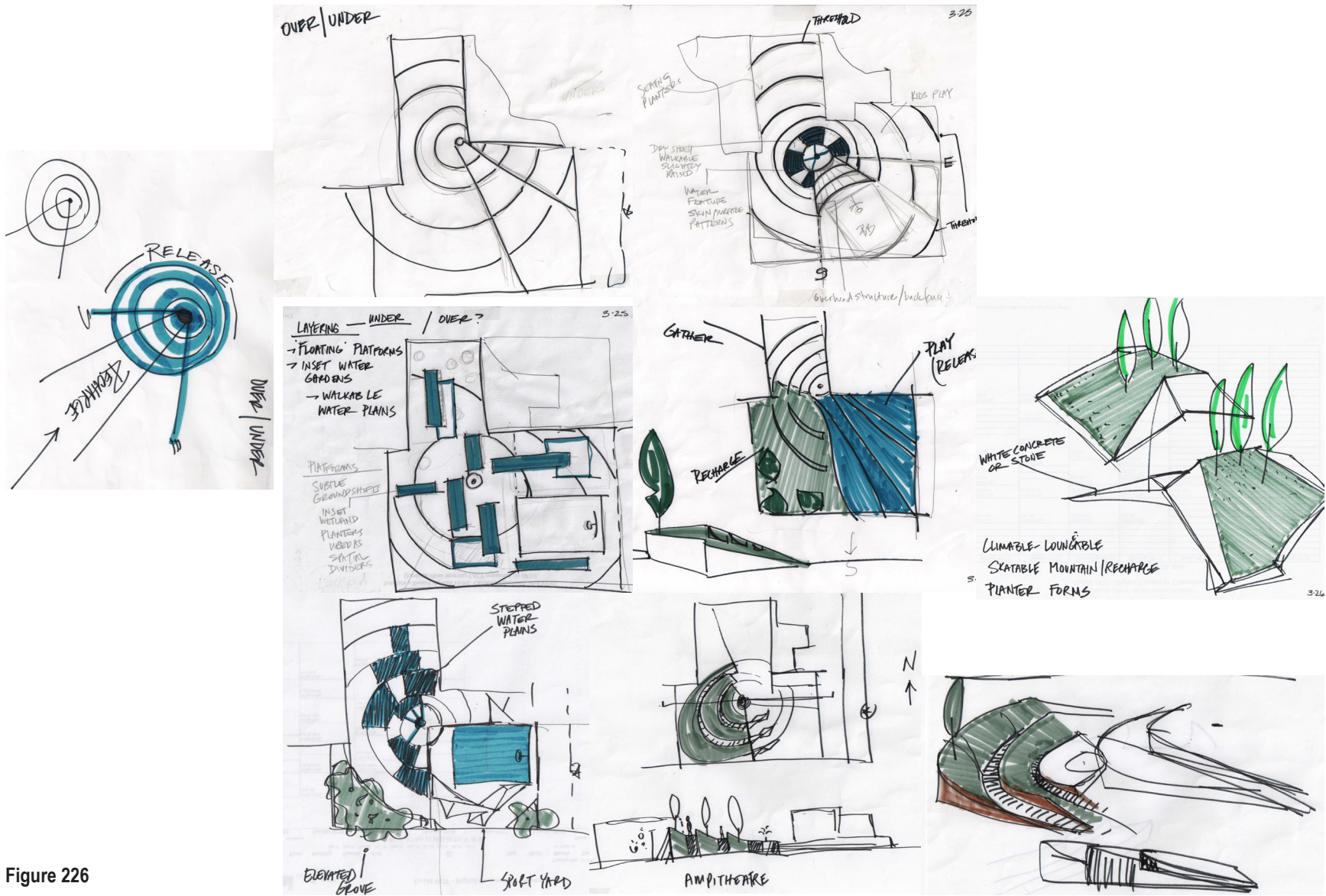


Figure 226

EARLY SITE ITERATIONS

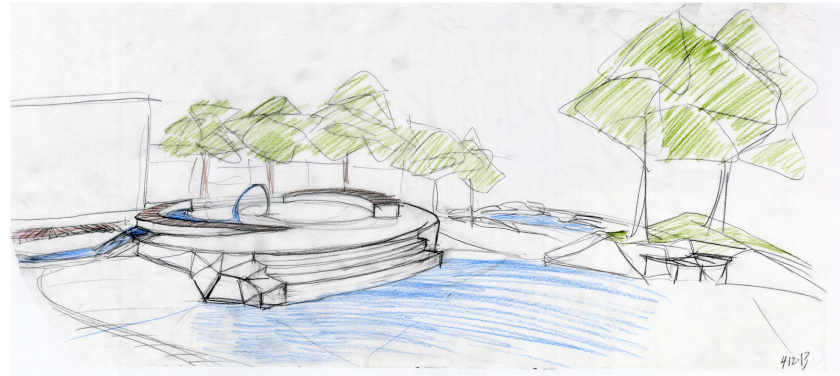
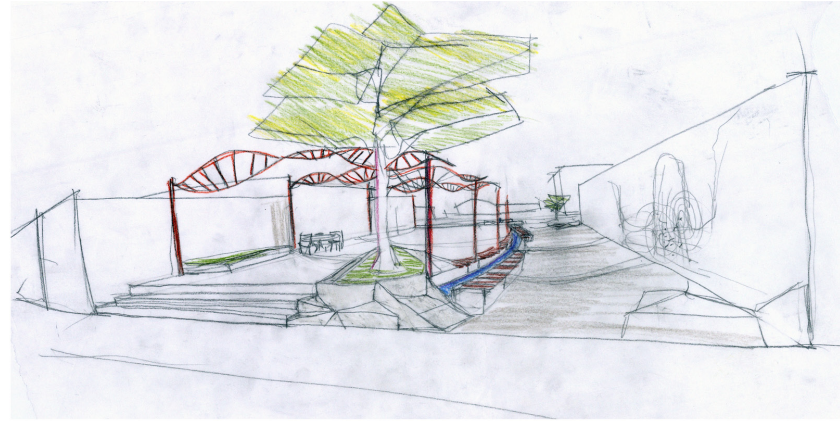
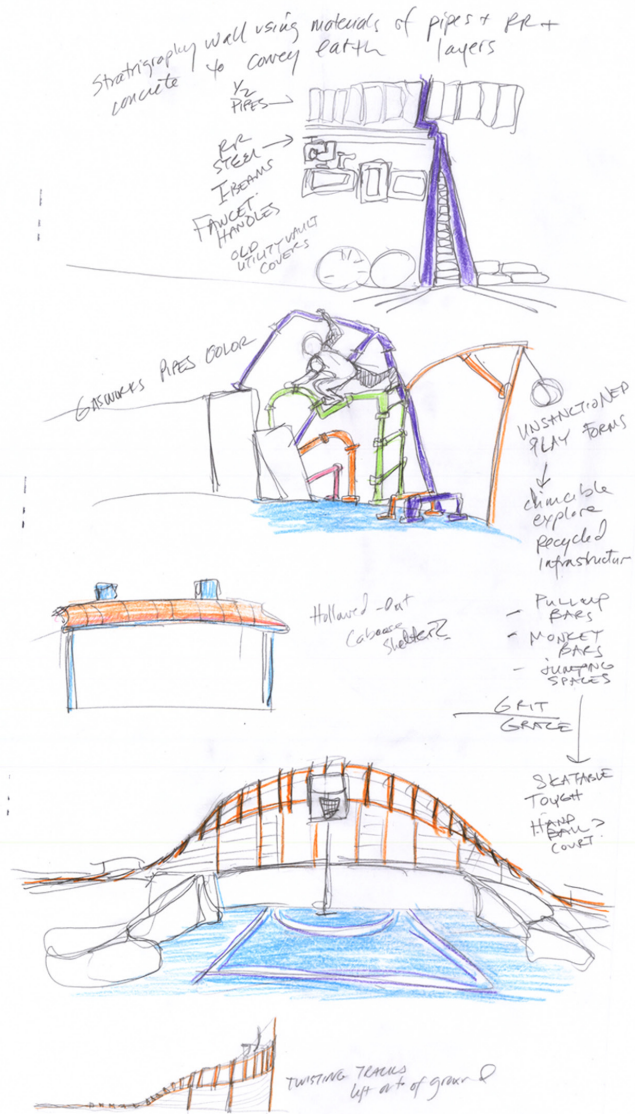


Figure 227

ARTESIAN WATER FEATURE ITERATIONS

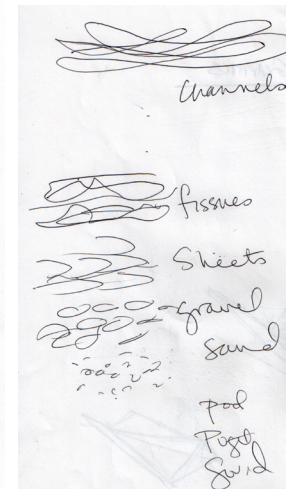
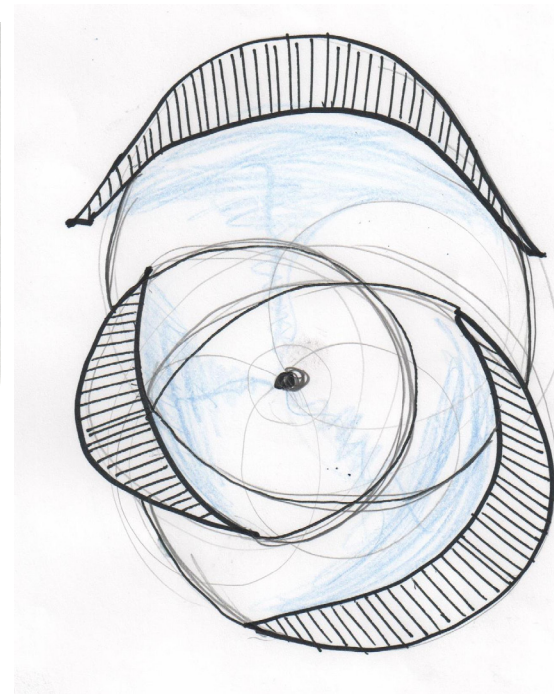
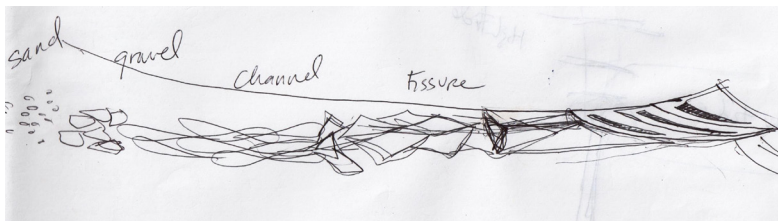
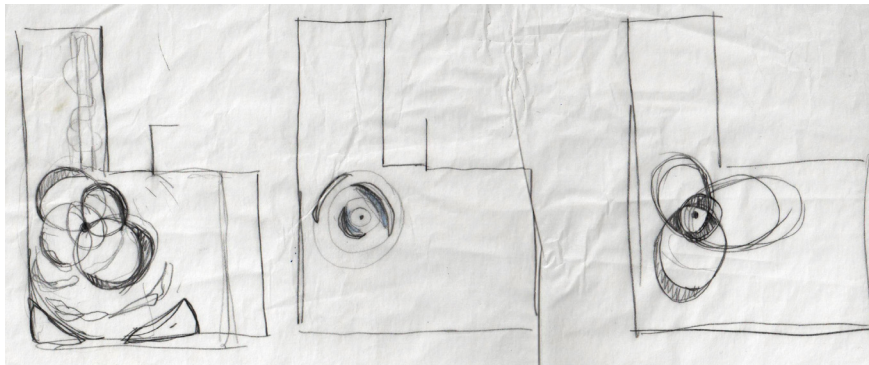
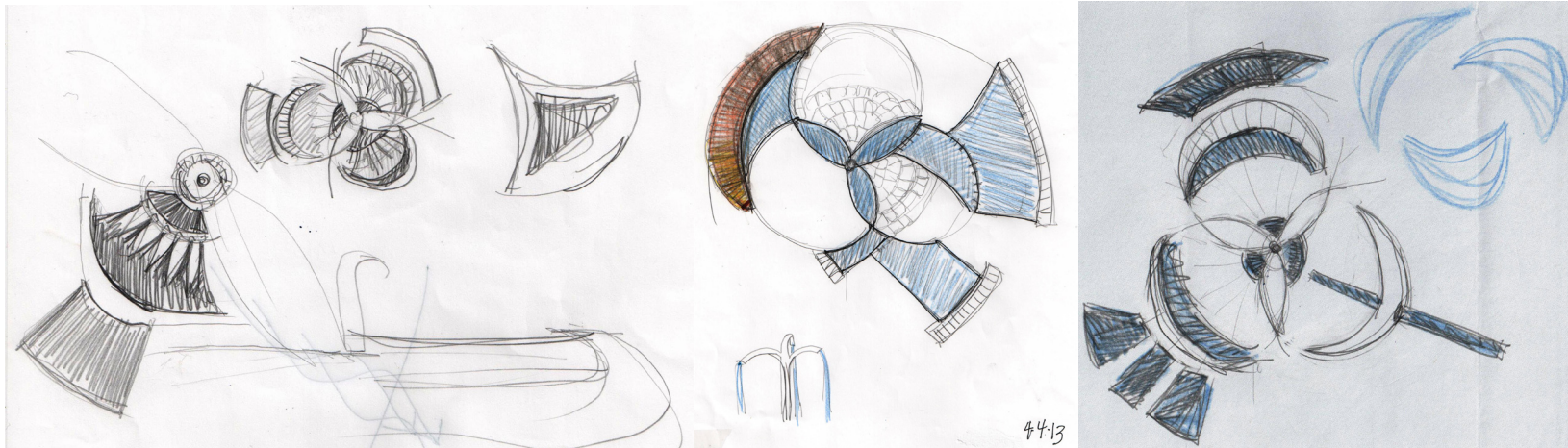


Figure 228

ARTESIAN WELL MARKER ITERATIONS

exploration of murals, whimsical sculpture, stencils, metal insets

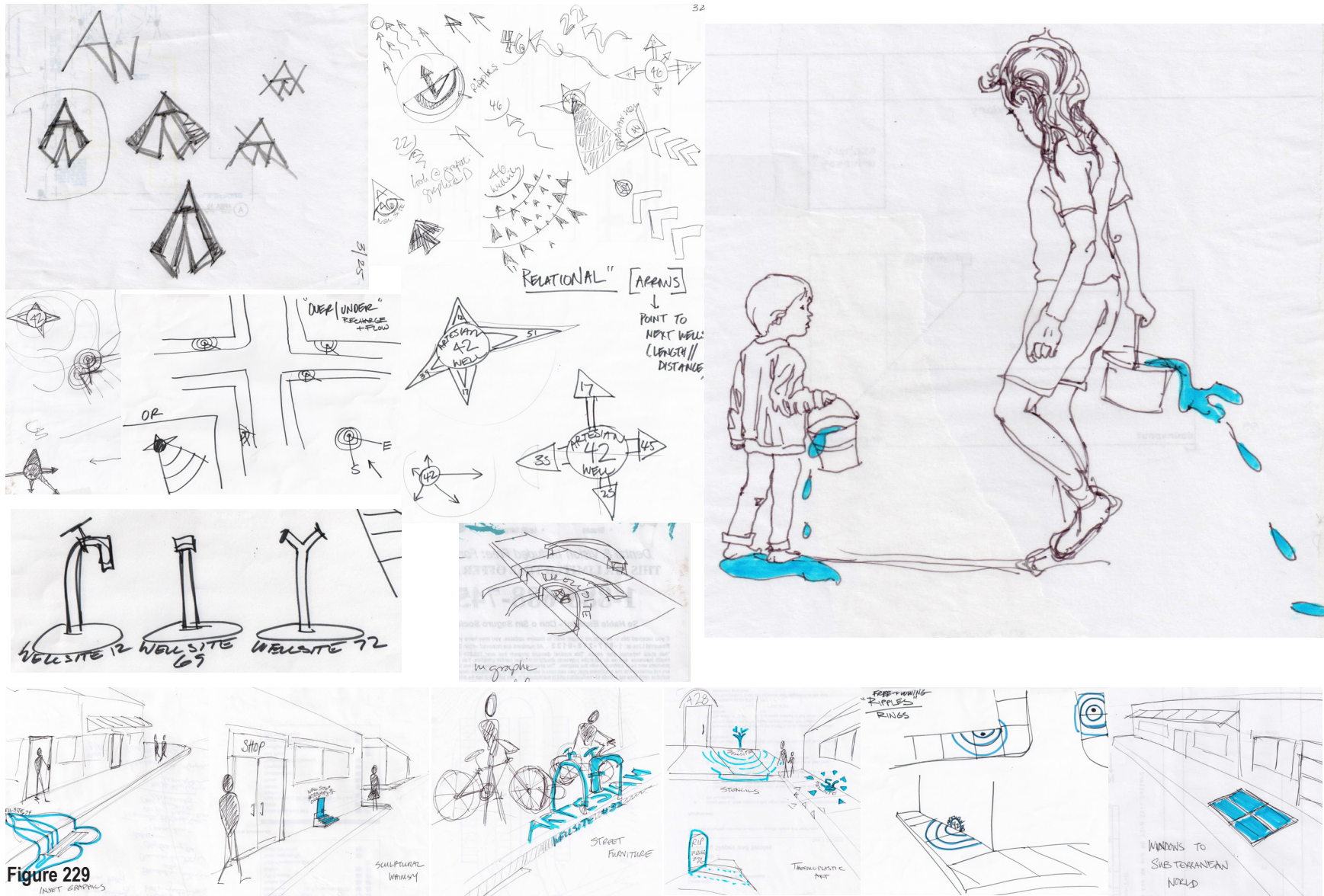
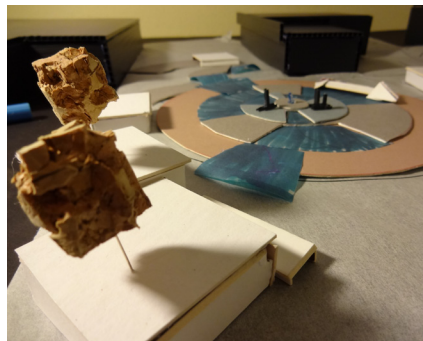


Figure 229
INSET GRAPHICS

EARLY EXPLORATORY MODELS



Model of overall artesian well system



Site exploration

Figure 230

DIGITAL MODEL DEVELOPMENT (RHINO)

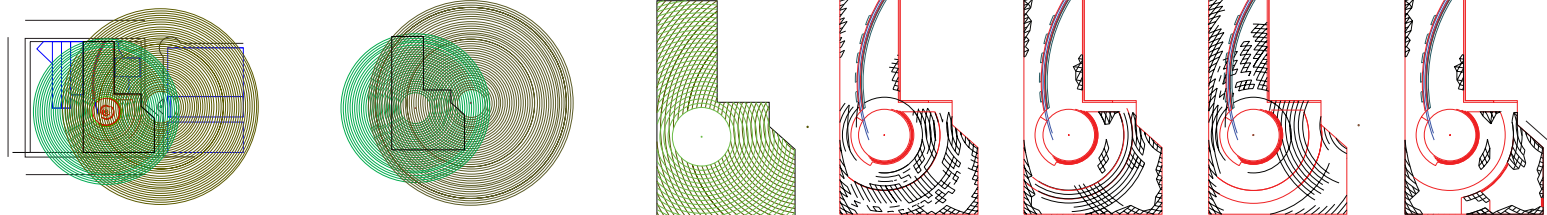
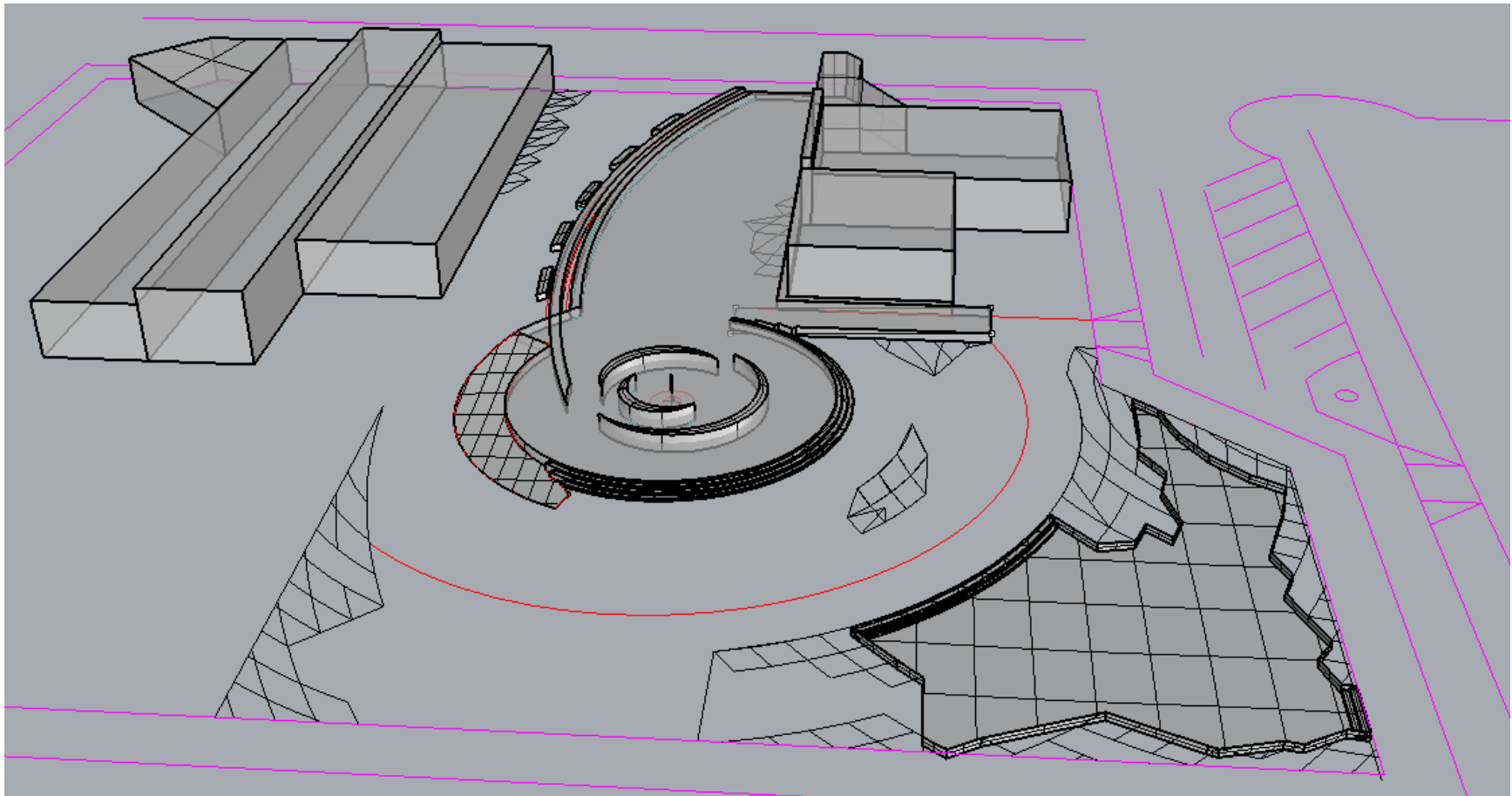
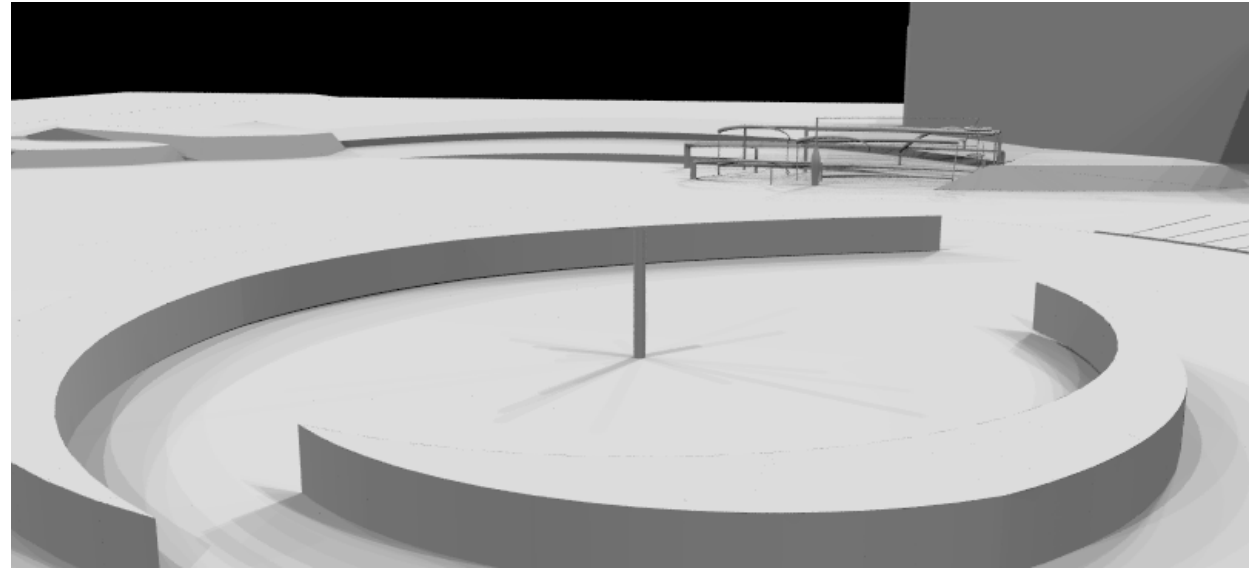
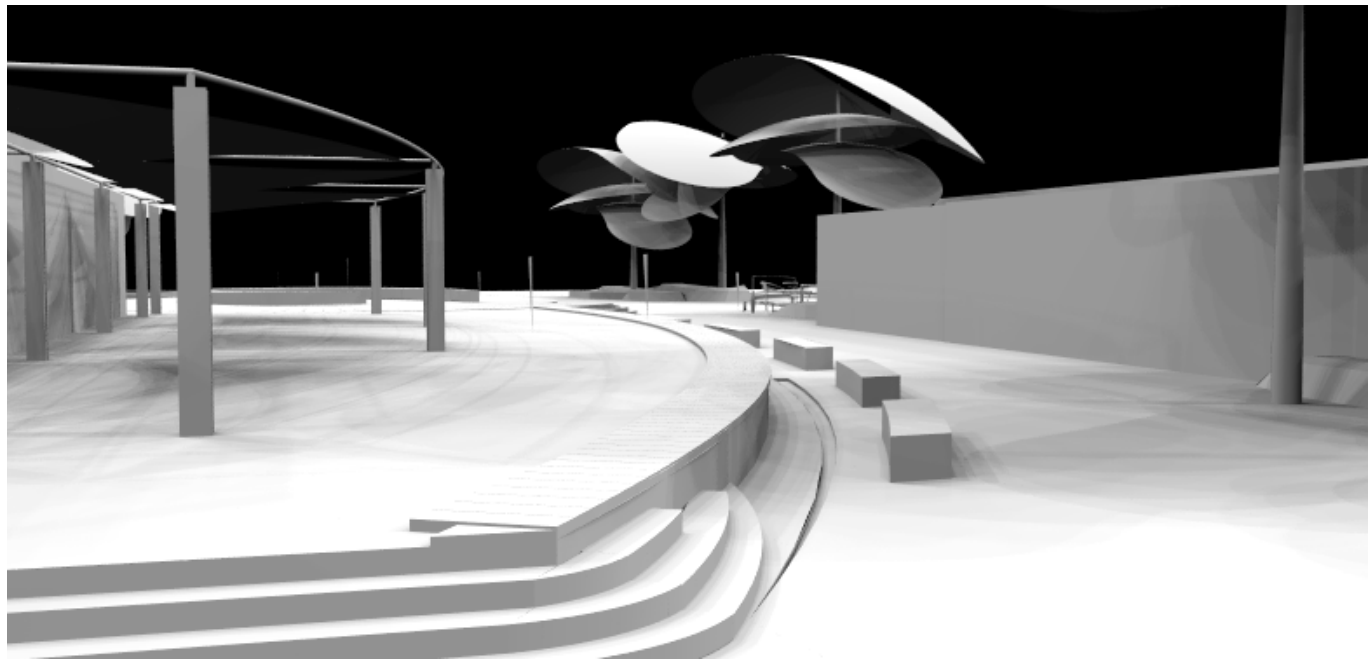


Figure 231

DIGITAL SITE MODEL
DEVELOPMENT

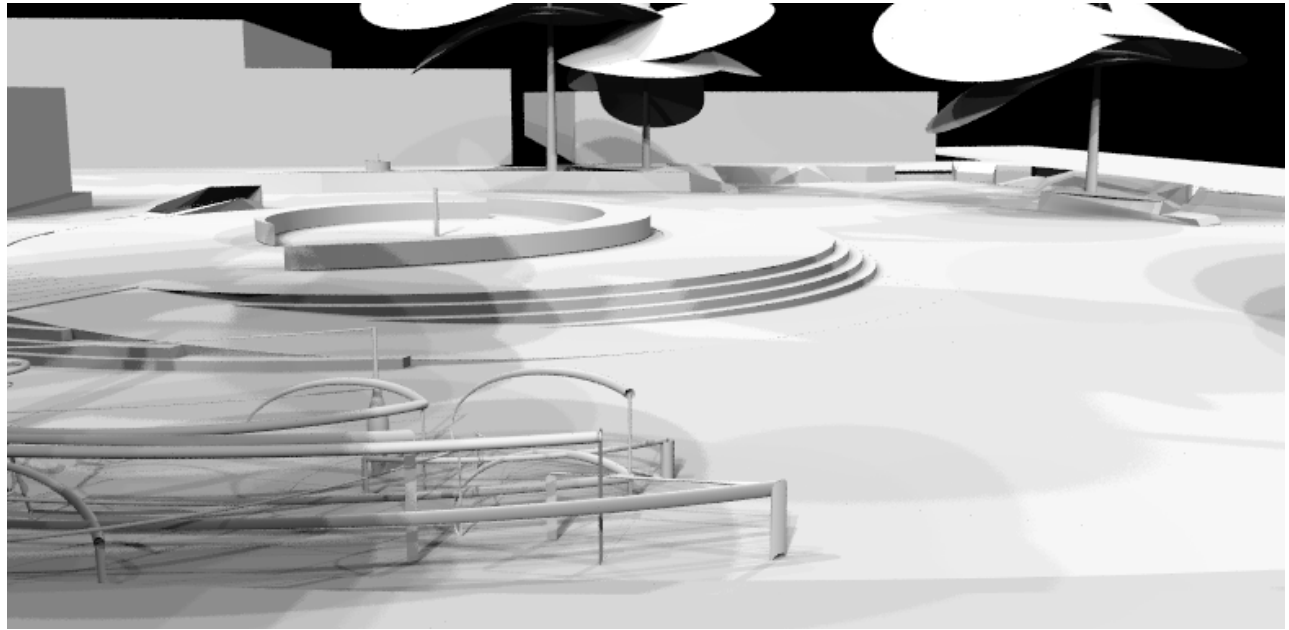


BENCHES AROUND
ARTESIAN WELL

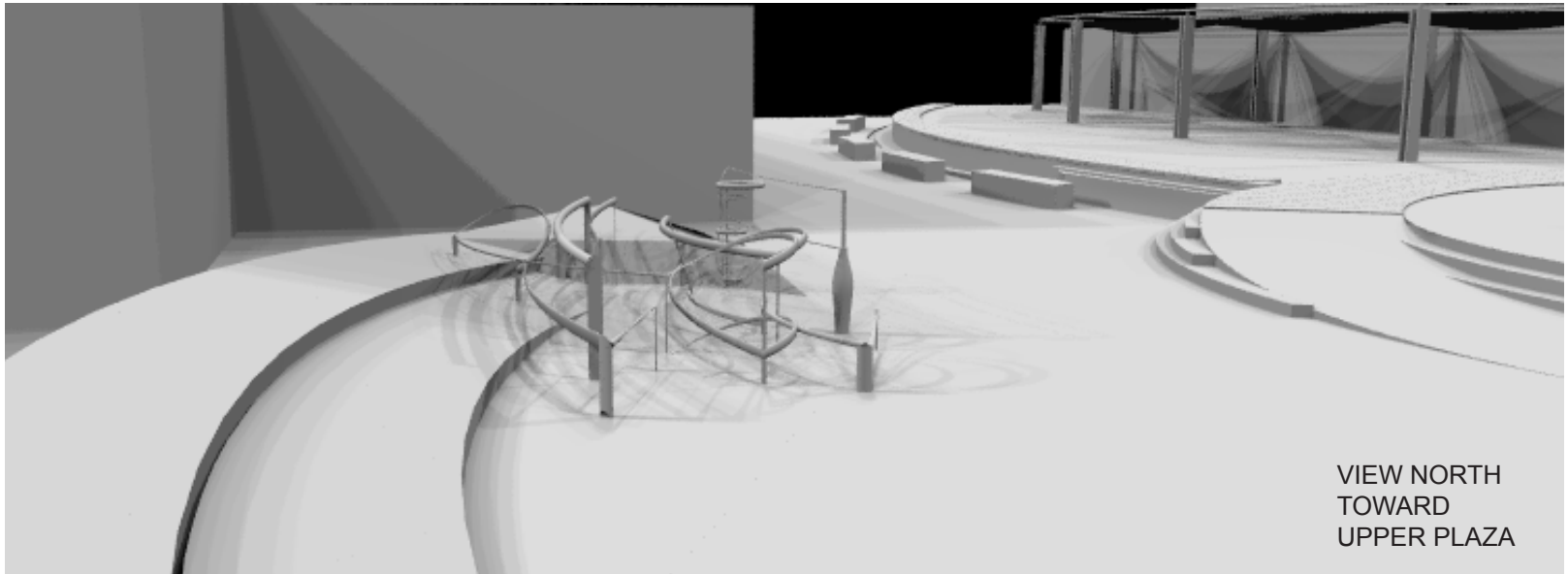


VIEW IN,
FROM NORTH
ENTRANCE

Figure 232



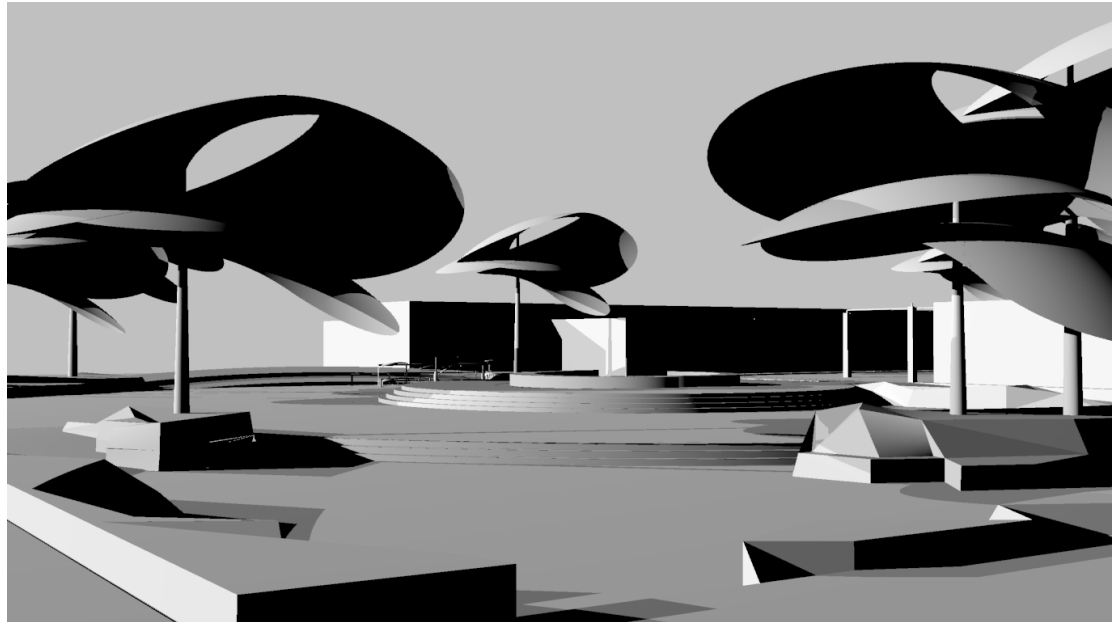
VIEW EAST OVER
JUNGLE GYM



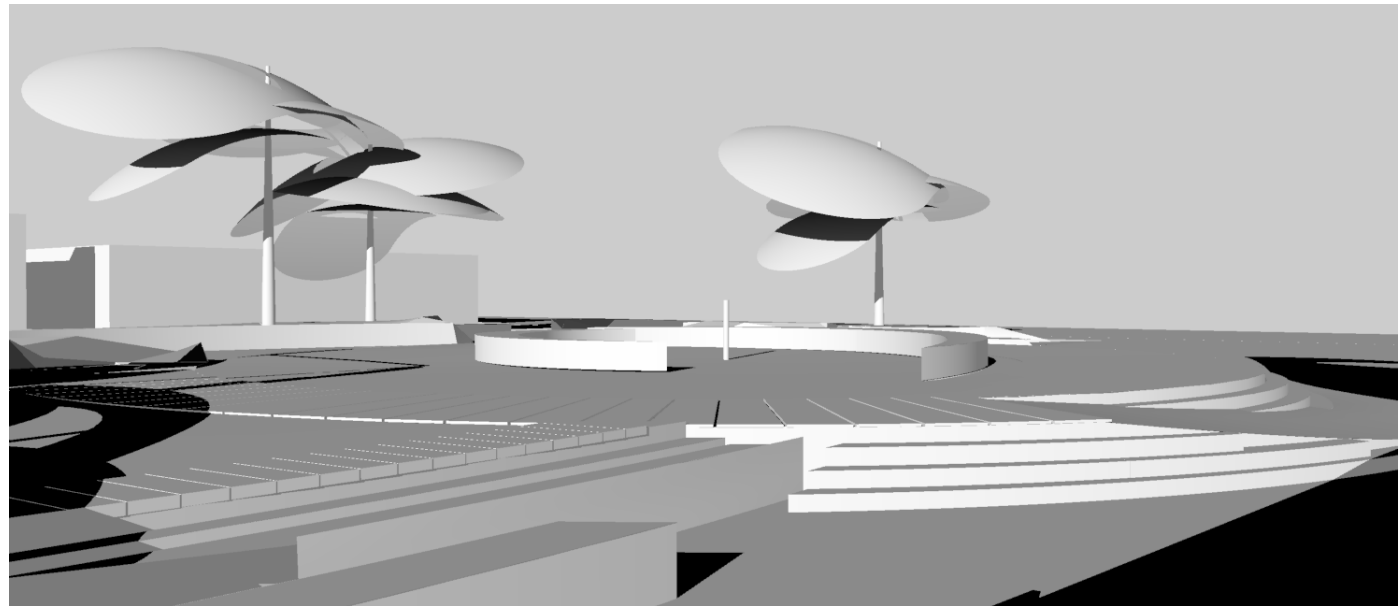
VIEW NORTH
TOWARD
UPPER PLAZA

Figure 233

DIGITAL SITE MODEL
DEVELOPMENT



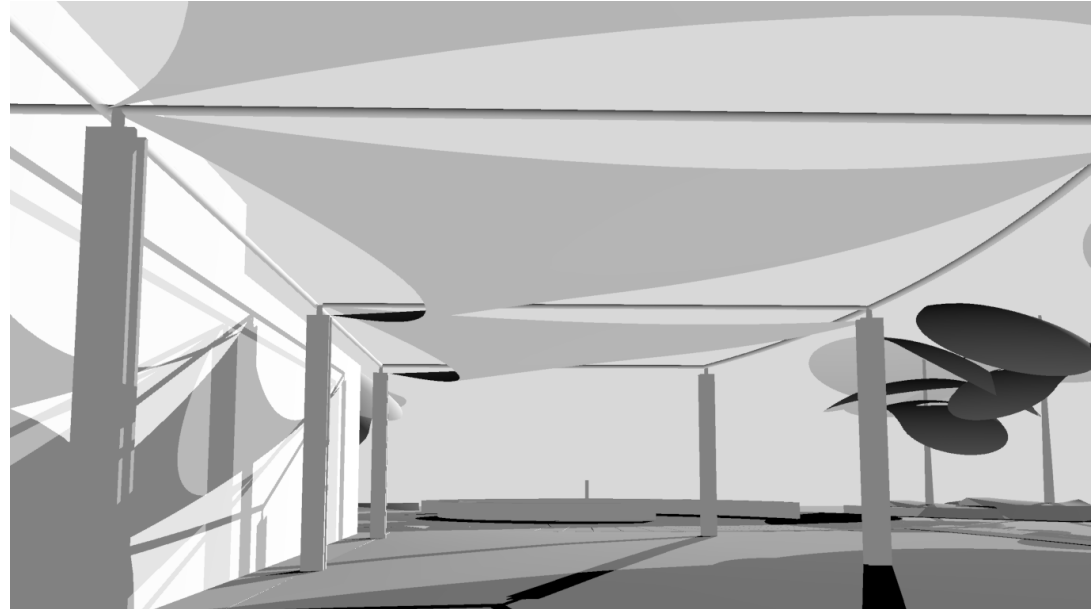
VIEW NORTHWEST
ACROSS LOWER PLAZA



VIEW SOUTH,
TOWARD WATER
FEATURE

Figure 234

VIEW SOUTH,
UNDER STRUCTURE



VIEW INTO SITE,
FROM 4TH AVE.

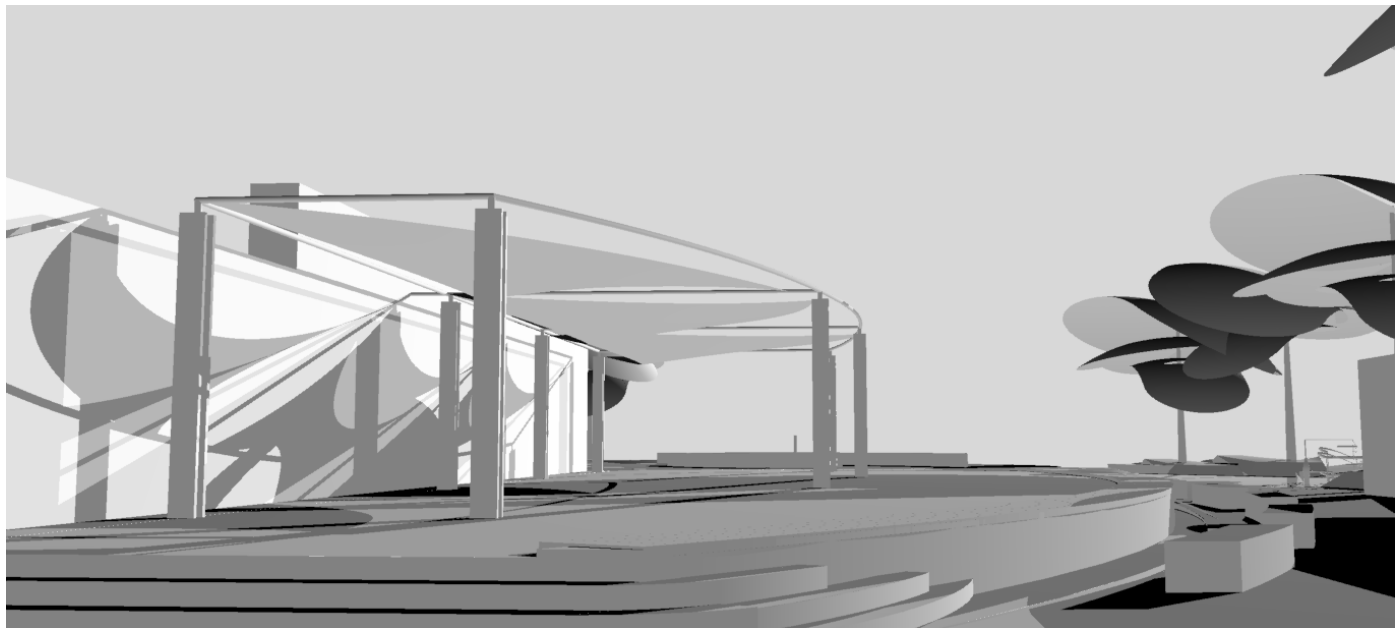
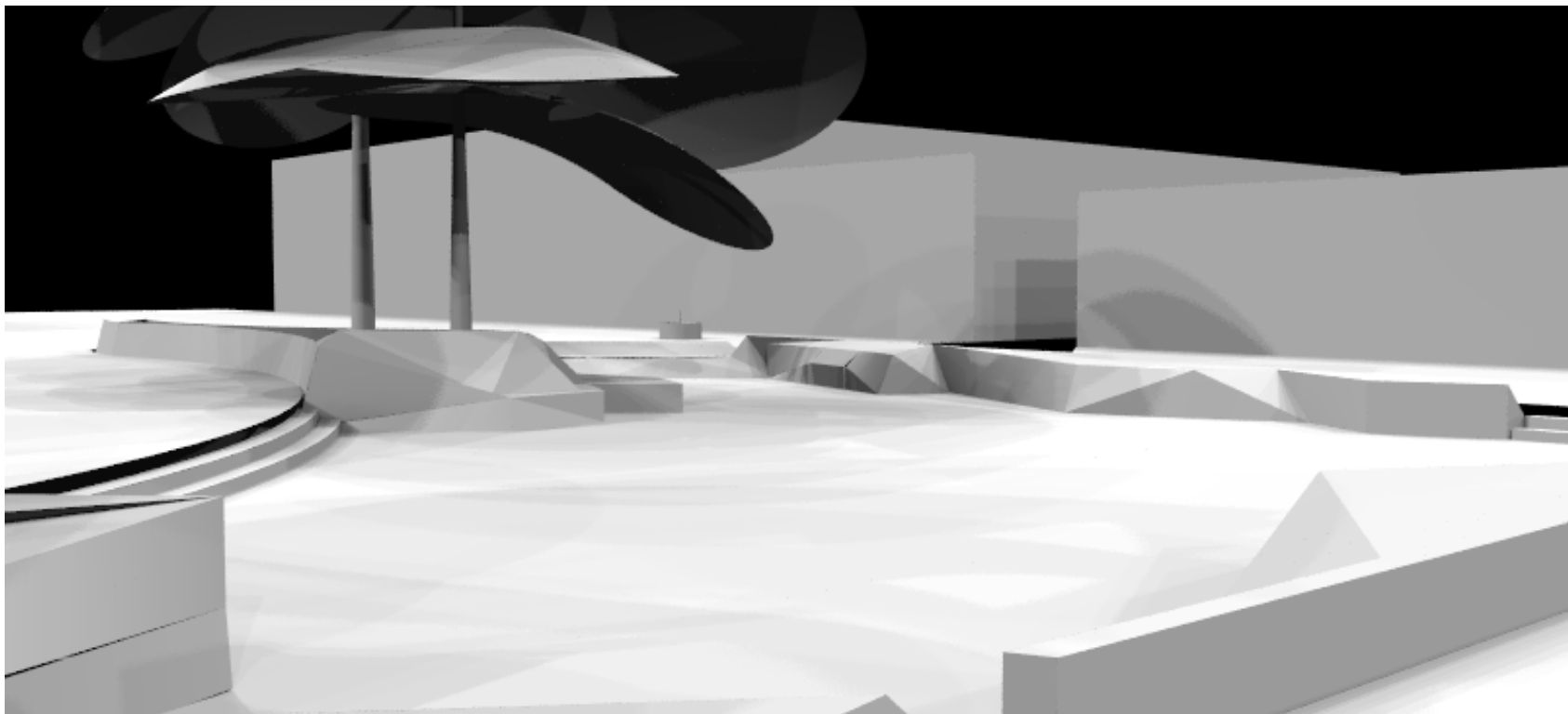


Figure 235



VIEW OF LOWER PLAZA FROM VARIOUS PERSPECTIVES

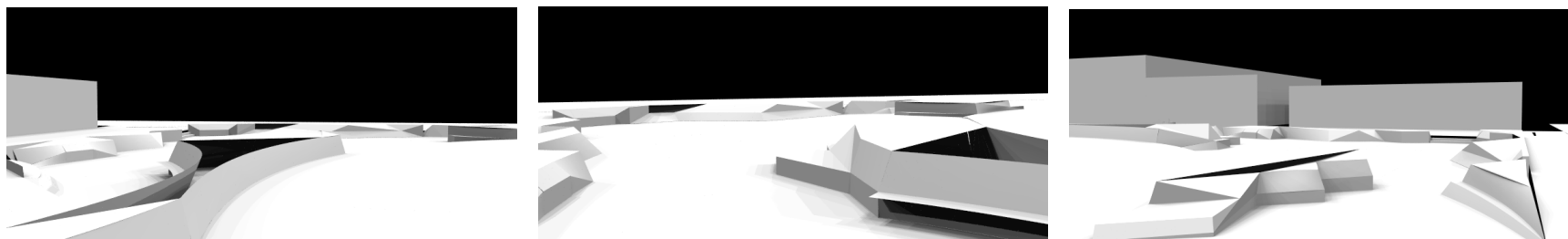

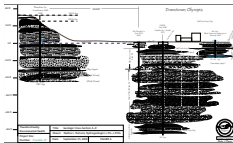


Figure 236

PRESENTATION BOARDS

OLYMPIA'S ARTESIAN WELLS: MAKING THE INVISIBLE VISIBLE





METHODOLOGY


- MULTISCALAR**
 - City Scale
 - Site Scale
- LAYERED**
 - HISTORICAL**
 - SOCIAL**
 - HYDROLOGICAL**
 - COMMUNITY**
 - CONTEMPORARY**
 - ENVIRONMENTAL**
 - ECOLOGICAL**
 - WATER STEWARDSHIP**

CITY SCALE

- MARKING WELLSITES
- CITYWIDE TRAIL ALONG PARK NETWORK




WELL #46



PROBLEMS

- Historical, historic artesian well
- Overgrown + Matted
- Poor, Decayed, Cracked
- Signs of human presence/1000+ years of use
- Art / Mural

WELL #22



PROBLEMS

- Historical, "The Water User's Office"
- Private sector + Homelessness
- Waterworks + Clean + Rivers
- Traffic, Litter + Graffiti
- Unsafe
- Signs of human presence/1000+ years of use
- Water's voice

PROBLEMS

- Historical, historic artesian well
- Overgrown + Matted
- Poor, Decayed, Cracked
- Signs of human presence/1000+ years of use
- Art / Mural

PROBLEMS

- Historical, historic artesian well
- Overgrown + Matted
- Poor, Decayed, Cracked
- Signs of human presence/1000+ years of use
- Art / Mural

PROBLEMS

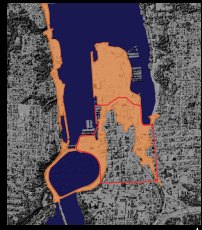
- Historical, historic artesian well
- Overgrown + Matted
- Poor, Decayed, Cracked
- Signs of human presence/1000+ years of use
- Art / Mural

PROBLEMS

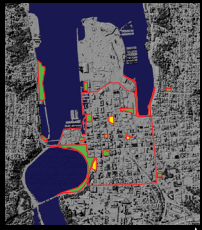
- Historical, historic artesian well
- Overgrown + Matted
- Poor, Decayed, Cracked
- Signs of human presence/1000+ years of use
- Art / Mural

CONTEXT + FOUNDATION

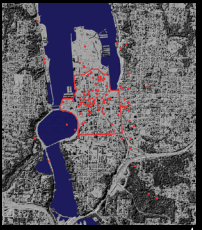
... "I think of the well as a punctuation mark along a hydrogeological circle of community... the place we come, in time, and find each other, and drink. The well is itself a destination place; people come there for the water. The meeting of people that occurs there, is indirect and natural." - Jim Ingersoll, Friends of the Artesians



CONSTRUCTED LAYERS:
434 Acres of Pigeon Bluffs of Pringle and Downtown Layer By 1915




PUBLIC SPACE TODAY:
Parks: Frank Downtown Olympia




ARTESIAN WELL BONANZA:
Close to 100 Artesian Wells Dug Afters 1895


1939-1943
94 WELLS + SPRINGS




1999
19 WELLS, 3 SPRINGS



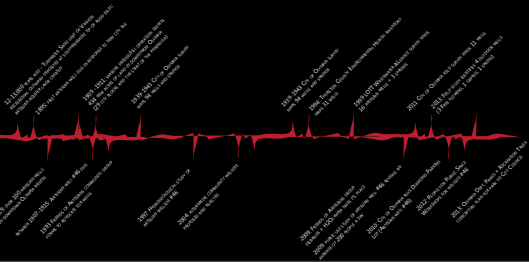
2011
11 WELLS, 1 SPRING



2013
4 OUTDOOR WELLS, 1 SPRING



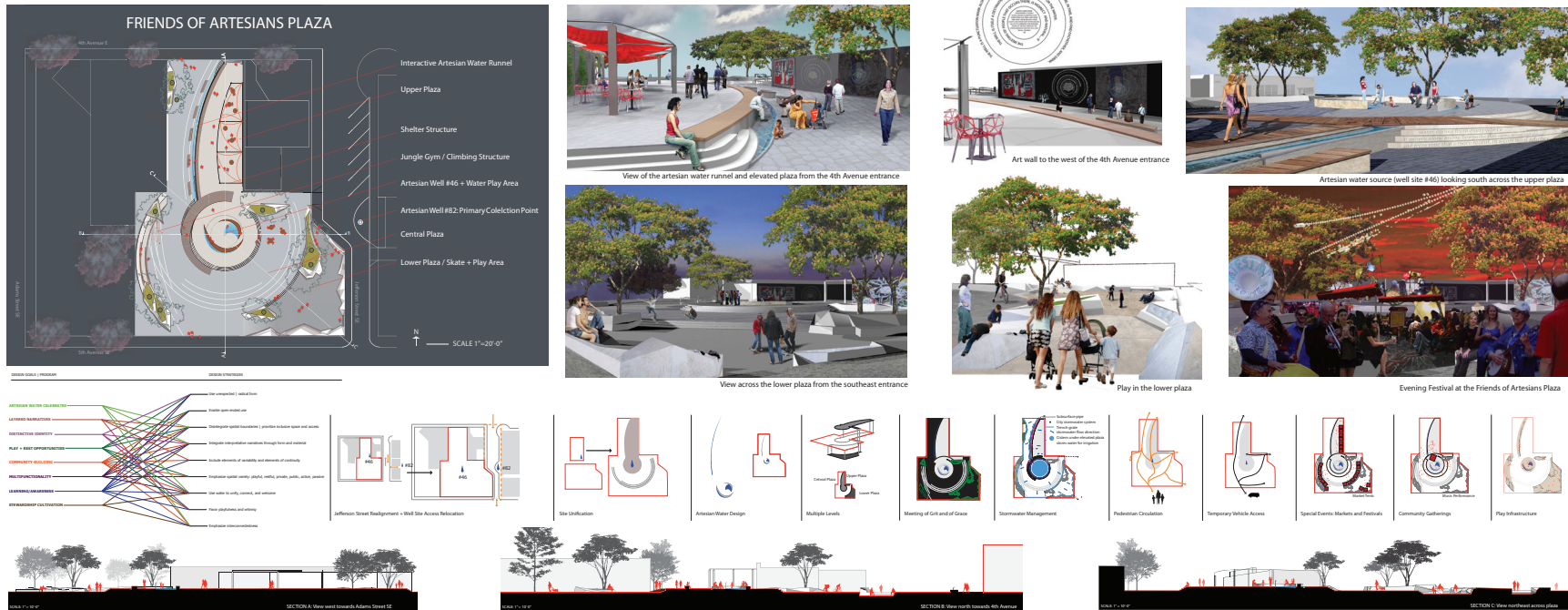
THE EMERGENCE + DISAPPEARANCE OF OLYMPIA'S ARTESIAN WELLS



MIDTERM PRESENTATION BOARD, 2.8.2013

Figure 237

MAKING THE INVISIBLE VISIBLE: OLYMPIA'S ARTESIAN WELLS AND PUBLIC SPACE DESIGN



FINAL THESIS PRESENTATION BOARDS, 6.5.2013

Figure 238

MAKING THE INVISIBLE VISIBLE: OLYMPIA'S ARTESIAN WELLS AND PUBLIC SPACE DESIGN

KARIN STRELIOFF, MLA CANDIDATE 2013

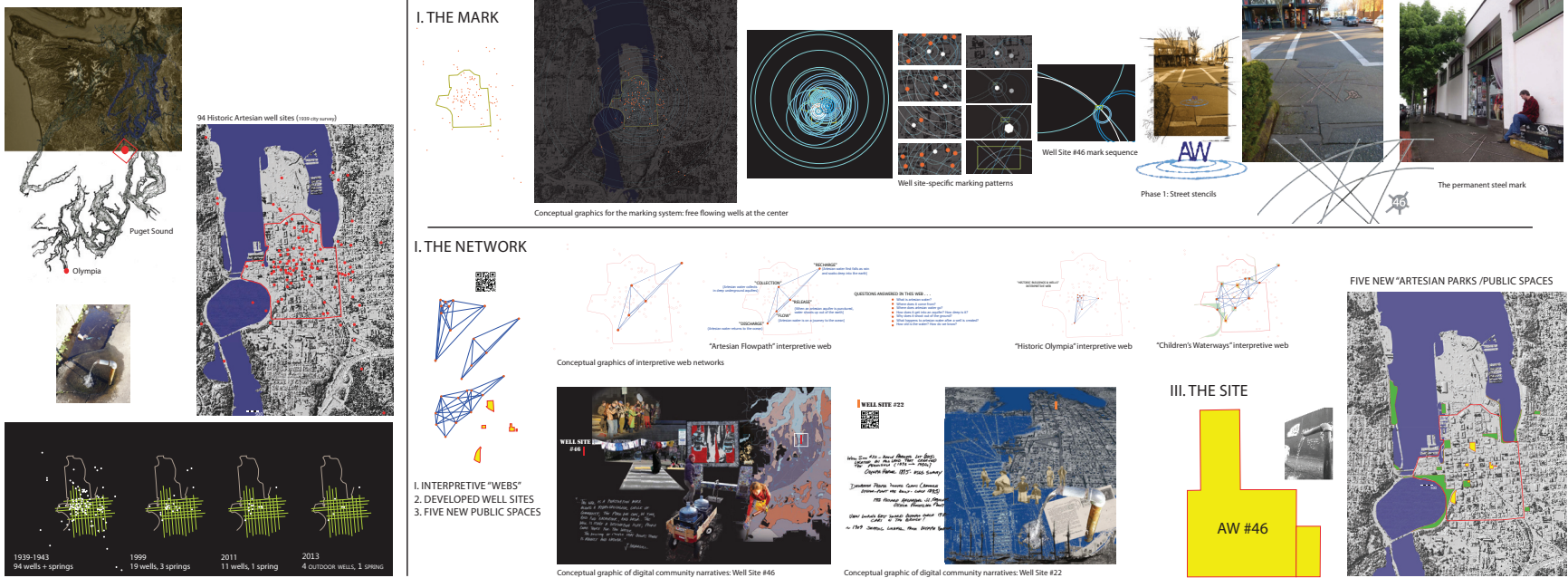


Figure 239

FROM RESEARCH TO DESIGN

The following questions influenced my thinking throughout the thesis process: How can thinking about and designing multiple interrelated sites at several scales concurrently enhance spatial experience and meaning? How can design of public space be inclusive, adaptable, and responsive? How can design that works within systems and across scales support ecological awareness and foster a stewardship ethic?

This thesis engaged tools of landscape architecture to reveal and celebrate the nature of Olympia's artesian water in ecological, historical, and social contexts. My work was inspired by a very specific understanding of artesian water. With the exception of rare instances where artesian water still flows, it is primarily a memory in the public sphere. However, it is also an invisible presence that still flows deep beneath Olympians' feet. It is thousands of years old. Where it does emerge, it flows continuously - mysterious and generous. Artesian water means many things to the Olympia community, and each of these meanings has value.

This thesis has demonstrated that Olympia's artesian water need not remain concealed and forgotten. Communicating the presence of something so old, so evocative, and so precious made me realize that a single design strategy would not be appropriate or sufficient. This thesis has explored a variety of multi-scalar strategies to return artesian water to public awareness. I have argued that an enhanced experience of public life in Olympia could result from design interventions proposed at multiple scales, in multiple ways, all linked by their relationship with artesian water. In chapter five I developed a set of ten principles as the foundation for my design process:

- Work Concurrently at Multiple Scales.
- Build Nested Systems.
- Reveal Layered Narratives.

- Design for Multi-functionality.
- Facilitate Ecological and Social Resilience.
- Achieve Elastic Design.
- Honor Joy and Learning through Design.
- Prioritize Inclusiveness.
- Dissolve Boundaries.
- Build Community.

This thesis project realizes some principles with success while others remain more elusive. In particular, the project emphasizes conducting design work at multiple scales simultaneously. I believe this is an especially effective strategy for revealing the many stories and design possibilities related to artesian water in Olympia. By working across scales - from that of the city to that of the site - and by embracing a variety of design tactics, the project became much more compelling for me and I believe if realized, it will be much more compelling for residents and visitors. This strategy also produced a more coherent, integrated overall suite of design proposals. The benefits of working simultaneously across multiple scales are a lesson I will carry into future projects as I move forward professionally.

All spatial narratives are human constructions that tell fascinating stories about our evolving relationships with place over time. Determining how to reveal layered narratives in creative and playful ways has been thought-provoking throughout the course of developing this thesis. Deciding which narratives to privilege, and then being inclusive and engaging was an important design challenge. One tactic I used was to seek out particularly compelling quotes related to the artesian wells, and to use these words as a design element that would convey to people the many layers of meaning related to artesian water. Conversations with Jim Ingersoll (formerly of “Friends of Artesians”) and hydrogeologist Nadine Romero were particularly moving and led to evocative quotes that express both intellectual and emotional connections with artesian water. These are the words that I integrated into the art wall and etched into the steps at “Friends of Artesians Plaza.”

Another tactic for revealing narratives was to honor past artwork and reintroduce historic stencil graffiti as part of the site design. I also imagined opportunities for future street art to reveal the presence of artesian water as a means of continuing community narrative. The idea of creating a digital repository for collective memories about Olympia's well sites is very compelling. I love the participatory nature of such a concept, which could evolve organically based on what the community chooses to upload and share. It could be quite engaging for residents and visitors, forming a continually evolving community dialogue. Another important aspect of this concept is that it allows the community (rather than a single designer) to decide which narratives to share or leave behind. Sharing site-based stories through design is a fascinating challenge and one that will continue to be an important part of my work.

Exploring how artesian water might connect people to natural resource stewardship has also been a very important component of the project. Recognizing that Olympia's artesian water can stir both hearts and minds was a fundamental impetus for the selection of this project. The design proposals in this thesis would be a first step towards cultivating and sharing a stewardship philosophy. By encouraging people to learn about artesian water, to touch it, drink from it, and to play with it, I hope that they might begin to care for it as well. Only implementation of the proposed design projects could test this theory.

Designing for inclusion and dissolving boundaries are two very important principles I have addressed. I find beauty in diversity and I felt that the site design had to express this perspective in order to welcome as many people as possible. To honor the principle of inclusiveness, I tried to integrate two different aesthetic languages: the language of grit (abstracted geologic forms that could be used for activities like climbing, play, and skateboarding; graffiti-like artistic elements; multiple sub-spaces to accommodate different types of gatherings within the unified larger space) and the language of grace (simple, sweeping gestures with the artesian water and benches; use of a classical elevated plaza with a clean, elegant aesthetic; a limited palette of materials). A risk of designing with street art elements or unconventional forms is that of inadvertently adopting passing trends or fads. I hope that my use of stark yet multifunctional geometric forms, relating both to play and to subsurface geology, counter this risk. In combination with the simpler shape of the upper plaza, these two languages can withstand the tests of time and hard use. I believe that these elements integrate successfully in this design to create a unified yet unusual site that would be appealing to people of many different ages,

perspectives, and backgrounds.

BRIEF WORDS ABOUT PROCESS

The process of developing, organizing, and executing this thesis provides a number of important tools that I will carry with me into future projects.

- Working with a set of principles helped to keep me focused and continually “checking-in” with my framework, to stay on course.
- During the creative process each principle was adapted to the scale of the challenge, and emphasized or not based on its potential to contribute to meaningful design.
- Continually cycling across different scales was useful for thinking about design concepts as well as developing a unified design.
- Iterative process was exceptionally helpful. Trying out ideas throughout the process and returning to them periodically to see which retained meaning and which sifted out was very effective in developing a final design proposal.
- Researching, drawing, and writing simultaneously created a necessary exchange that forced me to articulate ideas and strategies in multiple forms. Expressing idea through words, then in visual form, then back again in text was a slow yet rewarding process that was like sharpening a blade, stripping away the unnecessary and refining design concept to essential elements.
- Conversations with a broad range of interested parties formed a critical part of my process. Through extensive research I developed a holistic understanding of the many meanings, challenges, and opportunities that Olympia’s artesian water holds. The process of talking about artesian water with Olympia residents reminded me that all voices are important and all experiences valid. It constantly challenged me to remain flexible and open-ended in my thinking, and to design this way as well.
- Finally, participating through first-hand experience by collecting and drinking artesian water at Well Site #46 gave me an intimate sense of the community that has formed around the resource. I drank this artesian water throughout the process, partly hoping for magical inspiration, but also to embrace the culture of the water; to join the community. I have become a permanent member.



Figure 240. Artesian Well #46 in 2010. (Image courtesy of Don Ashley)

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APPENDIX A: FRIENDS OF ARTESIANS DISBANDING LETTERS

Source for both letters: <http://www.oly-wa.us/artesians/index.php>, (accessed 6.10.2013)

5 November 2008

Dear Mayor Mah and Council Members:

Fifteen years ago, Friends of Artesians was formed to create a permanent, publicly owned artesian well in Olympia. For all these years, we have worked steadfastly to achieve this goal.

When we couldn't get an agreement between Diamond Parking and the City to make the well in the 4th Avenue parking lot a public facility, we turned towards the possibility of drilling a new well on Port property near the Farmers' Market. For the last several years, we thought we were making progress.

That progress has been crucial to our ability to keep the well on 4th Avenue available to the public. The Department of Health has continued to issue an annual permit for the operation of that well only on the condition that we were making such progress, and on the condition that Friends of Artesians pay for monthly testing of the water from the 4th Avenue well.

Today, however, we find ourselves in an untenable position. After many years of trying to broker an agreement between Friends, the Port, and the City, we face a catch 22: We are required to have an agreement between the Port and the City in order to get a permit to drill a test well on the Port site. But the City has told us that you will not sign any agreement until the well has been drilled, tested, approved, and paid for.

There is another problem as well. Friends of Artesians had offered to drill and test the well, raise enough money for an endowment that would cover ongoing maintenance costs, and to turn over ownership to the City. Today, because of the economic downturn, a generous local well driller has been forced to rescind his offer to drill the well for free. In addition, we know that in times like these, charitable giving is more likely to be directed to meeting basic needs than to a project like this. So we are no longer confident that we could raise the funds necessary to endow a maintenance fund.

A third obstacle is the shifting sand of City decision-making. Over many years, we have worked with city staff in good faith. At times, we've felt caught in an endless loop of planning with no real support, and no leader willing to step forward and solve problems. We have also received mixed messages about the City's willingness to own the well. Fears about liability linger, even though we have responded to repeated requests to provide information about other cities that own and manage similar public wells.

Because of all these obstacles, Friends of Artesians has decided to disband. We've concluded that, in spite of our continuing belief in the worthiness of this project, we are not in a position to bring it to fruition. Our existence provides the illusion of progress – but that illusion has become an obstacle to progress.

We know that hundreds of people draw water from the well on 4th Avenue every day. They come from all over Thurston County and beyond. In late summer, when local wells go dry, some people depend on the well for water for their families and their livestock. Many well users believe the water is beneficial to their health.

We also know that artesian water has long been a part of Olympia's unique history and civic identity. Our tests found that the pure water that erupts from that beat-up pipe in the 4th Avenue parking lot actually fell as rain in nearby foothills over 2,000 years ago. It is a powerful link to a pristine Earth, and an invitation for all of us to connect with and learn about the natural world that sustains us. We hope that the demise of Friends of Artesians will give rise to an upwelling of public concern and support for the City to act, either in concert with the Port or on its own. The City's leadership will be needed promptly, because Friends of Artesians will no longer be present to hold the permit for the 4th Avenue well, or to conduct the monthly testing required by the Department of Health. We will continue to pay for testing through February, 2009, to give the City or another entity time to make a decision about taking on this responsibility.

We have not made the decision to disband without grief and sadness. We all still share the same vision we began with 15 years ago, and we still hold out hope that it can be realized. But we've concluded that the City itself must take leadership to make it happen. We fervently hope that you will.

Sincerely, Jim Ingersoll

A further letter to the Port
Ed Gallighan, Director and Commissioners
Port Of Olympia

(To the Commissioners of the Port of Olympia)

Dear Mr. Galligan and Commissioners:

Enclosed is a copy of a letter to the City Council announcing the disbanding of Friends of Artesians as of February 28, 2009. As you can imagine, this was a sad and difficult decision, but we believe it offers the best and only hope for a solution to Olympia's need for an open, flowing artesian well.

Before we disband, we want to thank the Port of Olympia for its tireless, creative and patient work with us to create a well on Port property. The Port has been an exemplary partner, and we deeply appreciate the many ways in which you have helped us over the last several years.

Nick Handy, your predecessor, worked tirelessly with Friends and the City of Olympia in the early years of our joint efforts to find solutions to many problems. Both current and former Port staff – including Heber Kennedy, Andrea Fonteneau, Kari Qvigstad, Sally Alhadeff, and many others – have also worked in good faith to help us keep the dream of a permanent public well moving forward. We commend the Port Commissioners, both past and present, for the Port's responsiveness to our small citizen's group, and for your recognition of the importance of Olympia's distinctive heritage of artesian wells.

Sincerely,

Jim Ingersoll Ph.D.
(address)

APPENDIX B: 2009 ARTESIAN WELL USER SURVEY PUBLIC COMMENTS EXCERPT

Source: "Results of Artesian Well User Survey January 21-25, 2009 by Washington Conservation Corps"

"Results of Artesian Well User Survey January 21-25, 2009 by Washington Conservation Corps"

Public Comments

The survey directed citizens to write any additional comments on the back of the paper. The following list includes all public comments recorded on the survey in alphabetical order.

- 1) A donation of 10 dollars a month is what I would probably give for the well.
- 2) A drop box for money would be stolen or vandalized within 1 week. Spare change is not a funding solution to the well's problems.
- 3) Additionally, I deliver by ship 7.5 gallons per month to my family in Portland.
- 4) Best Water. Why would you ever consider shutting down a perfectly good well and water?? This should be a no-brainer to begin with.
- 5) Contact information included/to be added to contact list (email address)
- 6) Day trip.
- 7) Donation should not to go to Diamond.
- 8) Email me! (email address)
- 9) I fill the water bottle on my bike.
- 10) Free access to an artesian well is an important part of our history and culture - we need a park.
What a tourist attraction it would be!
- 11) Free Water
- 12) Fundraisers twice a year to cover testing costs are a good idea.
- 13) The well is good for dog water.
- 14) A new park should have a drive through and parking for 2 vehicles at a time.
- 15) Help save it!
- 16) Hope we can promote clean water sources for the future. I will pay whatever it costs to get clean water for us (by donating change).
- 17) I (we) appreciate having the well. Very convenient for employees in the downtown businesses. Please keep open!
- 18) I also use the water for brewing beer/wine.
- 19) I depend on this good water.
- 20) I know it is safe, I know other spots but I'd like this well to stay open. My dogs and cats love this water, and dislike tap water-like humans :-)

- 21) I love the well water!
- 22) I love the well
- 23) I love this water. I hope it's always available.
- 24) I love water!!!
- 25) I make beer and ale with this water and then just use it to fill my bike bottles, etc.
- 26) I spend 100+ per week downtown. If the well shuts down, I vow to boycott downtown. I spend more in tips downtown than it would cost to buy bottled water. But then there are issues with bottled water- from plastic bottles that are not safe to social consequences. When people think of "water parks" it's too bad those monstrosities in Federal Way and Grand Mound are what they think of. As Economic Models continue to collapse, we'll need more natural wells, not fewer. If the well shuts down it will mark one more step on the steady march to Fascism (loss of people's choice) (increase in control over all aspects of our lives). Thanks to all those who know this well must not close!
- 27) I want to save the well!!! If you need more help or are forming a committee, etc. Please email me for help. (email address)
- 28) I worry about contaminants at the train station (within 100 ft!)
- 29) I would be much more likely to make one larger contribution and support the well, instead of donating change.
- 30) I would be so upset if the well was not available. This is a very important resource for our community. Free, clean, abundant water. I would like the city to pay for this service.
- 31) I would be willing to support as long as it was leading to a long-term solution. The city of Olympia should take responsibility for developing this solution!
- 32) I would donate \$2-5 per trip.
- 33) I would donate a lot of change!
- 34) I would only contribute to the drop box if it was extremely secure.
- 35) I would rather fundraise or mail [donation] in.
- 36) If the city's spending is so high for the children's museum, why not for the water?
- 37) The well should stay just as it is. I often get a drink or two when I am here. There are barely any fountains around.
- 38) It's a very good social experience many times. It's a good community gathering place and it would be fabulous to enhance the community spirit of the place.
- 39) It's my understanding that water rights are "first use" in the western United States. Legal principal being that water ownership is like mineral rights - not attached to the land. Please research as the oldest continuous user may have control and be able to prevent capping.
- 40) I've come here for years- please leave the artesian well as it is forever! Thank you!
- 41) I've used this water for over 35 years. Before that my parents also used this water. It's the best water in town. This water is the healthiest in Olympia, I know my friends from Portland who love the water and fill up every time they come up to visit me.
- 42) Keep it open.
- 43) Keep it!
- 44) Losing the well would be a great loss.

- 45) Lunch breaks
- 46) My home well has high iron content. I try to use this artesian water exclusively for drinking water for me and my parrots.
- 47) Never seen this in any city. It's great. Save it.
- 48) Nice to meet new people and make new friends.
- 49) I would not donate with each visit, but I would be willing to contribute \$20+ monthly to ensure its continuation.
- 50) (email address) if you need more help.
- 51) Pay a homeless person to collect the donations.
- 52) Please contact us: (name and phone number)
- 53) Please don't get rid of the well! It makes Olympia that much better.
- 54) Please don't take our well out. There is no better water than right here.
- 55) please email me at: (email address)
- 56) Please help the well! I'm a yoga student. Some yoga studios provide this well water because we prefer non-chlorinated and non-bottled water.
Thank you!
- 57) Please keep the well open.
- 58) Please keep this as a public service. I brew beer with this water, and use it for drinking. My tap water tastes of chlorine. - Thanks
- 59) Please preserve the well. It is a wonderful addition to downtown. It is meaningful and a draw, an asset to this fair city.
- 60) Please, please save the well and public space!!
- 61) This well provides water for 30 students in class.
- 62) Registered voter
- 63) Registered voter
- 64) Registered voters (2)
- 65) Rosie's Place at c4s might help
- 66) Running errands, but sometimes come just for water.
- 67) Save the well!
- 68) Serves as an emergency supply.
- 69) Should set up a public park in town
- 70) Suggest putting an easement (legal public access) on the Diamond parking lot in hopes of relieving them of liability.
- 71) Thank you!
- 72) Thanks for supporting the well, it's important for Olympia!
- 73) The artesian well is a huge part of our community.
- 74) The need of water usually makes me go downtown and I do other things too.
- 75) The quality of this water is better for my heart patients because of lower salts.
- 76) The streeters [sic] and veterans need this water. It's our primary source. It's not trespassing. Also it's our history as well.

- 77) The well is my favorite part of Olympia.
- 78) This is my backyard.
- 79) This is often the only source of water for chemically and environmentally sensitive children and adults.
- 80) This seems like an obvious community asset that the city could get good public relations from.
- 81) This well is ideal!! Location, etc. I'd rather there be a fee than a donation. I think our governor should help. We need an artesian well. This one is ideal.
- 82) This well is my sole source of drinking water.
- 83) This well is the only source of water that I can use for internal ingestion. My water has too much iron- due to blasting for building houses. If you close the well, I really don't know what I will do. I sincerely thank you. I cannot afford to buy water.
- 84) Unemployed
- 85) Used as a water source after floods.
- 86) Water should be free!
- 87) Water used to care for stray animals (17) Kitten Rescue. The well location is ACCESSIBLE TO ACCOMMODATE INDIVIDUALS WITH DISABILITIES - DRIVE UP TO FILL.
- 88) We can't afford to lose this resource! I can't make my well water as good as this source due to iron! Please! Please, please keep this!
- 89) We live in the Steamboat Island area and the water is totally undrinkable, only fit for laundry and showering. If the well is closed this will cost a lot of people a financial hardship. Filter systems are very expensive and only are a temporary fix.
- 90) We LOVE the artesian well. It is good for humans and cats in our family! It's one of the things we love best about Olympia! We implore you to preserve our well.
- 91) Why do people need to give money?
- 92) Why not make this a fountain Olympia can be proud of?
- 93) Why should we have to pay for natural water?
- 94) Would like all downtown restaurants to use artesian well water. We need to promote it with PR and possible spa destination city. We could use a piazza.
- 95) Why donate if it was the only way to save the well?
- 96) %@\$*#! Diamond The artesian well is a huge part of the community.

<http://olympiawa.gov/city-utilities/drinking-water/water-quality/Artesian%20Well%20Olympia/~media/Files/PublicWorks/Water-Resources/2009%20Conservation%20Corp%20Survey.ashx> (Accessed 12.10.2013)

APPENDIX C: EXCERPTS FROM PERSONAL EMAIL CORRESPONDENCE

Olympia resident Jim Ingersoll played an instrumental role in advocating public access to artesian water as a leader in the Friends of Artesians group. A passionate supporter of the artesian wells and an eloquent spokesperson able to express the wells' significance within the Olympia community, Jim kindly corresponded with me during my thesis research process. He gave permission to share his thoughts, which are included below as replies to a series of questions.

INGERSOLL 2.19.2013 personal correspondence

1. What do the artesian well(s) mean to me?

The publicly owned and freely accessible artesian well park stands as both sign and symbol in my view. As sign, it points to the water and the well and the history that is extant. Literally...it exists. As symbol it participates in that to which it points. As we drink we are being-as-belonging in human community. The open and flowing water is symbol of open and flowing communication. If we trust and speak truth in relationship we become psychologically/spiritually pristine...authentic...transparent...soulful. I came to Olympia in 1975 as a licensed psychologist to conduct a private practice in family therapy. The artesian well is a secular reality that is a tangible event at a town center...like the center of self we discover in moments of healing, repair and reintegration, whether that occurs within an individual, relationship, family, community or region. The well is a place and an event. - Rev dr Jim

2. If there were no obstacles, what would you envision happening with the wells in Olympia?

Since Appollo 8 in 1968 brought us the image of our beautiful earth we have come to understand more and more how natural sciences reveal the inextricable intertwining of all living systems. To preserve the rain forests multiple governments must cooperate across national boundaries. In Olympia our effort has been to create that conversation across regulatory and governmental boundaries to accomplish a goal that brings unity to

the vision of a public ownership of sacred nature for the health of all. The well is such an unusual opportunity to cooperate politically on behalf of something sacred while upholding the separation of church and state. we can meet both the letter of the law and the spirit of the law because of the legal principal of Beneficial Use... The artesian well offers itself as a jewel in Olympia's crown. It can be a particular. Instance to incite us to Beauty, politically, and in every way to invite visitors, encourage art and design for livability, to celebrate history and ancestral and cultural traditions, encourage economic growth, etc.

APPENDIX D: LETTER TO THE OLYMPIA PARKS DEPARTMENT

LETTER TO THE PARKS DEPARTMENT REGARDING PROPOSED “ARTESIAN COURT” PARK

Public Comment Letter to City of Olympia Regarding Proposed “Artesian Court” well, March 15, 2013

Re: Comments on Proposed Olympia Artesian Court design

Dear Mr. Okerlund,

I appreciate this opportunity to provide comments on the proposed Artesian Court park project. I attended the public meeting held on March 7, 2013 and found it both informative and encouraging. After taking additional time to think about what I heard and learned, I would like to offer the following perspective. First, I am very excited that this project is moving forward. I think it reflects a strong vision, both on the part of the artesian well’s long-term advocates and on the part of city staff and leaders who recognized the merit of this project and helped to move it forward. I appreciate that it is still possible to thoughtfully consider the site’s potential before finalizing the design and moving into the build phase of the project. A few additional observations from my perspective:

1. Additional parks are needed downtown – make this one amazing

This project presents a precious and unique opportunity to build a new park in Olympia’s downtown core. In my personal experience, there isn’t enough public space for people to pause for a restorative break before continuing on errands. Most options require a purchase in exchange for space to linger (with the exception of scattered benches that overlook street traffic). In short, Olympia needs more parks in the downtown heart, particularly for young families and older or tired residents who need a place to relax. Additional public space will only enhance the downtown experience and encourage people to stay longer, also bolstering the local economy This project is an excellent move in that direction.

2. This isn’t just any park

This is one of the most unique sites in the city of Olympia. In fact, the proposed site is so unique that it has the potential to become far more than just another park. I think this fact is critical to appreciate and to acknowledge in the park's ultimate design. It has the potential to reveal layers of Olympia's physical and social history that are part of the story of the park. If designed with this rich history in mind, the site could become an Olympia "destination" as popular as the Capitol Campus or the Farmer's market. Importantly, it could also strengthen Olympia's identity, providing a unique and quirky take on our city.

3. Design with a long-term vision to create a unique city asset.

Because of its potential to be a unique destination and a major part of Olympia's identity, the design must meet the needs of a wide range of potential users – both visitors and residents. It could become a community gem, treasured for generations to come.

4. Retain access for artesian water collection, but don't let that be the only design concern.

There is currently no other approved source of artesian water available to the public, and for this reason, retaining easy access to the artesian well site is a real need and should not be dismissed. The final design should make this water as accessible and hassle-free as possible. However, I am concerned that the voices of those focused on access for water collection (above all other concerns) may overwhelm the rare opportunity to create an amazing civic site. This water is a shared community asset and it can be enjoyed by many people in many ways. Designing the site primarily to accommodate easy vehicle access to the water can't be the best long-term solution for the park - or for our community as a whole. I think it is therefore critical to explore different ways to accommodate this particular need yet equally value the needs of other future park users.

The question of increasing artesian water access at other sites came up at the meeting. This is an extremely complex task, with numerous regulatory and financial issues. I believe that the risks associated with other historic well sites are significant enough that they pose a risk to public health. Is there instead the possibility of establishing a new well site that accesses the artesian aquifer to meet the needs of these community members? The actual cost of addressing this question is something that merits a separate investigation to determine the feasibility, constraints, and options for expanding access to artesian water in Olympia. If community residents are really committed to accessing artesian water, exploring this question needs to be a separate effort, and in my opinion, the cost should be shared by the interested parties rather than placing yet another task in the lap of overextended city staff.

Through compromise the artesian well site could garner many, many more proponents of artesian water. The new park design could take a phased approach to honor interest in exploring additional water access options. The ultimate goal should be to provide users with significant water collection needs an alternative location in order to preserve this park site as a resource for the entire community.

5. Look for alternative City Fleet Parking sites

City Fleet Parking on the property should be considered temporary while alternative locations are explored. This is the ONLY publicly accessible well site in downtown Olympia with the ability to become a wonderful public space. Parking lots are scattered throughout the city. There have to be alternative sites. Convenience for the fleet is not as important as the enhanced quality of life that the new park could create, bringing residents and tax payers to support that fleet.

6. Integrate the history of Olympia in the design. Celebrate the story of artesian water!

One meeting participant argued for recognizing the historic importance of the wells. Consider this in site design! Celebrate the stories behind the well: the original RR depot; Olympia brewery; the 20 years of community advocates working on behalf of the well . . . everyone loves the stories of other people. They might recognize their own stories. Have people write in their memories about the wells. Collect these stories and let them contribute to the site design. During the meeting, everyone smiled at the story of the “artesian” campaign from Olympia brewery. Take that energy of fun, whimsy, and celebration and run with it. The site should be a place where people smile, trade stories, and laugh. Be bold and help continue to make the city amazing, quirky, lovable Olympia.

Thank you for your consideration,
Karin Strelhoff, Olympia Resident

APPENDIX E: WATER QUALITY DETAILS FOR ARTESIAN WELL #46

In its study of the geology, hydrogeology and groundwater flowpaths under Olympia, the Pacific Groundwater Group noted “Because the deep groundwater in the Tumwater Sand artesian aquifer probably was recharged before human settlement, it contains no human-caused contaminants. The upward flow under the downtown peninsula also assures that water-borne contaminants cannot move downward through the aquitard to the artesian aquifer. The contaminants found at several sites . . . can descend only a few feet into the artificial fill before they mix with the ascending fresh groundwater and together flow laterally toward the bay” (PGG 2005, 6).

Comprehensive water samples were taken from Well #46 during the 1997 investigation by hydrogeologist Nadine Romero, including analysis for inorganic chemicals including: nitrates, major cations and anions, metals, cyanide; volatile organic chemicals such as chlorinated hydrocarbons; pesticides and PCBs. With the exception of manganese, no other federal or state water quality action levels were exceeded and Manganese is considered a “secondary” standard or aesthetic standard versus a health criterion, as well as an indicator of groundwater sourced from glacial deposits (Romero 1997, 3). The overall quality of water in Artesian Well #46 meets public health standards. Romero’s report recommended continued, regular water quality sampling and that measures be taken to protect the site from pollution: “It is important for the public to understand the anthropogenic impacts to the well are still possible in the future and that this well may perform as an environmental indicator of our aquifers in the Olympia area (5).” According to the study by the Pacific Groundwater Group, “The long-term prospects for the purity of the drinking water from the artesian aquifer may be best reflected in the water quality of upgradient wells. Several wells owned by the City of Tumwater at the Tumwater Valley Municipal Golf Course and at the Palermo Well field (Robinson & Noble, 1982) draw from the Tumwater Sand aquifer. The wells have been sampled routinely for many years and the water quality has remained high” (9).

Sources:

Pacific Groundwater Group (PGG). “Proposed City of Olympia Artesian Well: Background Information on Groundwater Flow and Quality in Downtown Olympia (Report Prepared in Response to Well Site Permit Denial by Thurston County Health Department),” 2005.

Robinson & Noble, Inc. “Technical Memorandum 1204: LOTT Wastewater Resource Management Plan.” Olympia: LOTT Clean Water Alliance, the City of Olympia, Thurston County Health Department, 1999.

Romero, Nadine L. “Report on the Hydrogeological Investigation Conducted at the Black Diamond Parking Lot Artesian Well,” Olympia, WA, 1997.

APPENDIX F: EXPLORATION OF ARTESIAN WATER DESIGN CONSTRAINTS

Celebration of artesian water might be Olympia's greatest missed opportunity for establishing a uniquely unified public space system. This thesis revealed that artesian wells are found throughout the city and therefore artesian water can define notable locations and establish linkages while also revealing social histories and ecological narratives. Olympia's planning documents outline civic priorities that can use artesian water as a cultural and physical basis for design, weaving disparate locations and activities together. The current state of the city's artesian wells is, therefore, an important consideration. Similarly, the constraints or limitations of the artesian wells must be addressed in design.

Conversations with city and state drinking water managers and engineers as well as site analysis identified multiple design constraints shaping how artesian wells (and well sites) might be incorporated in new public open space projects. To examine the individual constraints at each well site would take significant work beyond the scope of this thesis. Exploring the constraints and design potential of a single site suggests the range of possible challenges at the other well sites. Because of its cultural significance, this thesis examines the constraints specific to Well Site #46. It is important to note that some of the constraints apply only to approved drinking water sources; the other priority well sites would have to meet DOH criteria before they could be considered for provision of drinking water.

Drinking Water Access

- Legal mechanisms have placed limits on the use of groundwater for drinking since groundwater law was enacted in Washington State in 1945 (Washington State Department of Ecology 2013). Laws governing water rights and withdrawals in Washington are found in the Water Code (Chapter 90.03 RCW) and Regulation of Public Ground Water (Chapter 90.44 RCW; both implemented by the Washington State Department of Ecology (Chapter 173-152 WAC). Other potential constraints on groundwater use could involve Endangered Species Act recovery plans, interlocal agreements, Watershed Plans, Water Resource Management Plans and court decisions (City of Olympia 2009, 5-2).
- A legal precedent exists for allowing an open and flowing source of water (such as a free-flowing artesian well) if it serves a higher esthetic, educational, historic preservation good or economic purpose. This precedent is why Well Site #46 is permitted to flow continuously (Friends of

Artesians 2008). Usually wells require a valve to shut off the water when not in use.

- If an artesian well is to provide drinking water, ease of access for people, including those with disabilities, will shape the design of the site significantly..
- If an artesian well is to provide drinking water, it must be possible to collect the water as it comes out of the pipe in the ground; as with a faucet in a sink, water should be collected flowing from the pipe before it hits any other surface (to limit the possibility of contamination).
- After the water hits the ground, there can be no additional “drinkable” access (although use by animals (such as pets) is acceptable, but controversial).
- To avoid contamination of the well site by infiltration of pollutants, a minimum 100 foot diameter “sanitary control” area should be retained around the well site and additional precautions such as no nearby trash or chemical storage, polluted runoff infiltration, automobile access , and so forth, may be imposed. . Designers may be able to mitigate this requirement through other means such as a sealed surface, grading away from the well site, extra water quality tests, or other similar approaches. When appropriate, the site can be managed as a “transient, non-community” water system, which has less stringent regulatory requirements.
- All public drinking water systems require regular monitoring to meet Washington Department of Health standards.

Well #46 Characteristics

- Flow Rate = 10 gallons per minute
- Hydraulic Head (pressure) = estimated to be approximately 3 to 5 feet above existing grade (the fluid’s energy per unit weight (psi)).
- Existing pipe diameter (to aquifer) = 1.8 inches
- Well depth = 90 feet
- Hydraulic Head and flow rate can vary based on season, weather pressure system changes, and tides. The highest pressure/flow rate conditions can be observed in mid-winter during cloudy, high tide conditions and after prolonged rains. This variability is visible and could become a design element.
- The well’s actual location is 40’ south of the existing surface pipe.
- Site Constraints

- No onsite infiltration is recommended, due to historic site use as a railroad depot and the presence of fill soils; infiltration would create too much risk of mobilizing contaminants in the soils.
- Current site slope is approximately <2% in all directions. Additional slope away from the well site is desirable to protect water quality.
- Adjacent buildings and foundations must be protected from water infiltration and the potential damage this could cause.
- Retaining vehicle access is encouraged for maintenance and spatial flexibility (events and so forth)
- Theoretical Design Constraints
- 2 to 3 additional wells likely could be bored at the same site without causing a change in flow rate. However, it is unlikely that the Washington Department of Ecology would issue new water rights permits.
- Any proposed additional wells will need to meet strict DOH well casing/sanitary control regulations.

Philosophical Constraints

- The artesian water at Well Site #46 is at least 1600 years old. It represents the ancient hydrologic journey from land to sea and should be “honored” as a link to geologic time.
- This water is very high quality and emerges without aid from a deep aquifer. Design should honor the inherent characteristics and preciousness of this resource.

