

# **‘Preparing the Soil’ for UC San Diego\***

Land, Thoroughfares and Local Expectations

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*“It was an interesting experiment watching  
a bunch of sailors invent a university”*

Walter Munk

Walter Munk was Professor of Geophysics,  
Scripps Institution of Oceanography

\*The phrase ‘preparing the soil’ is taken from Army Corps of Engineers protocol for removing ordnance from military firing ranges prior to certifying sites for new construction.

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for UC San Diego**

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by

Jack C. Fisher MD  
Historian, UC San Diego Emeriti Association

**Note to Readers:**

**Historical dollar amounts corrected for inflation  
appear in parentheses throughout the text**

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**See also page 60**

**Cover Photo: Aerial view of USMC Camp Calvin Matthews in 1944, a time of maximum  
World War II mobilization (looking westward toward the Pacific Shore)  
Courtesy of USMC Recruit Depot Command Museum Archives**

## Foreword

Historians have traditionally focused on the triumphs of great leaders responding to pivotal events, thus overlooking the political will that can influence a region's social dynamics, its cultural traditions, and its economic development. History can and should feature the unplanned achievements that reshape the future, also the measured investments that generate momentum for larger gains in the future. A careful examination of prior public policy initiatives, and philanthropic investments can reveal why some cities are able to build sustainable assets over time while others cannot.

By focusing on a series of publicly endorsed choices for creative land use, Jack Fisher shows how San Diego citizens and their elected leaders acted to restore a threatened post-WWII economy while at the same time assuring for themselves an even better place to live. Documenting from primary sources a series of policy decisions made over the span of a half-century, he links the founding and development of UC San Diego with circumstances that in time made our city a hub for technological development. This essay serves as an invaluable resource for San Diegans wanting to understand their city's contemporary economy as well as for urban leaders worldwide.

Today, the many institutions and enterprises that flourish on the Torrey Pines Mesa represent one of the most widely respected concentrations of intellectual capital in America today. Collectively, they attract billions of dollars in public and private support leading to countless patents, licensing opportunities, and innovative products derived from ventures in the life sciences, wireless communication, alternative energy, and cyber-security.

Thank you, Jack Fisher for showing how an examination of public policy can inform dreamers and planners everywhere.

Mary Walshok, Professor of Sociology and  
Assoc. Vice Chancellor for Public Programs



**Transforming historic military sites; comparable land viewed looking eastward**



## Introduction

The astonishing growth of the University of California's San Diego campus over a span of six decades can be appreciated more fully by considering how the Scripps Institution of Oceanography (SIO) became a respected local treasure. Moreover, SIO's emergence as a world authority in marine and ocean sciences is better understood by recalling San Diego's pivotal role in the Second World War and the contributions local scientists made to that effort.

By Summer of 1943, the decisive battles of WWII were already fought and won: Midway and Guadalcanal in the Pacific, 2<sup>nd</sup> El Alamein in North Africa, Stalingrad and Kursk on the Eastern Front. Few people at the time could appreciate the historic significance of these defining encounters, not even our nation's ranking commanders, because the critical victories are rarely designated until long after a war is won or lost. Nonetheless, every level of American society remained fully mobilized for another two years, and nowhere was this more apparent than in California's San Diego County.<sup>1</sup>

Prior to 1941, the City of San Diego functioned as a serene residential community, save for the free-spirited sailors who enjoyed shore leaves that often included a junket to nearby Tijuana, Mexico. The city's population was no greater than Modesto, California is today: about 200 thousand. Because of San Diego's protected harbor, the Navy had previously established its headquarters for western operations, including a repair base for the U.S. Pacific Fleet. On nearby North Island lay the nation's pioneering military air station.<sup>2</sup>

Despite two successful cultural expositions conducted in 1915 and again in 1935 to attract a more diversified manufacturing sector, an import from Buffalo, New York, Consolidated Aircraft, served as the city's only major private industry. Tucked between the city's airport and the Marine Corps Recruit Depot, its assembly plant prior to 1942 fulfilled only sporadic orders derived from President Roosevelt's controversial Lend-Lease Act, a move directed at helping the British defend against German aggression.<sup>3</sup>

Throughout World War II, the U.S. Marine Corps' Camp Calvin B. Matthews and its neighbor, U.S. Army Camp Robert E. Callan, served as centers for training and processing troops bound for the Pacific Theater of Operations. After the conflict came to its victorious completion on August 14, 1945, major portions of each facility were designated for a San Diego campus of the University of California, although not without a decade of deliberations confounded by opposing local expectations for the school's intended purpose. After these issues were resolved, three years were required to "prepare the soil" for safe construction, a phrase taken from Army Corps of Engineers protocol for removing ordnance buried within the respective property's numerous abandoned firing ranges.<sup>4</sup>

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<sup>1</sup> Andrew Roberts, *Storm of War: A New History of the Second World War*, London: Penguin Group, 2009.

<sup>2</sup> Lucinda Eddy, "War Comes to San Diego," *J. San Diego History*, 39:1-12, 1993. North Island is today the northern reach of a coastal peninsula.

<sup>3</sup> The former Consolidated-Convair facility is currently used by the U.S. Navy for its Space and Naval Warfare Command. Lend-Lease: "An Act to Promote the Defense of the United States", (Pub.L. 77-11, H.R. 1776, 55 Stat. 31, enacted March 11, 1941).

<sup>4</sup> Camp Matthews formally closed on Oct. 6, 1964 and UCSD officials received their key on the following day. A 50th anniversary was celebrated on Oct. 7, 2014 on the site of the original parade ground.

## A World at War Impacts San Diego

An early morning Japanese attack on Pearl Harbor, December 7, 1941, changed San Diego forever. Owing to a dysfunction of wireless receivers in San Francisco, the U. S. Naval Radio and Sound Laboratory in Point Loma was the first mainland installation to receive notice of the air strike. Panic soon followed reports of Japanese aircraft in California skies, but none were ever seen. When relative calm later returned, San Diegans were overheard musing that their city had lost its climate because all reporting of local weather conditions was forbidden out of fear of giving aid to any waiting offshore enemy force. Strictly enforced blackouts made driving at night hazardous.

Suddenly thrust into a “blitz-boom” as the *Saturday Evening Post* called it, the city’s population climbed from 200 thousand to 300 thousand, almost half serving on active duty. Along with an infusion of federal funds in support of military mobilization came massively subsidized housing projects in Clairemont and in Linda Vista, as well as a proliferation of trailer parks in Mission Valley. Downtown’s red-light district grew in proportion to market demand. After voters approved an easement through Balboa Park, construction began for a highway, today’s CA 163, to facilitate center city access.<sup>5</sup>

Consolidated Aircraft, about to merge with Vultee Aircraft and become Convair, kept expanding its assembly facilities on Pacific Highway to eventually accommodate 45,000 workers, all of them committed to around-the-clock production of B-24 “Liberator bombers” and PB4Y “Catalina Flying Boats.” One or the other came off the assembly lines every sixty minutes (162/week for the duration of the war). Women in coveralls swarmed over the aircraft, some small enough to crawl to the wingtips or inside the engine nacelles. Proven to be more reliable riveters than men, their numbers reached 40% of the line force.<sup>6</sup>



**Consolidated Aircraft’s assembly line for the B-24 ‘Liberator’ bomber.**



**Camouflage netting over Pacific Highway and nearby wartime production facilities.**

The heart of San Diego’s military establishment lay at the perimeter of a harbor whose entrance was protected throughout the war by an anti-submarine net. Wartime assets included the 11<sup>th</sup> Naval District Headquarters, Naval Fuel and Supply Depot, Naval Air Station North Island, Naval Amphibious Base,

<sup>5</sup> Lucinda Eddy, “War Comes to San Diego,” 1-12.

<sup>6</sup> Mary Walshok and Abraham Shragge, “The Rise of the Martial Metropolis,” in *Invention and Reinvention: The Evolution of San Diego’s Innovation Economy*: Stanford Business Books, 2014, pp33-66. San Diego’s vocational high schools taught welding, one of them to an all-female class. Assembly of each B-24 required 360,000 rivets.

Destroyer Maintenance Base, and on a picturesque bluff overlooking the harbor, U. S. Naval Hospital Balboa with several thousand additional beds secured in tents spread over the former Pan American Exposition site. Wartime capacity peaked in 1945 at 10,000 beds making it the world's largest active military hospital.



**San Diego's Destroyer Maintenance Base**



**Repair facilities for Pacific Theater Fleet**

Anybody with enough gasoline ration stamps could if they wanted motor throughout San Diego County and encounter more than fifty military installations operating in support of the Navy, the Marines, the Army and its Air Corps, plus a Coast Guard responsible for protecting the harbor. These sites extended south to the Naval Air Station at Brown Field plus Camp Lockett where a detachment of America's famed Buffalo Soldiers stood guard at the nation's southern border, eastward to the Borrego Springs Maneuver Area, north to the Fallbrook Ammunition Depot and the recently opened Marine Corps Base Pendleton, dedicated by FDR on Sept. 25, 1942 after wartime purchase of the 122,798-acre Rancho Santa Margarita y Los Flores.<sup>7</sup>

## **The Making of a Martial Metropolis**

San Diego's gigantic military enterprise evolved from a rumor in 1900 that the Navy, interested in west coast presence, was looking for a welcoming harbor city where it would establish a coaling station. This prompted San Diego's mayor to re-examine the natural harbor, long serviceable to shallow draft sailing vessels, but not for dreadnought class war ships. A dredging bid commissioned by the City Council came in at \$219 thousand (\$5.5 million in today's dollars). The federal government had previously granted harbor improvement funding for Puget Sound, San Pedro, and Galveston Bay, but Admiral of the Fleet George Dewey disavowed plans for upgrading San Diego's harbor. There the matter stood for almost a decade.<sup>8</sup>

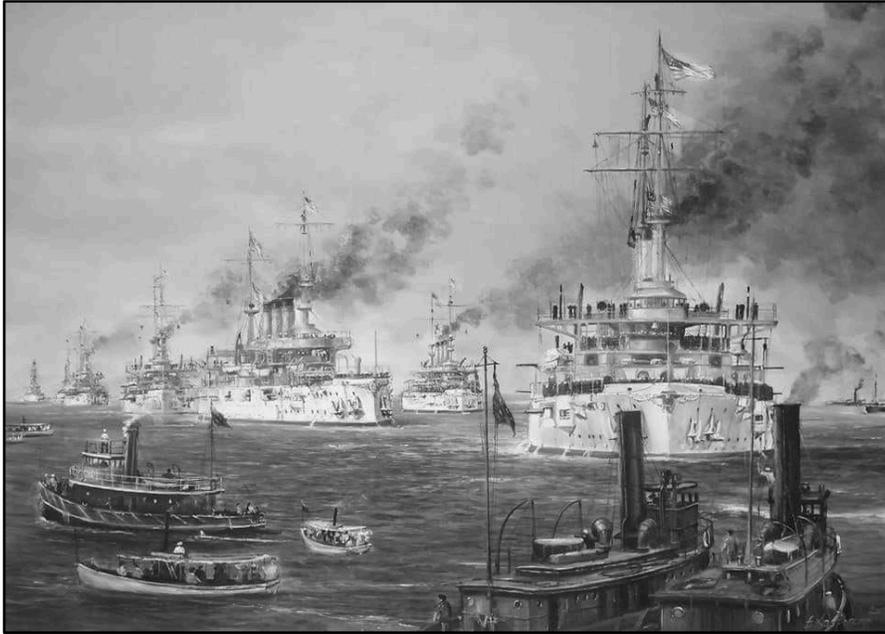
When, in 1908, President Theodore Roosevelt dispatched a convoy of sixteen battleships on a globe-circuiting demonstration of American naval power, San Diego's business community persuaded Admiral Robley Evans, Commander of the "Great White Fleet," to anchor off Coronado long enough to host officers

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<sup>7</sup> San Diego History Center maintains a list of all local military installations from 1846 to the present day. See also Abraham Shrage, *Boosters and Bluejackets: The Civic Culture of Militarism in San Diego, 1900-1945*, Doctoral Dissertation, Dept. of History: UC San Diego, 1998, 147, 486. Shrage points out that even before the surprise attack on Pearl Harbor, Treasury Department officials were referring to San Diego as a "new federal city."

<sup>8</sup> Mary Walshok, *Invention and Reinvention*, 35-41.

and crew for guided city tours, parades, theatrical performances, dinners, and balls, all funded by a private subscription that yielded \$20,000 (\$500 thousand). The effort apparently made a lasting impression because in 1910, Congress approved the first of a series of appropriations to modernize San Diego's harbor, an appropriation facilitated by San Diego's first Democratic Representative, William Kettner, later credited and praised as the man who brought the Navy to San Diego.



**Dreadnoughts and tug boats: President Roosevelt's Great White Fleet - 1908**

The U. S. Marine Corps had conducted local amphibious landing operations back in 1846, a show of strength in support of the Mexican-American War. But when 4<sup>th</sup> Regiment leathernecks returned to San Diego in 1914 under the command of Col. Joseph Pendleton, they came to stay, this time establishing themselves on North Island for what was intended to be a permanent base with a rifle range required for sharpshooter requalification ('every Marine a rifleman'). During preparations for the 1915 Panama-California Exposition, provisional barracks designated for the regiment's 2<sup>nd</sup> Battalion were constructed in Balboa Park.

When the United States entered the 'Great War' in 1917, San Diego was transformed into a military training camp, foreshadowing a role it would relive at mid-century. In addition to its expanding naval presence, the city processed as many as 4,000 Marines at a time in Balboa Park, 5,000 infantrymen at Fort Rosecrans, 2000 aviators on North Island, and 28,000 additional troops at Camp Kearney, a 12,000-acre site north and east of downtown San Diego. When soldiers returned from France, they brought with them influenza, at times called Spanish Flu because Spain reported its experience with the disease while combatant nations kept secret their equally severe exposures. The disease quickly overwhelmed the city's medical institutions including San Diego County Hospital, Mercy Hospital, and a newly opened Scripps Clinic in La Jolla.<sup>9</sup>

It was President Roosevelt's son, Theodore Jr. who in 1923 as Acting Secretary of the Navy signed Order 78 establishing for San Diego a permanent naval base, the nation's largest on the west coast. When

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<sup>9</sup> Molly McClain, *Ellen Browning Scripps*, 175-177.

North Island's facilities were transferred to the Army Air Corps, the city granted 500 additional acres to the 232 acres previously purchased for a Marine Corps Recruit Depot (MCRD). First commissioned in 1921, it remains to this day the nation's largest Marine basic training facility. Rural land suitable for a rifle range was identified thirteen miles north of the base. A short-term lease of 363 acres preceded the government's purchase of 545 acres. Long referred to as the Marine Rifle Range, the facility was renamed in 1942 for Brigadier General Calvin B. Matthews, a distinguished marksman first honored in the 1930s.<sup>10</sup>



**USMC Camp Calvin B. Matthews (viewed looking eastward) - 1944**

## **Wartime Thoroughfares**

By 1943, motorists traveling south from Los Angeles to San Diego faced the Torrey Pines Grade and two choices: the original two-lane switchback which was notoriously unwelcoming to underpowered vehicles, or a new grade opened in 1932 as a parkway with tree-lined median extending into San Diego, part of a newly designated US 101, the “Million Dollar Highway,” completed in 1933. Either choice brought travelers the momentary reward of passing through picturesque Torrey Pines City Park (later designated Torrey Pines State Natural Reserve) before encountering the frenzy of U. S. Army Camp Callan functioning day and night on 710 ocean-front acres leased from the City of San Diego.<sup>11</sup>

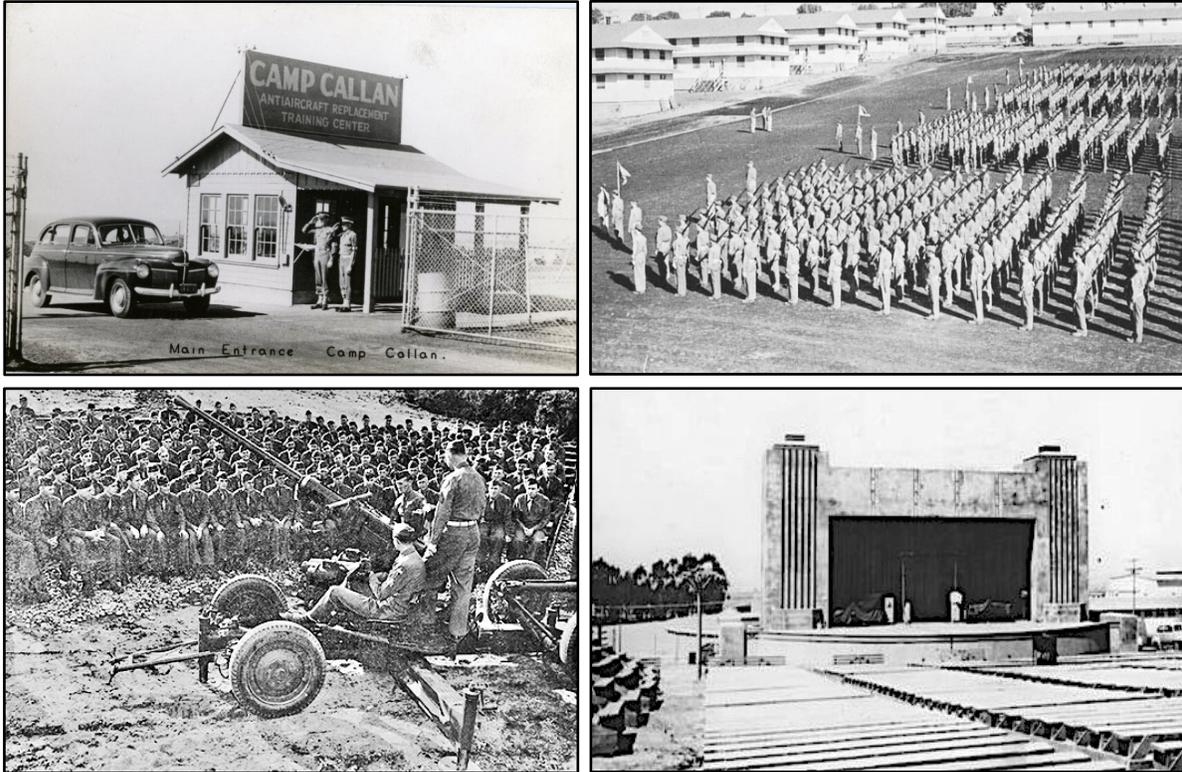
Comprised of nearly 300 hastily built wooden structures, the base housed 15,000 troops and staff at a time. There were barracks and mess halls, six post exchanges, three chapels, medical facilities for 900, a reservoir filled with 4.5 million gallons of water, numerous warehouses, an incinerator, and several small arm firing ranges. Obstacle courses imparted skills needed for an invasion of the Japanese home islands including one replicated village dubbed “Little Tokyo” with booby traps and simulated land mines. Where UCSD's Torrey Pines Administrative Center now stands, an amphitheater could accommodate 5000 troops for

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<sup>10</sup> Author is grateful for assistance from Ellen M. Guillemette, Archivist for the Command Museum, Marine Corps Recruit Depot (MCRD) San Diego.

<sup>11</sup> A short segment of historic US 101 remains intact at the northern end of the UCSD campus. Camp Callan was named for Major General Robert E. Callan, an honored veteran of the Spanish-American War.

entertainment from stars like Bob Hope and Jack Benny. On a site now occupied by the Salk Institute stood a chemical warfare training center with two gas chambers where troops learned to differentiate phosgene from mustard gas before taking appropriate precautions. While the wartime use of toxic gas was banned by the Geneva Protocol of 1928, military leaders weren't taking any chances.<sup>12</sup>



**Camp Robert E. Callan on 710 development acres leased for the war from the City of San Diego**

Conceived as a coastal defense facility, Camp Callan's mission evolved as the character of the war changed. Soon after the victorious Battle of Midway in June, 1942 with loss of four Japanese carriers and hundreds of battle-seasoned pilots, the threat of a West Coast invasion was believed remote so the base became a re-training center for amphibious landings in the Pacific. The firepower issuing from coastal artillery led to the designation of an offshore hazard zone extending from La Jolla's oceanographic pier northward past Del Mar to Solana Beach. Only on weekends was recreational sailing allowed within these boundaries.

Motorists leaving downtown San Diego for the beach communities could use Grand or Garnet Avenues to cross Pacific Beach. Turning northward into La Jolla, they passed by the Naval Anti-Aircraft Gunnery Training School, a site where the original concrete foundations remain to this day. Between 1941 and 1945, twenty million rounds of ammunition were hurled offshore at airborne targets towed by light aircraft. The Navy Shore Patrol stood continuous watch over this facility, not because of unruly sailors or the risk of sabotage, but to fend off neighborhood youth on the prowl for stray ordnance.<sup>13</sup>

<sup>12</sup> Judy Schulman, "World War II Triggers Weapons Training Center," *Traditions: San Diego's Military Heritage*, July 1994, 2-13. Judy Schulman, "Torrey Pines in the Days of Camp Callan," *Torrey Pinecone, Bulletin Torrey Pines Docent Society*, Dec. 2012.

<sup>13</sup> Silvani, George F., *From the Files of the La Jolla Historical Society*, La Jolla Hist. Society, 2009, 50-53.



**Anti-aircraft Gunnery School at Bird Rock in La Jolla; SIO wartime campus at La Jolla Shores**

Two miles north of La Jolla Cove lay the seaside campus of the University of California's Scripps Institution of Oceanography (SIO) where wartime research was conducted in its laboratories. The road beyond SIO, a switchback ascending to the Torrey Pines Mesa, intersected with US 101. Choices at this junction included a pause at the Flying A Service Station and its café, continuing westward on [Old] Miramar Road, or turning on to US 101.

Motorists traveling from downtown San Diego on U.S. 101 through Rose Canyon might have passed as many as 9000 recruits marching north alongside the highway bound for their small arms (meaning rifle and pistol) training. Throughout the war years, Camp Matthews echoed the sound of several thousand M-1 rifles at a time as aspiring marksmen blazed away at their targets. Three weeks later as fully trained Marines, they marched back downtown to board troop carriers bound for the next amphibious landing, some never to return.

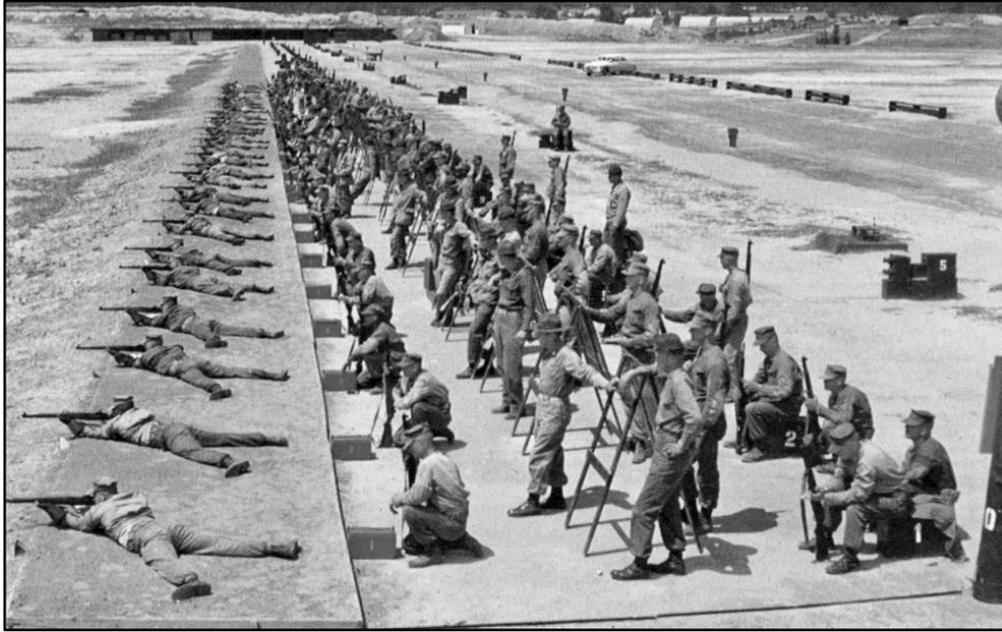
More than one million Marines earned their qualification during Camp Matthews' forty-five years of operation, among them a future Chancellor of UC San Diego, John Galbraith, and President Kennedy assassin Lee Harvey Oswald, whose impressive target scores would later attract the interest of FBI agents and members of the Warren Commission investigating the assassination.<sup>14</sup>

The facility had initially functioned with a solitary range, expanding to three firing ranges in the 1930s. Tents were gradually replaced with barracks. But an accelerated building program beginning soon after the attack on Pearl Harbor increased training capacity to fifteen ranges. Also completed: an administration building, many more barracks, dozens of Quonset huts, four mess halls with a combined seating capacity of 4600, a post exchange and a post office, swimming pool and an open-air theater, all of this surrounded by a sea of tents pitched over platforms. Armed guards stood watch day and night over seven enormous magazines holding thousands of weapons and several tons of ordnance.<sup>15</sup>

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<sup>14</sup> Lee Harvey Oswald received his basic training at MCRD San Diego, and small arms qualification at Camp Matthews. His target scores easily qualified him as a 'Sharpshooter.'

<sup>15</sup> USMC initially leased 363 acres from the city in 1917 and began using the land for marksmanship training in 1918.



**One of fifteen Camp Matthews firing ranges**

Training operations required 700 instructors and a large support staff, many of them women responsible for keeping track of target scores. Range ‘H’, extending from the site of today’s Sheraton Hotel to land now occupied by a Mormon Temple, was designated for 60mm mortar, hand grenade, rocket-propelled grenade (aka ‘bazooka’), and flame thrower proficiency. Qualification rates averaged ninety percent; re-qualification rates approached ninety-nine percent, in time confirmed by testimonials from Japanese prisoners on Guadalcanal: “American rifleman better; always hit target.”<sup>16</sup>

A few months after final victory came, an incident marred the close to perfect safety record at Camp Matthews, one that had nothing to do with rifle range operations. At midday on Dec.18, 1945, a truck with twenty tons of ammunition taken from decommissioned destroyers in San Diego’s harbor and bound for an ordnance depot near Fallbrook, suddenly broke into flames as it passed by the Marine facility. The driver, fully aware of a looming tragedy, pulled over and ran to notify military fire control experts, then joined in a frantic effort to persuade families of military officers living in three hundred temporary quarters nearby to run as far and as fast as they could go.

Three successive explosions occurring within ninety minutes shook the ground in downtown San Diego and were heard on Palomar Mt. ninety miles away. Miraculously, no one was injured but nearly every structure within a one-mile radius sustained damage. The enormous crater left by the final explosion, near today’s Gilman and Osler Drive intersection, was eventually filled in <sup>17</sup>

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<sup>16</sup> Archives, MCRD Command Museum. See also Roxanne Phillips, *Review of a History of U.S. Army Camp Robert E. Callan and U.S. Marine Corps Camp Calvin B. Matthews*, prepared for UCSD Campus Planning Office, 1998.

<sup>17</sup> Corey Levitan, “Forgotten blast from La Jolla’s past,” *La Jolla Light*, July 18, 2019. Also based on recollection of San Diego pediatrician Fred Frye, who at age eleven felt the ground shake in Hillcrest where he lived at the time.

## UC Comes to La Jolla



**Professor William E. Ritter**



**Ritter's temporary marine laboratory**

Decades before SIO scientists conducted research in response to wartime priorities, William E. Ritter, Chairman of the University of California's Zoology Department, was looking for sites where he might collect unclassified specimens of ocean marine life. The nearly land-locked waters of San Francisco Bay were too heavily influenced by river effluent. Extensive dredging had destroyed the collecting grounds of San Pedro harbor near Los Angeles. So, in 1903, he turned to San Diego, and with timely assistance from two San Diego physicians, Fred Baker and his wife Charlotte, Ritter pursued his studies in a small temporary laboratory established within the Hotel del Coronado's boathouse.<sup>18</sup>

Soon after he benefitted from an introduction to one of Baker's poker partners, newspaper magnate Edward W. Scripps, known to family, friends, and colleagues simply as 'E.W.'" Citing the man's ownership of newspaper stock worth millions, Baker advised: "...he takes little interest in biology but he has in the past come to the rescue generously." Scripps took an immediate liking to the scientist while admitting that, "I am more interested in this damned human animal than any marine organism." Nonetheless, he forwarded a check for \$500 (\$14 thousand), and referred Ritter to his sister Ellen with a hint that she might give him another check. Indeed, she did and many more after that.<sup>19</sup>

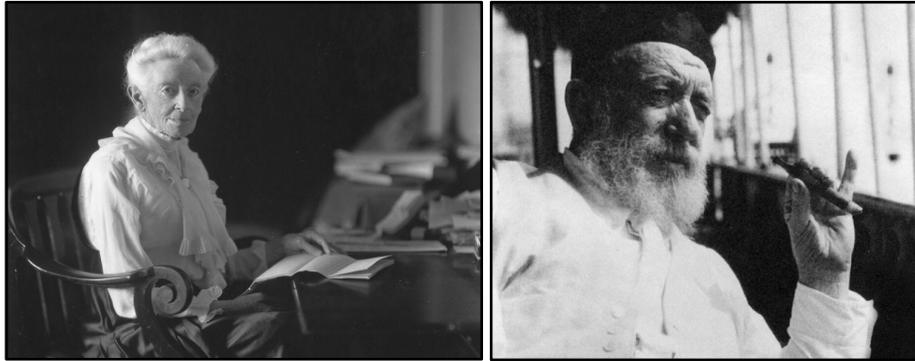
Ellen Browning Scripps, eighteen years older than E.W., was a powerful influence on her brother's early life and subsequent career. Unusual for a woman of her time, she earned a sizable fortune herself, having worked hard and invested systematically in the Scripps family newspaper enterprise. After leaving the Midwest with her brother, she co-invested in 600 acres overlooking Mira Mesa near San Diego where they built Miramar, an estate named for Mexican Emperor Maximilian's Adriatic Palace. When she considered seaside communities including Del Mar and La Jolla for a home, E.W. discouraged any interest in Del Mar where he saw families feuding over a land developer's initiative. So, Ellen chose La Jolla, a favorite summer camping

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<sup>18</sup> Helen Raitt and Beatrice Moulton, *Scripps Institution of Oceanography*. Ward Ritchie Press, 1967, 35-44. Having studied marine life in Puget Sound and Alaska, Ritter's clear preference was for waters off Southern California.

<sup>19</sup> Molly McClain, *Ellen Browning Scripps: New Money & American Philanthropy* (Lincoln: U Nebraska Press, 2017) 63-79. E.W. forwarded additional gifts for several years.

ground for San Diegans. At the age of 58 and with a fortune estimated at \$202 thousand (\$5.2 million) she commissioned the building of a custom house on a bluff overlooking the Pacific. Following completion in 1892, she gave it the name South Moulton Villa after a street in London where she was born.<sup>20</sup>



**Ellen Browning and Edward W. Scripps, early backers of marine science in San Diego**

Already fascinated by sea life, she had visited aquariums in London and Berlin. Of particular interest to her was underwater bioluminescence, the blue-green emission generated by phytoplankton, a phenomenon that she called “soft liquid fire.” It didn’t take much for Professor Ritter to capture ‘Miss Ellen’s’ interest. She particularly admired his conviction that a study of marine fauna was “a view into the origins of life itself.” After visiting the professor in his Berkeley laboratory, she wrote a check for \$1,500 (\$41 thousand).

Given reasonable assurance of continued Scripps family backing, Ritter, the Bakers, and several friends established the Marine Biological Association. Supportive citizens raised nearly \$1,000 (\$20 thousand) to finance a move to La Jolla and construction of a cottage they dubbed “the little green laboratory at the Cove,” on the site of today’s La Jolla Cove Bridge Club. Another \$300 (\$7 thousand) came from Scripps family sources. But as Ritter later explained to Miss Ellen, his studies depended on “water unsullied by urban contamination,” so yet another move was forced by the city’s casual approach to sewage disposal.

Meanwhile, the City of Del Mar was still competing for the Scripps family’s attention. Believing that a biological station with potential for a university linkage might attract more desirable inhabitants, the South Coast Land Company offered a forty-acre tract, a septic tank, construction of a wharf, and electricity. But E.W. would have nothing to do with land speculators, nor did he want to interrupt the connection his sister was establishing with her personally chosen community. Instead, he identified uninhabited beachfront property north of the Cove’s congestion for use of the marine scientists.

An arrangement with the City of San Diego allowed for auction of 170-acre Pueblo Lot #1298. Although several realtors were present on Aug. 10, 1907, the Marine Biological Association submitted the only bid for \$1,000 (\$25 thousand). Located at the north end of “Long Beach,” later renamed La Jolla Shores Beach, the site was considered “remote and impractical for development” because so few acres existed on level ground. The city agreed to provide a water line, and E.W. commissioned the building of a graded road to the laboratory, known today as La Jolla Shores Drive. Ellen furnished an additional \$10,000 (about \$200 thousand)

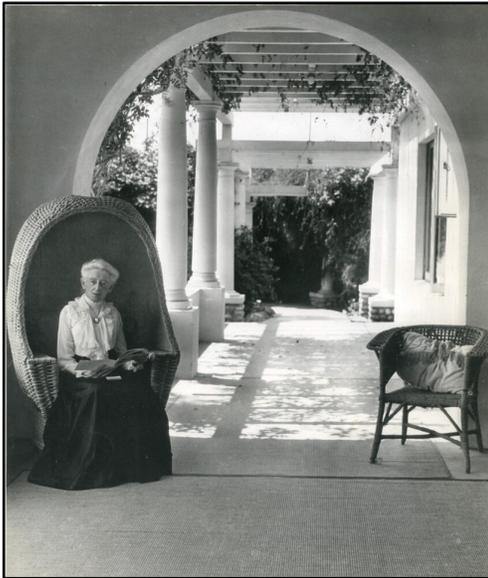
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<sup>20</sup> Historian Molly McClain cites financial information derived from Scripps family letters, diaries, and account books not available before the late 1990s. Prior biographies underestimated Ms. Scripps net worth and philanthropy. Mostly invested in newspaper stocks, her fortune eventually grew to an estimated \$30M by the 1920s (about \$600M today).

to extend that road up the grade beyond the biological station (thus ‘Biological Grade’), then eastward to their Miramar estate. Because automobile engines in the 1920s delivered only 20-30 horsepower and carburetors drew fuel by gravity feed, drivers often needed to climb the grade in reverse.<sup>21</sup>

In January, 1906, Ellen and E.W. decided to honor their late brother George by announcing an endowment of \$50,000 (\$1.4 million). UC President Burton Wheeler, impressed by Ritter’s fundraising prowess, attended a gathering at Ellen’s home along with UC Regent James McKinley. We can imagine how gratified a Class of 1859 alumna of Knox College, in Galesburg, Illinois must have been for the attention given her by a leading university educator.

Ellen encouraged Ritter to make his permanent home in La Jolla, offering to add \$100 thousand (\$2.6 million) to the endowment plus \$150 thousand (\$3.9 million) if he would serve as scientific director. She also pledged land and structures, a library and a public aquarium, all with a combined value of \$300 thousand (\$7.6 million). UC President Wheeler returned on July 12, 1912 to accept these gifts for the Regents as the Scripps Institution for Biological Research, later renamed the Scripps Institution of Oceanography (SIO).<sup>22</sup>



**Ellen Browning Scripps in her LJ home**

**Financial Support from Ellen and E.W. Scripps for marine studies and an oceanographic institution.**

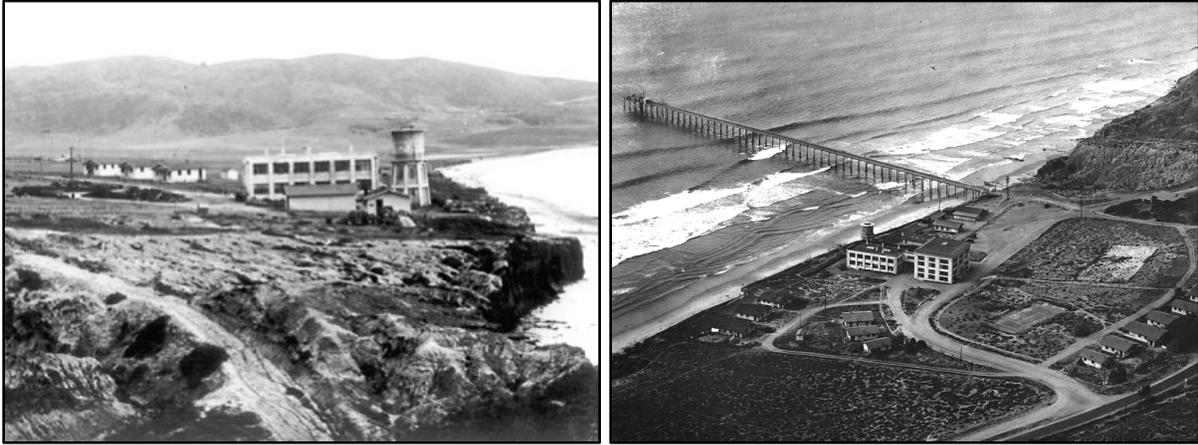
1903	\$ 2,000	(\$.55 thousand)
1905	\$ 50,000	(\$1.4 million)
1910	\$250,000	(\$6.5 million)
1915	\$100,000	(\$2.4 million)
<b>Total</b>	<b>\$400,000</b>	<b>(\$10 million)</b>

Temporary structures served as the association’s laboratories while planning proceeded for a permanent facility. Several cottages, some still standing, were built to house scientists and decades later, graduate students. The first permanent building, designed by the noted San Diego architect Irving Gill and named for George H. Scripps, housed laboratories at ground level and upstairs, a home for Ritter and his wife. Now called the ‘Old Scripps Building,’ its offices and upgraded laboratories remain in full use.<sup>23</sup>

<sup>21</sup> This purchase of Lot 1298 amounted to \$150/acre in 2021 dollars; if an entire acre of La Jolla Shores land were still available today, it would command \$millions in the real estate marketplace.

<sup>22</sup> Grant Deed by order of the Superior Court of the County of San Diego on 8<sup>th</sup> Day of March, 1912 transferring Pueblo Lot 1298 from Marine Biological Association to The Scripps Institution for Biological Research of the University of California but not recorded until April 6, 1914 when required signatories returned from a Western Pacific expedition.

<sup>23</sup> Some cottages, fully renovated, remain in use; the Martin Johnson House, serves as a venue for social events.



**First permanent SIO building named for George Scripps; pier completed in 1916; rebuilt in 1988.**

In 1915, Ellen donated another \$100 thousand (\$2.4 million) for an aquarium and construction of a pier. Supported by reinforced wood columns, the pier allowed for ocean water monitoring, the mooring of diving support vessels, and a continuous supply of seawater for laboratories and aquariums. Today’s Ellen Browning Scripps Memorial Pier, completed in 1988, is a reinforced concrete replacement of the 1916 pier.<sup>24</sup>

Following WWI, Director Ritter issued a public plea for more study of the oceans in a world still prone to global warfare. But competition for money to support unconventional topics like oceanography was understandably keen and remained so throughout the 1920s and 1930s. SIO exploited the availability of Works Progress Administration (WPA) funding for both skilled and semi-skilled workers to provide lab assistance and clerical support as well as to complete necessary facility improvements. A new director, T. Wayland Vaughan, found himself in the difficult position of advising the Rockefeller Foundation how to support oceanographic research, then standing by as \$2.5 million (\$37 million) was granted for completion of a competing Woods Hole Oceanographic Institution in Massachusetts. SIO received a “mere \$40,000” (\$600 thousand). Unlike Woods Hole, however, SIO continued to benefit from its Scripps family endowment.<sup>25</sup>

Notable years influencing the direction taken by SIO that would also shaped the future of higher education in San Diego include the following: 1929 - Pomona College geology graduate Roger Revelle, with a fear of heights, redirects his focus from mountains to oceans; 1930 - Revelle falls for and marries a La Jolla girl, Ellen Scripps Clark, who happens to be the grandniece of Ellen Browning Scripps; 1931 - Revelle completes a UC Berkeley fellowship and comes to La Jolla for graduate study in oceanography; 1937 - Revelle is invited to join the SIO faculty after successfully defending his doctoral thesis, a chemical study of sea floor samples leading to exploration of ocean bottoms for natural resources.<sup>26</sup>

<sup>24</sup> Molly McClain, *Ellen Browning Scripps*, 77. As of 1915, total Scripps family philanthropy on behalf of SIO amounted to at least \$400 thousand, the equivalent of \$10 million in 2021 dollars.

<sup>25</sup> Raitt & Moulton, *Scripps Institution of Oceanography*, 108-110.

<sup>26</sup> Revelle, who was required to defend his thesis at UCLA, vigorously objected to Regent Edwin Pauley’s later proposal that UCLA oversee all of UCSD’s operations including graduate degree programs.

## SIO Helps Win the War!

In 1934, while serving as a visiting scientist on a submarine tender exploring waters off Alaska, Revelle surmised correctly that in case of war, the Navy might have an interest in the science of oceanography. Persuaded by that vessel's captain to enlist in the Navy if he didn't want to be drafted by the Army, Revelle secured a commission as Lieutenant J. G. in the U. S. Naval Reserve, thus positioning himself to nurture an important linkage between SIO and the military. Summoned later to the nation's capital and initially assigned to the Navy Bureau of Ships, he would later serve as Head of the Geophysics Branch of a newly conceived Office of Naval Research (ONR), one of the very first government agencies committed to providing financial support for basic science studies. Revelle's contribution to the formation of ONR provided an incalculable and enduring financial impact on SIO operations and growth.<sup>27</sup>

Meanwhile, SIO was adapting to new leadership, Norwegian meteorologist and oceanographer, Harald Sverdrup, who had initiated his ocean studies as a scientist for Roald Amundsen's seven-year North Polar Expedition (1918-1925). Norway was one of the few nations in the world that recognized oceanography as a valid scientific discipline. Sverdrup transformed the SIO curriculum and redirected its faculty. He placed emphasis on the collaborative disciplines, not only marine biology but also physics, chemistry, geology, and more. He was later praised for "taking SIO to sea," stressing the importance of direct study of the ocean depths rather than focusing on more limited shore studies.

Sverdrup assumed control shortly after the institution's principal research vessel, a converted purse seiner, suffered a mortal explosion in 1937. E.W.'s son Robert came to the rescue by convincing a Hollywood star to give up his luxurious yacht *Serena* for the benefit of marine science. Refitted for its research mission and re-christened the *E.W. Scripps*, the vessel served with wartime distinction and then for another two decades. Equipped with a newly developed and still classified bathythermograph, scientists on board could track currents and so-called 'water masses,' then calculate ocean micro-temperatures.<sup>28</sup>

An 1100-page textbook completed by Sverdrup soon after he joined SIO and described by a colleague as "four pounds and all muscle," confirmed his international authority in the emerging field of marine sciences. Released in 1942, *The Oceans: Their Physics, Chemistry, and General Biology* was made available only to a limited American, Canadian, and British readership because much of its content was considered to be of strategic wartime importance. Only after the war was Sverdrup's pioneering monograph republished for worldwide distribution.<sup>29</sup>

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<sup>27</sup> Revelle served on the U.S.S. Bushnell. The Office of Naval Research was authorized by an Act of Congress, Public Law 588 signed Aug. 1, 1946 by Pres. Harry S. Truman.

<sup>28</sup> Raitt and Moulton, *Scripps Institution of Oceanography*, 122-123. A purse seiner is a fishing vessel outfitted with a large net for harvesting self-aggregating species like tuna.

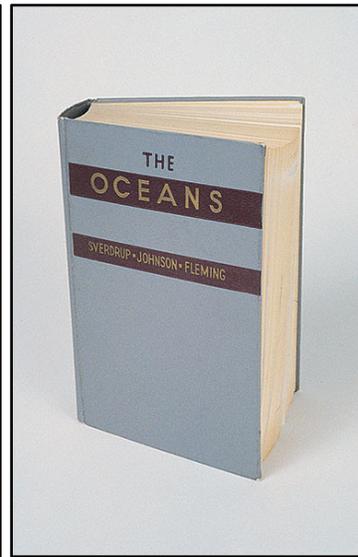
<sup>29</sup> Harald U. Sverdrup, Marin C. Johnson, Richard H. Fleming, *The Oceans: their Physics, Chemistry, and General Biology* (New York; Prentiss Hall, 1942). Elizabeth Noble Shor, *Scripps Institution of Oceanography: Probing the Oceans, 1936-1976*, Tofua Press, 1978.



*R/V E.W. Scripps*



SIO Dir. Harald Sverdrup “four pounds and all muscle”



Throughout the war, “objects of inquiry suddenly shifted from U.S. coastal marine biology a la Ritter to matters of underwater sound and target detection,” according to Robert Knox, former SIO Assoc. Director of Ship Operations. Because the ocean is opaque to light and transparent to sound, SIO scientists focused on military applications of high frequency sound waves, leading to the development of **SO**und **N**avigation **A**nd **R**anging (**SONAR**). For the acoustic experts who came from universities and Hollywood studios and assembled at the Navy’s Radio and Sound Laboratory in Point Loma, the oceans soon revealed the nature of its deep scattering layer, otherwise known as “false bottoms,” also the so-called “snapping shrimp beds.” These proved to be sound phenomena that submarines could hide behind as desired, or else exploit as they entered, enemy-controlled ports undetected. SONAR quickly became the accepted technology for target surveillance, identification, and destruction.<sup>30</sup>

Other contributions included smoke screens for shielding vessels from aerial attack, improved search and rescue protocols based on study of life rafts adrift in shifting winds and currents, navigational charts imprinted on water-resistant handkerchiefs, and the use of plankton nets towed behind life rafts as an emergency food source. These lifesaving efforts and much more were products of the University of California’s Division of War Research (UCDWR), continuing post-war as the Marine Physical Laboratory operated jointly by UC and the Navy.<sup>31</sup>

Also important to the military were conditions existing on beaches selected for amphibious operations, a challenge that attracted the interest of a research duo sidetracked by their abrupt loss of security clearance in March of 1942. One of them was Director Sverdrup and the other was his graduate student, Austria-born Walter Munk. A recently graduated Cal Tech geophysicist studying at SIO, Munk found that the Army was less troubled by the Navy’s security concerns; in fact, he was recruited to share his ocean knowledge with the Air Corps Weather Directorate in Washington, DC. Told of planning for an invasion of North Africa, Munk was

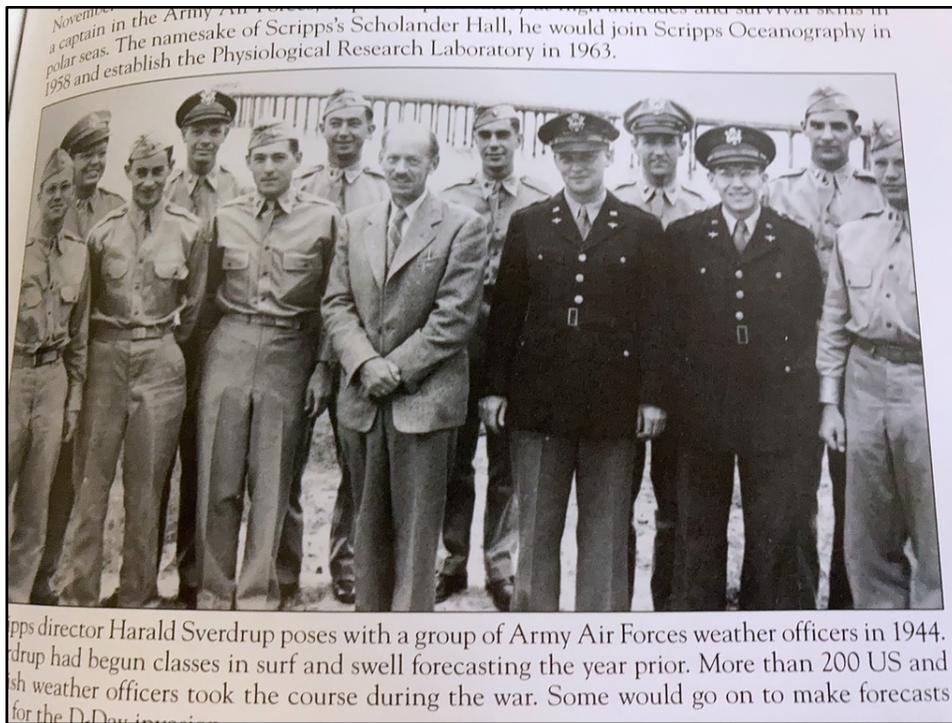
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<sup>30</sup> Robert Knox, “Maritime Technology Innovation in the Pacific: Past, Present, and Future,” *Journal of Pacific Maritime History* (Maritime Museum of San Diego) Summer, 2012.

<sup>31</sup> Raitt and Moulton, *Scripps Institution of Oceanography*, Ch. 13, “War, Waves, and Reverberations, 137-151.

sent to observe practice landings on a North Carolina beach. Immediately apparent to him were the surf limitations of the landing craft in use. Amphibious operations, Munk concluded, could surely benefit from effective forecasting of shoreline surface conditions.<sup>32</sup>

Sverdrup, in the meantime, had been summoned to Washington to assist Norway's diplomats-in-exile following Nazi occupation. He and Munk joined efforts, first in the capital and later back in La Jolla. Their respective wave calculations allowed them to predict surf intensity based on local weather conditions. Consecutive teams of Army and Navy meteorologists traveled to SIO for a six-week course on the principles of "sea, swell, and surf" forecasting. 'Sea' represented wave motion expected from local geographic conditions; 'Swell' represented wave action produced by immediate weather conditions; 'Surf' is the shoreline manifestation of sea and swell. Their lifesaving contributions were both unprecedented and applicable to amphibious combat operations worldwide. For example, an historic 24-hour delay of the June, 1944 invasion



of Europe was based on a surf forecast issued by members of one SIO-trained team, sparing the lives of many thousands at risk for drowning in heavy seas off the Normandy coast of France.<sup>33</sup>

<sup>32</sup> Walter Munk and Deborah Day, "Harald U. Sverdrup and the War Years," *Oceanography*, 15: 7-29, 2002. Prof. Munk, interviewed by the author in March, 2017, praised the Higgins Boat, later made famous following its use in several amphibious landings. He also spoke of his search for weather data off the coast of North Africa. The nearest he could find came from weather data recorded by Pan American World Airways whose Clippers refueled in the Azores.

<sup>33</sup> Security clearance was re-established for Munk, but not for Sverdrup who left SIO in 1947 to become Director of the Norwegian Polar Institute. While they worked in DC, the Army kept them both under surveillance. Munk's wife, Judith, later obtained Sverdrup's FBI file using Freedom of Information Act (FOIA) protocol to learn that four SIO colleagues had cast doubt on the loyalty of Sverdrup and Munk during FBI inquiries about foreign nationals.

According to SIO geologist Douglas Inman, a Marine veteran himself, “SIO surely helped win World War II.”<sup>34</sup>

## Post-War Developments

A final victory brought with it a sudden deceleration of San Diego’s industrial momentum to less than ten percent of peak wartime production, prompting someone to label the city a “broken down boomtown.” Workers at Solar Aircraft, today’s Solar Turbines Division of Caterpillar, found themselves making stainless steel caskets instead of airplane components. Corporate visionaries, fearing a contraction of the region’s manufacturing capacity or worse, a recession of the severity that gripped the nation followed WWI, pondered the unprecedented events that brought the war to its sudden end and envisioned for San Diego a commitment to nuclear innovation.



**Aug. 14, 1945 victory celebrated in San Diego    San Diego harbor with surplus fleet awaiting salvage**

In step with this strategy was John Jay Hopkins, wartime CEO of the submarine manufacturing Electric Boat Company, who was assembling component divisions for General Dynamics, an emerging Cold War conglomerate. One of these was San Diego’s Convair and another was a new applied research facility to be called General Atomics sited on city land east of former Camp Callan. This army facility was declared surplus after all leases terminated in 1946. The city purchased existing structures, sold the dissembled building materials at cost to returning veterans, an enlightened move that resulted in 1500 newly built homes.

Meanwhile, Hopkins negotiated a transfer of land nearby for his research facility. General Atomics Division of General Dynamics was founded on July 18, 1955, its motto: “Harnessing the power of nuclear technologies for the benefit of man.” What Hopkins wanted next was a San Diego branch of the University of California located as close as possible to the General Atomics campus.

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<sup>34</sup> Doug Inman’s declaration is recalled from a personal conversation soon after the author joined the UCSD faculty in 1975. Inman was proud of his family’s contributions to the war effort: his sister served as an Army nurse and his mother operated a forklift loading military transport ships departing San Diego for the Pacific Theater of Operations.



**John Jay Hopkins, Founder, General Atomics Division of General Dynamics**

Returning to La Jolla in 1948 from his duty in Washington, Roger Revelle brought with him an expanded vision for SIO, an institution he left behind with a single functioning research vessel, three permanent buildings, and twenty-six staff. On return, he found four ships operational, 250 faculty and staff, and an annual budget of \$1M (\$10M). The next decade was filled with landmark expeditions of discovery, well suited to Revelle who had long venerated Portugal’s Prince Henry the Navigator and compared the southwestern continental locations of Lisbon and San Diego. The institution’s fleet was in time replaced, not with outmoded fishing trawlers or discarded yachts but instead with naval vessels destined for mothballing but instead refitted for ocean research. Henceforth, all research vessels operated by SIO would remain assets of the U. S. Navy.



**Roger Revelle (2<sup>nd</sup> from left) prior to and soon after returning from Naval service.**

The 1950 Mid-Pac Expedition made national news when its scientists announced the Pacific Ocean floor was mountainous and not flat, expanding rather than contracting, and young in geological time instead of old, all of this consistent with the new planetary science of plate tectonics, based on a theory of drifting continents proposed in 1915 and confirmed after WWII by exploratory sea voyages like those conducted by SIO. The ocean floor was expanding with volcanoes emerging along numerous fissures in the planet’s crust.

Revelle became SIO’s Acting Director in 1950, and its Director in 1951, an appointment that did not come without challenge from colleagues. Despite their respect for his intellect and vision, they knew also that

clocks and calendars meant little to him. Revelle actually agreed, often saying, “I am pretty good at starting things but not very good at finishing them.” Nonetheless, his continuing dreams, extending beyond ocean discovery, included a graduate school for scientists and engineers. What Revelle did not want was a general campus. Any obligation to instruct undergraduates represented a distraction from creative work, and thus a barrier to recruiting the very best faculty. His goal was to attract the nation’s top scientists and provide them with facilities to conduct research in collaboration with their graduate students.<sup>35</sup>

Speaking at Princeton University in 1958 to an audience of graduate school advisors, Revelle described his personal image of an ideal campus: “...a university if it is to be distinguished needs to be distinctive, with a faculty built from the top down and not from the bottom up, from the inside out and not from the outside in.” Furthermore, he considered essential a full integration of the natural and physical sciences with the arts, humanities, and social sciences, “...because of the profound effect technology and scientific discovery will have on all aspects of modern society in the future.”<sup>36</sup>

On a more pragmatic level, San Diego’s Mayor and City Council had ideas of their own about higher education and were fully aware that the city held a key asset: open land in abundance. The 1848 Treaty of Guadalupe Hidalgo that transformed Mexico’s Alta California into first a territory and later a state had left San Diego in possession of historic “pueblo lands,” an inheritance that gave the city uncommon control of its destiny, leading to disposition of real estate for railroads and highways, for the Navy, for schools and universities, and for promising commercial ventures.<sup>37</sup>

San Diego’s leaders had been trying since 1924 to bring a UC campus to San Diego. When the Regents were looking for suitable land in Southern California, City Council members generously offered abundant pueblo lands north and east of SIO, enough for a campus serving 10,000 - 20,000 students. Unfortunately, the Westwood suburb of Los Angeles submitted a competing bid, one that led to the establishment of UCLA. There the matter stood until 1955 when the state legislature, nudged aggressively by local Assemblyman Sheridan Hegland, urged the Regents to explore the placement of a university branch in San Diego. The question was referred to UC President Gordon Sproul for study and a timely reply.<sup>38</sup>

Asked to meet with Sproul, Revelle made his pitch for, “something like a publicly supported Cal Tech” but with focus on the newest scientific fields rather than traditional professions like medicine and law. San Diego State College was already educating undergraduates he insisted. But when the City Council took up the matter, City Manager O.W. Campbell argued that San Diego citizens wanted something very different from a Cal Tech. In order to attract industry, the city needed a school that produced basic engineers. What the Council proceeded to approve was an offer of, “certain city owned lands for an undergraduate school that would enroll students entering into the professional field of engineering.”<sup>39</sup>

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<sup>35</sup> Judith & Neil Morgan, *Roger: A Biography of Roger Revelle*, pp 38-46.

<sup>36</sup> *San Diego Tribune*, Sept. 30, 1955, Oct. 19, 1955, Dec. 11, 1955, Dec. 14, 1955. Roger Revelle, “The Multiple Functions of a Graduate School,” delivered to the Association of Princeton Graduate Alumni, *Report of the Seventh Conference*, held at the Graduate College of Princeton University, Dec. 27-28, 1958.

<sup>37</sup> Clare B. Crane, *The Pueblo Lands*, San Diego Hist. Center, <http://www.sandiegohistory.org/journal/1991/april/pueblo/>

<sup>38</sup> Minutes of the meeting of the San Diego City Council, Dec. 13, 1955. Sheridan Hegland resolution, *Journal of the California State Assembly*, 1955, 196.

<sup>39</sup> Roger Revelle to Pres. Sproul, August 5, 1955. Minutes of meeting of the San Diego City Council, Dec. 13, 1955.

Paying little heed to the Council's position, the Chamber of Commerce assembled a stellar panel to attend a UC Regents meeting in Los Angeles. Led by attorney James Archer, they included Naval Electronics Laboratory Director Henry Bernstein, General Dynamics Director John Jay Hopkins, Convair Science Director Edward Creutz, and for good measure, a former Manhattan Project physicist, Frederik de Hoffmann, recently appointed President of General Atomics. Given their aggregate scientific firepower, the proposals for both an "Institute of Mechanics" and an "Institute of Pure and Applied Physics" was favorably received and forwarded to appropriate committees for study. Director Revelle was then asked by President Sproul to submit a statement describing his vision for a campus expansion.<sup>40</sup>

1956 was a year of sporadic progress: gains made, then lost, but finally recaptured. When informed in March by John Jay Hopkins that the General Dynamics board had approved a \$1million gift (\$10 million) in support of the two proposed institutes, Sproul appointed a special committee led by plutonium discoverer and Nobel Laureate Glen Seaborg to study Revelle's written proposal. Unanimous approval quickly followed. Meanwhile, a powerful Academic Senate Committee on Educational Policy decided there was no need in San Diego for anything more than the existing marine studies facility. But in May, yet another advisory committee urged approval of a major center in San Diego conditional on providing undergraduate instruction of high quality, thus agreeing with the City Council's position. San Diego voters promptly approved a grant of 40-50 acres for an "Institute of Technology and Engineering."<sup>41</sup>

In August, the Academic Senate revised its earlier position and endorsed Revelle's graduate technology program. Given this opportune reversal, UC Regents approved a budget of \$15 million (\$134 million) for one or two graduate institutes. Following these developments, San Diego State College President Malcolm Love forwarded his conditional endorsement, adding that he was willing to support a graduate-level research institution that would "complement but not compete" with the college. Even members of the La Jolla Woman's Club, after listening to Revelle's description of a school with only 1000 students, "few if any capable of winning a football game," were less concerned about details or a name but more than happy to grant approval for "any kind of advanced institute that might emerge from pending deliberations."<sup>42</sup>

The following year, 1957, is often remembered as the year of Sputnik, a year of sudden realization that the USSR might be producing scientists and engineers faster than America was, also a year when the nation's educators agreed that better teaching of science required a significant boost at every level. Following Sputnik, SIO Director Revelle issued his own caveat, one that would be featured nationwide: "Our youngsters must learn science or they will soon be forced to learn Russian." Yet 1957 would not be a year when UC Regents proved themselves capable of moving ahead decisively on the so-called 'San Diego Branch.' Instead, determined resistance came from one in particular, Regent Edwin A. Pauley.

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<sup>40</sup> Minutes of meeting of UC Regents, Los Angeles, Dec. 16, 1955. De Hoffmann served as first President of General Dynamics from 1955-70 and as President of the Salk Institute 1970-1988.

<sup>41</sup> John Jay Hopkins to President Gordon G. Sproul, Mar. 1, 1956. The Committee on Educational Policy controls the establishment of academic programs in the university.

<sup>42</sup> Minutes of the meeting of UC Regents, Aug. 24, 1956; approval of the La Jolla Woman's Club cited by Nancy Anderson, *Improbable Venture*, 269.



Pauley, a 1922 Berkeley graduate, made his fortune in oil, but derived greater pride from his political connections. As Democratic National Party Treasurer, he befriended then Missouri Senator Harry Truman who later as President appointed Pauley to the post-WWII Allied Reparations Committee. In that capacity he accompanied the negotiating team to the Potsdam Conference in July, 1945. It was a singular honor he liked to remind people of whenever he suspected they might have forgotten. In his Los Angeles office, Pauley often pointed to a photograph of himself standing next to Stalin, Truman, and Churchill in Potsdam. As a Regent, he would later denounce the Free Speech Movement and support Governor Reagan’s firing of Clark Kerr, Sproul’s successor as UC President. But in 1957, having initially favored a graduate school for San Diego, he turned face and fought against its approval. Revelle described Pauley as a “a big tough man...a sort of buccaneer.” But the SIO Director was equally imposing at 6’4.” Verbal exchanges were initially temperate in tone but in time they became acrimonious with adverse consequences in store for Revelle.<sup>43</sup>



**Edwin Pauley served 32 years as UC Regent**

Given the many post-Sputnik apprehensions, a surfeit of committees was re-examining the structure of higher education throughout the nation, and especially in California where the legislative charge was to base future recommendations on demographic projections. The 1957 “Additional Centers Report” identified San Diego as one of several deserving sites for a new general campus. But Sproul had already forwarded to the California Assembly his letter of support for “a graduate school for instruction and research in science and

<sup>43</sup> Obituary, Edwin Wendell Pauley, *New York Times*, July 29, 1981; Clark Kerr, *The Gold and the Blue: A Personal Memoir of the University of California* (Berkeley: University of California Press, 2001).

technology.” Pauley, however, was not to be pre-empted by his fellow Regents, insisting that UCLA be given responsibility for governing San Diego’s campus, a notion that Revelle declared “preposterous.” Sproul agreed and urged that a full campus be named University of California La Jolla. The public outcry was immediate with members of the City Council pointing out that La Jolla was merely one of many neighborhoods in San Diego, a small one at that, and certainly not an autonomous community worthy of any college naming rights.<sup>44</sup>

By this time there were several contradicting expectations for a new university in San Diego. A partnership between the Chamber of Commerce and General Dynamics continued to favor Revelle’s original twin institutes plan. The San Diego City Council, in alliance with the California Assembly, still wanted undergraduate teaching of engineers. And UC President Sproul, with a superfluity of advisory committees, was caught between advancing the graduate institutes proposal or facing up to the more broadly defined educational needs of California. The matter was provisionally resolved at the August, 1957 Regents meeting held at UC’s Lake Arrowhead Conference Center, with full focus directed at the ‘Additional Centers Report.’ From these deliberations came a recommendation that caught many by surprise: not one, not two, but three new general campuses were needed for California: one to be established in San Diego County, another for Orange County, and a third for an unnamed site in the Central Coast region.<sup>45</sup>

The obvious missing element following an announcement of this kind was land availability; where would it come from and when? Regent Pauley, not about to back off his opposition to the San Diego initiative, thought he would complicate matters by forcing a rider stipulating that all land required for new campuses, at minimum 1000 acres each, must come without cost to the university. The record does not reveal whether he knew at the time how well positioned the City of San Diego was to meet this requirement.<sup>46</sup>

## **San Diego: A Land Rich City**

Fortuitous circumstances granted San Diego more uncommitted land for inspired development than any other city in California, perhaps any city in the nation. How did this happen and when?

What King Carlos III of Spain wanted most from his New World expeditions of discovery was precious metal, preferably gold, but silver would do. His next priority was control of the natives by means of Christian salvation. For these linked objectives, settlements were granted sufficient resources for a presidio (military fortification), enough troops for defense, and sufficient priests to staff sacred missionary stations, twenty-one of them distributed throughout Alta California. The first of these was Mission San Diego de Alcalá founded in 1769. Because commitments were long-term, soldiers reaching retirement age often remained, establishing their families and households among other settlers nearby. The communities that developed were allowed to petition for pueblo (town) status. San Diego earned its municipal autonomy in 1834, 14 years after Mexico achieved its independence, giving it self-rule and a land grant known since as the city’s “Hispanic Dowry.”<sup>47</sup>

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<sup>44</sup> Minutes of meeting of the Academic Senate Committee on Educational Policy, May 20, 1957: “San Diego Campus Development 1956-1960,” UCSD Archives, Series 559.

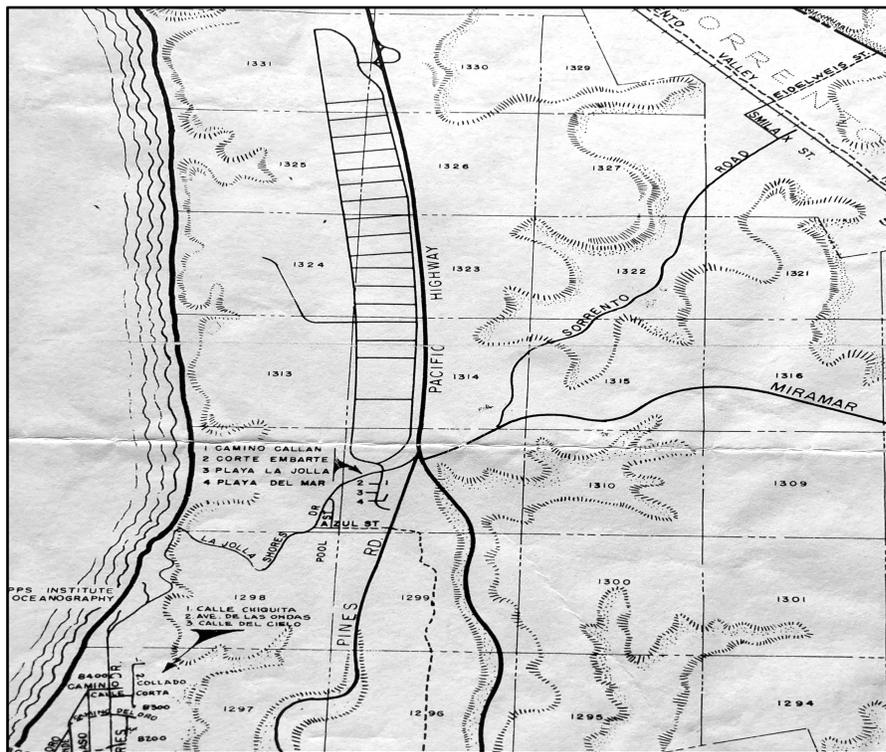
<sup>45</sup> Minutes of discussion of *Educational Policy of the University of California in a Period of Expanding Enrollment*, UC Regents meeting at the UC Lake Arrowhead Conference Center, August 14-15, 1957. Discussions of Lake Arrowhead Conference in UCSD Archives, Series 559.

<sup>46</sup> Land for a newly approved Southern Branch of UC was acquired in 1927: 400 acres west of Beverly Hills (thus ‘Westwood’) for \$1million (about \$14 million today)

<sup>47</sup> Clare B. Crane, *The Pueblo Lands*, San Diego History Center.

Santiago Arguello, appointed in 1845 as San Diego’s Prefect wanted to know exactly how much land he governed; so, he ordered a survey completed along with a map. A Captain Fitch, recently retired from sea duty and known to be “clever with numbers and the drawing of maps,” was commissioned for the task. Just three years later, Mexico ceded its lands to a new California Territory under terms stipulated in the 1848 Treaty of Guadalupe Hidalgo, among them guaranteeing that rights to land held under Mexican law were to be transferred intact to all previously designated communities including San Diego.<sup>48</sup>

This did not preclude the inaugural state government installed in 1850 from challenging specific terms in the treaty. For example, the California Assembly’s ‘Act of 1851’ demanded evidence in support of the alleged land inheritance from all claimants. Which city fared best from the challenge? It was San Diego because of Captain Fitch’s precision mapping of pueblo boundaries. While Los Angeles was forced to relinquish 12 of 16 granted square leagues and San Jose nine of eleven, San Diego retained all of its eleven square leagues, equal to 43,556 acres and equivalent to land measuring six miles by eleven. Fitch’s map was redrawn in 1870 by James Pascoe with Pueblo Lands divided into 240 numbered sub-plots of 160-170 acres each, a major asset for the city to dispense at its own discretion.<sup>49</sup>



**Numbered Pueblo Lots superimposed on a 1953 U.S. Geologic Survey map of northeast La Jolla; ladder pattern represents former site of Camp Callan**

<sup>48</sup> Abbreviated for convenience, the “Treaty of Peace, Friendship, Limits, and Settlement between the United States of America and the Mexican Republic,” was signed Feb. 2, 1848, thus ending the Mexican-American War.

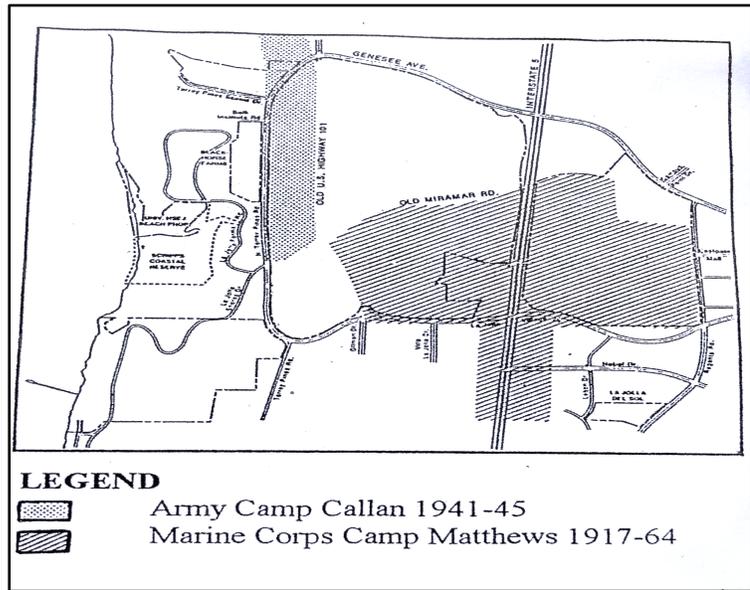
<sup>49</sup> Pascoe was commissioned to re-draw the map on the occasion of Alonzo Horton’s 1867 purchase of several hundred acres of downtown property from the city. The map was ready and dated 1870 but for unknown reasons not recorded until Nov. 14, 1921. Referred to as “Miscellaneous Map No. 36, it establishes the basis for land descriptions and titles involving ownership of all former pueblo property in the City of San Diego.

## Finding Land for a New General Campus

When Regent Pauley queried San Diego Union publisher James Copley about possible locations for a major university campus, he didn't like the answer. Instead of pointing to open land surrounding Lake Murray, or the Northeast corner of Balboa Park, or the valley south of Rancho Santa Fe, or even Lindbergh Field, all of them sites promoted by various factions, Copley insisted that La Jolla was the only choice that made any sense, preferably on acreage tucked between SIO and the emerging General Atomics campus, where ample city land was still available and also where the Marines were rumored to be vacating Camp Matthews in return for improved facilities at nearby Camp Pendleton. Not even a politically connected Pauley was powerful enough to forestall territorial prospects of that quality and convenience.<sup>50</sup>



**James Copley, Publisher**



**Two military site prospects for a La Jolla campus**

But the task of securing enough parcels to meet the stipulated 1,000-acre requirement proved to be less straightforward than Copley imagined or Revelle dreamed of. There were already plenty of suitors for the land. When rumors of a UC campus first began to circulate, realtors and developers began searching for any available deeds or leasing opportunities. The California Department of Highways was busy exploiting the 1956 Federal-Aid Defense Highway Act, announcing plans for a north-south right-of-way that would pass through the ravine bisecting Camp Matthews. So, an Interstate highway easement would become a requirement for either the Marine Corps or any inheritor of its acreage. Meanwhile, the city, at the time operating an auto racing track on land repossessed from Camp Callan, made a decision to create two championship golf courses. The Council also granted parcels for selected enterprises, first to General Atomics and subsequently to the Dow Chemical Corporation, much to the vexation of Revelle whose appetite for academic land extended as far north as Torrey Pines City Park. Years later when Dow Chemical became the target of UC Berkeley demonstrations against

<sup>50</sup> Conversation between Pauley and Copley at the 1957 meeting of California's leadership held in Sonoma County's Bohemian Grove, cited by Nancy Anderson, *Improbable Venture*, 50.

its product, Agent Orange, executives no longer wanted land anywhere near a UC campus, and gifted its choice coastal property to Scripps Clinic and Research Foundation, yet another disappointment for Revelle.<sup>51</sup>

Assuming the role of developers in 1951, Revelle and fellow faculty purchased for residential development forty-two acres uphill from SIO, land previously owned by the Scripps family, where a neighborhood began to evolve around Ellentown Road, named in honor of Ellen Browning Scripps. Judith Munk, wife of Walter, commented that it felt like “living upstairs over the store.” Nineteen partners shared the \$42,000 cost (\$404 thousand). Twenty-four acres were set aside as common property to assure ocean views and preserve a natural canyon leading down to a beach. The remaining land was subdivided into forty-two building sites. Partners drew numbers to establish the order of home site selection. The only limit established was keeping the cost of land within a range acceptable to new faculty hires.<sup>52</sup>

News of the Scripps Associates development provoked immediate alarm from the Real Estate Brokers Association (REBA), not only because of the price-fixing nature of the financial arrangement but also because of longstanding restrictive covenants. There existed a so-called ‘gentlemen’s agreement’ to keep out of La Jolla, “... any person whose blood is not entirely of the Caucasian race,” surely an obfuscation because what the realtors had in mind was restricting Europeans of Jewish faith. REBA had previously blocked a 1948 residential plan initiated by SIO’s Doug Inman for a development on Torrey Pines Mesa above the SIO campus. Inman later recalled that the City Council was receptive until it received pressure from real estate interests.<sup>53</sup>

The Scripps Associates transaction, however, represented a sale of private property beyond the City Council’s influence. There were last minute competitors for the land but the transaction was honored. Meanwhile, both Roger and Ellen Revelle took turns on the La Jolla Town Council and persuaded a majority that the broker’s restriction was nothing but bigotry. Furthermore, the U.S. Supreme Court had already struck down all such restrictive covenants, thereby making them unenforceable. Meanwhile, there were other residential developments afoot immediately adjacent to the proposed university site. In 1947, William H. and Ruth Black purchased from Scripps family interests a 240-acre parcel adjacent to former Camp Callan for eventual development of what they ultimately called La Jolla Farms.<sup>54</sup>

While Revelle was nurturing a community of scholars adjacent to SIO, he was also helping the Theater and Arts Foundation secure a site for its popular La Jolla Playhouse. He was also concerned about the living conditions of SIO graduate students. Many were veterans of the Korean War arriving with expanding families, and less than comfortable in the few cottages still remaining on the oceanfront campus. So, he consulted La Jolla Architect Robert Mosher and asked him to design enough apartments for 100 married students. When they visited a site overlooking SIO, Revelle pressed for no loss of the existing foliage. Mosher complied by planting three trees whenever one was taken for site clearance. His resulting complex, Coast Apartments, was later expanded with comparable attention given to saving trees.<sup>55</sup>

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<sup>51</sup> UC later became responsible for conveying 84.7-acres to Caltrans for Interstate 5.

<sup>52</sup> Sixty-six years later and without reference to documents, Walter Munk recalled for the author the details of this transaction, remembering that he drew #19 and was therefore last among the initial group to select his lot - on a hillside.

<sup>53</sup> Judith & Neil Morgan, *Roger*, 57-58. See also Douglas I. Inman, “Scripps in the 1940s: The Sverdrup Era,” *Oceanography* 16: 20-28.

<sup>54</sup> William F. Black, son of William H. and Ruth Black interviewed in 2010 and again in 2016.

<sup>55</sup> According to a Mar. 2, 1955 resolution, a portion of Lot 1298 owned by UC and valued at \$30,000 was exchanged for a portion of Lot 1299 valued by the city at \$30,000, with a net gain of 7.9 acres for UC. A theater was never built on

Revelle never strayed from his principal mission: establish graduate institutes of science and engineering. To his everlasting regret, the outcome of the Lake Arrowhead Regents Conference clinched the plan to proceed with three new general campuses, one of them destined for San Diego. In the midst of this impasse, Revelle wasn't surprised to learn that Regent Pauley had once again changed his tune, now objecting to assigning a general campus to San Diego, and instead proposing that the Regents take over San Diego State College, while going ahead with the twin graduate school option. For a change, Pauley was now closer to Revelle's original vision than he was to the Regents' latest intentions.<sup>56</sup>

Meanwhile, city councilmen were thrilled to learn that the Regents might assign a general campus to San Diego; members had long hoped to expand opportunities for undergraduate education in the city and it now looked like they might have their way. What few of them understood at the time was Revelle's plan to build a research university from the top down which meant providing for the needs of faculty first, followed by their graduate students. Undergraduate students would come much later if Revelle had anything to say about it. Early faculty recruitment options included soon-to-retire University of Chicago chemist Harold Urey, recipient of a Nobel prize for discovering heavy hydrogen (deuterium). When the Regents announced that Urey had chosen San Diego over competing offers from Berkeley and UCLA, the news brought sudden validation for what would continue to happen academically in La Jolla.<sup>57</sup>



**Revelle in campus planning mode.    Revelle welcoming Nobelist Harold Urey**

Early appointments of similar caliber included Yale biologists John Singer and David Bonner, Univ. of Pennsylvania physicist Keith Brueckner, and Cal Tech engineer Sol Penner. From Bell Laboratories came Bernd Mathias, George Faher, and Harry Suhl. When Princeton chemist and Manhattan Project veteran, James Arnold, was selected as Chairman of Chemistry, peer review was made difficult by the fact that his publications were still classified and unavailable for scrutiny. All of these appointments were provisional with the

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this land at the corner of Torrey Pines Rd. and La Jolla Village Dr. because the La Jolla Playhouse elected to partner with UCSD's Dept. of Theater and Dance. Architect Bob Mosher was interviewed in 2010. See also Dirk Sutro, *University of California San Diego: An Architectural Guide*, (New York: Princeton Architectural Press, 2010).

<sup>56</sup> Minutes of UC Regents Committee on Campus Site Selection, Apr. 16, 1959. Minutes of UC Regents Committee on Grounds and Buildings. May 14, 1959.

<sup>57</sup> Judith Morgan and Neil Morgan, *Roger*, 62-62. Urey, according to the Morgans was "the toast of the town" when he arrived, anxious to speak even to high school students and tell them that: "School is a place to be happy; I know because I am still in school and I am happy".

expectation that each would receive permanent positions upon final approval of a general campus. Meanwhile, Revelle struggled to find temporary workspace for everybody on the SIO campus.

More appointments followed in Anthropology (Melford Spiro), Economics (Seymour Harris), History (Geoffrey Barraclough), Linguistics (Leonard Newmark), Literature (Roy Harvey Pearce), Music (Robert Erickson), Philosophy (Richard Popkin), Political Science (Sanford Lakoff), Psychology (George Mandler), Sociology (Joseph Gusfield), and Theater Arts (Arthur Wagner).<sup>58</sup>

## “Noises Off”

A playwright, commissioned to dramatize the events that followed, might select the stage direction “noises off” to characterize the dissonance that Regent Pauley created while invoking aircraft-generated noise pollution as sufficient cause for abandoning the UC Regents’ preference for a La Jolla campus. He had already tried to force the dominance of UCLA over local academic governance and failed. He had imposed the requirement that necessary acreage come to UC without cost – only to learn of San Diego’s land bounty. Next, he waved the issue of aviation noise as the compelling obstacle.

The aerial war over Korea was fought with advanced jet aircraft. By the late 1950s, the Navy relied on several carrier-based fighters, among them the Grumman F-9F Panther, the McDonnell F-2H Banshee, the North American F-4 Fury, and the F-8U Crusader, all operating noisily out of Naval Air Station (NAS) Miramar. Although the main runway (6L/24R) is aligned directly with Mt. Soledad, a decision based on historic need to exploit prevailing offshore winds, pilots customarily banked right immediately after takeoff and flew northwest over land being considered for the university. This was also a time when afterburners were in common use, a means for suddenly augmenting engine thrust that necessarily added more clamor to local operations.<sup>59</sup> Little effort was required for a politically connected Regent like Ed Pauley to pick up the phone and receive a comprehensive military briefing on these matters. How could an institution of higher learning function under the flight path of a naval air training facility, he asked?

The Navy also made clear that it objected to any further civilian development in proximity to its base, a facility designated as a “Master Jet Base,” one that served as headquarters for TOPGUN, the U.S. Navy Fighter Weapons School (NFWS). 11<sup>th</sup> Naval District Commandant C.C. Hartmann warned President Kerr, that NAS Miramar was “hard core,” a \$60 million (\$490 million) air station essential for fleet operations. The base, he added, would forever remain dangerous and noisy: “The university can expect no retreat...the Navy is at Miramar to stay!” Meanwhile, the Commandant of Marines denied all rumors that the Corps was relinquishing its rifle range. Here were two Cold War military installations blocking San Diego’s academic development. Who could have been more pleased by this turn of events than Regent Pauley?<sup>60</sup>

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<sup>58</sup> Initial Department chairs were recalled for the author by historian, Stanley Chodorow.

<sup>59</sup> Author is grateful to Lawrence Cobb, former USAF pilot, Bradley Nemeth, former US Navy pilot, and Paul Wenhe, retired U.S. Airways Captain for technical advisory. U.S. Miramar National Cemetery now rests at the end of runway 6L/24R where pilots taking off often complete a short bank left, then a deep bank right. First bank is their salute to fallen warriors; second bank is sufficient for aircraft to pass over the two Torrey Pines Golf Courses instead of UCSD.

<sup>60</sup> C.C. Hartman to Clark Kerr, Aug. 12, 1958; Following release of the popular movie, TOPGUN, NAS Miramar informally adopted the screenwriter’s nickname, Fightertown, USA.



**Naval Air Station Miramar - 1988**

For a vivid onsite demonstration of the racket military jets can produce, Pauley paid for his fellow Regents to visit his Kane’ohe Bay retreat on Oahu where they could experience the sound of takeoffs from nearby Kualoa Airfield. His consulting architect, Charles Luckman, estimated that structural modifications to muffle jet noise would add 10% to costs of construction whereas university architects had estimated no more than 2%. Revelle, whose research skills were not limited to the ocean depths, learned that Scripps Memorial Hospital was planning a new facility located even closer to the air station than the prospective campus. Their advisor estimated costs for dampening aircraft noise at no more than 4%. The highest estimate was believed a deal breaker whereas the lower figures were considered workable.<sup>61</sup>

Walter Munk remembered when friend and colleague, Roger, invited him to a UC Regents meeting, this time also attended by their wives, Ellen Revelle and Judith Munk: “He warned us there would be electric moments” and indeed there were.” Briefed in advance by Revelle, UC President Kerr revealed to his audience that Mr. Luckman was serving as the hospital’s consultant at the same time he was advising Regent Pauley. Pauley immediately challenged his consultant, pretending that he was blindsided, but of course he wasn’t. Luckman sheepishly acknowledged the glaring discrepancy in his estimated costs for sound abatement.<sup>62</sup>

Revelle persisted with the humiliation, even disclosing Pauley’s attempt to sway the Regents with a bankrolled junket to his private Hawaiian resort. Furthermore, he demonstrated on maps that the prospective campus site was no closer than many campuses were to airports, and specifically, no closer than UC Riverside was to March Air Force Base. While other Regents reaffirmed their prior decision, the only negative vote was cast by Pauley. Within a month, funds totaling \$3 million (\$26 million) were allocated for a general campus in La Jolla. Recalling the event later, Revelle reflected, “my victory over the oilman was pyrrhic at best.”<sup>63</sup>

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<sup>61</sup> Minutes of the meeting of UC Regents Committee on Grounds and Buildings, Oct. 22, 1959. Roger Revelle Oral History, May 15-16, 1985, Mandeville Archives, UCSD. Revelle also fought assignment of 35 acres of city land to the Scripps Memorial Hospital Board but lost that battle among many others. Today Scripps Health System has expanded into its La Jolla campus located east of I-5 and immediately north of the UCSD east campus.

<sup>62</sup> When interviewed by the author in March, 2017, Munk recalled attending this meeting with Revelle.

<sup>63</sup> Interview of Roger Revelle by Nancy Anderson Feb., 1990 for *Improbable Venture*.

## Deeds of Transfer Finally in Sight

Land parcels meeting the 1000-acre threshold without cost came from three principal sources: the City of San Diego, private citizens acting in support of a new university for their community, and the United States Congress (the military services don't actually own land but often speak of and defend as if they do).

As San Diego's Councilmen prepared to fulfill their pledge of land for a La Jolla campus, a review of prior transactions included the 1907 auction of land orchestrated by E.W. Scripps that allowed the Marine Biological Association to purchase 170 acres of Pueblo Lot 1298, later transferred to the University of California. Next came a 1955 exchange of property in support of a theater, which at the time represented a gesture far short of Revelle's expansive desire for property from any source possible.<sup>64</sup>

Revelle was in the habit of driving prospective faculty to a particular site overlooking the Pacific Ocean, asking them to look around and tell him what they saw for their own needs, then answering his own question by imagining a cluster of buildings nearby filled with fully-equipped laboratories, one of them designated for his prospect. But to his enduring regret, the city awarded those cherished acres to another suitor, Jonas Salk, and his Institute for Biological Studies, said to be funded by the National Foundation for Infantile Paralysis (March of Dimes), the National Science Foundation, and the National Institutes of Health.<sup>65</sup>

Salk, having given up on his own University of Pittsburgh campus as a site for an institute, visited decommissioned military sites in the San Francisco Bay Area as well as land near Stanford University in Palo Alto. But an old friend, nuclear scientist turned molecular biologist Leo Szilard, urged him to look at La Jolla: "I know it well and think it an excellent place;" Szilard had previously served as a consultant to General Atomics in conjunction with the company's nuclear reactor development, later resulting in TRIGA, built on its La Jolla campus to generate a variety of radioisotopes for medical use.<sup>66</sup>

Revelle was thrilled by Jonas Salk's interest in La Jolla. On an evening in August, 1959, he and wife Ellen wined and dined Salk at their La Jolla beachfront home. But Revelle specifically asked Salk not to compete with him for Pueblo Lot #1324; yet he had already shown his guest the site with its ocean facing bluff. On March 9, 1960, newspapers reported that the San Diego City Council, urged on by Mayor Dail, himself a polio victim, had awarded to Salk that very same lot. The resulting conflict became unpleasant after Revelle sent a furious letter of protest to the mayor insisting that PL#1324 had been promised to the university. But Salk was so popular that the affair was blamed entirely on Revelle. "Saying no to Jonas was like saying no to motherhood and apple pie," recalled Ellen Revelle in an interview years later.<sup>67</sup>

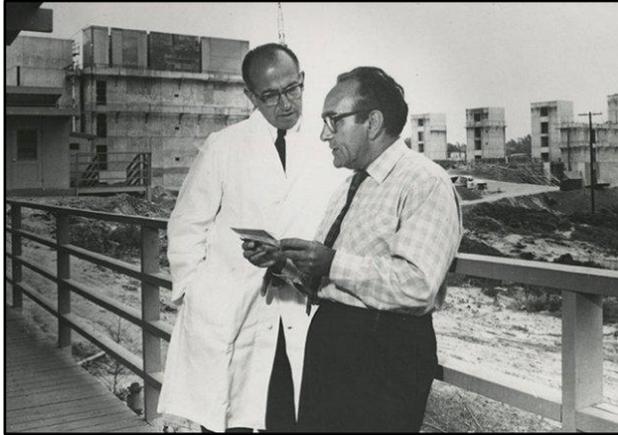
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<sup>64</sup> Quitclaim deed from The City of San Diego with transfer executed on April 10, 1955; NB: Quitclaim means transferred as is without warranty or future recourse.

<sup>65</sup> Funds provided by the March of Dimes were designated for an endowment and research operations, and not for building a laboratory. According to an anecdote related to Suzanne Bourgeois-Cohn by Jim Friedman (see footnote #75), Salk while on his way to testify before the city council was reminded that he held no funds for building his institute. He replied, "You're right, but they don't know that." Fundraising later provided the necessary building funds.

<sup>66</sup> Bourgeois-Cohn, Suzanne, *Genesis of the Salk Institute: The Epic of its Founders*, Berkeley, UC Press, 2013, 54-70. TRIGA stands for 'Training, Research, Isotopes, General Atomic'.

<sup>67</sup> Ellen Revelle Eckis interview, August 10, 1998, SIOA, SIO Reference Series 99-12.



**Jonas Salk in consultation**



**Salk Institute for Biological Studies**

When he was later confronted by Revelle and accused of “cutting the heart out of the prospective university campus,” Salk attributed the breach to his staff but kept the city’s gift anyway. The institute, designed by Louis Kahn and completed in 1962, was declared a “transformative structure” by architectural critics and later designated a National Historic Site. It is reported that Revelle never visited the institute.<sup>68</sup>

In 1961, the City Council delivered another blow to Revelle’s dreams when all unassigned land north of General Atomics was rezoned from residential to research and development, thus precluding its use for faculty homes as Revelle had wanted. The university has never received any of this northern reach of city land. But in that same year, the City Council released 58.5 acres, previously designated for an Institute of Technology and Engineering. This acreage became the first construction site for the University of California’s San Diego campus. In 1964, 120 students enrolled in a provisional School of Science and Engineering but they graduated four years later from a newly founded U.C. San Diego.<sup>69</sup>



**First College under construction - 1964-65**



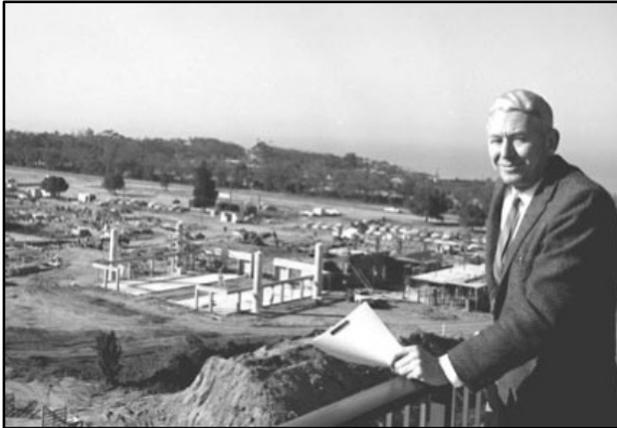
**First (later Revelle) College completed**

More city land was in store for the university, much more after it became clear to the city that a general campus was a certainty. Based on a March 12, 1964 vote, grant deeds for portions of Pueblo Lots 1311, 1314,

<sup>68</sup> Morgan, J. and N., *Roger*, 61-62.

<sup>69</sup> In 1960, UC Regents approved a change name from UC La Jolla to UC San Diego; Land transfer based on a vote of the San Diego City Council on Mar. 3, 1961, Grant Deed issued for a part of Pueblo Lot 1311 adopted Apr. 25, 1961.

1315, 1316, 1322, and 1323, for a total of 456.5 acres were executed and accepted by UC Regents. An additional 29.8 acres were added on Mar. 17, 1969. More than half of the required acreage was now in university hands.<sup>70</sup>



Ch. Galbraith overlooks 2<sup>nd</sup> College construction



2<sup>nd</sup> (later Muir) College completed

## A Military Turnabout!

Although familiar with the Marine Corp’s traditional defense of a perimeter and steadfast refusal to relinquish held territory, Representative Bob Wilson believed he saw an opportunity to acquire the Camp Matthews property for the State of California. The base already faced closure of several ranges due to safety hazards posed by residential encroachment. Furthermore, the La Jolla Town Council had made clear that it wanted the Marines gone. So, on Jan. 23, 1961 Wilson introduced H. R. 3099 requesting funds for a transfer of small arms training to Camp Pendleton. A concurrent senate bill was later submitted by California Senators Thomas Kugel and Clair Engel.<sup>71</sup>

Responding immediately to these developments, the Navy informed the House Committee on Armed Services that its objection to releasing the Marine facility for any university or community purpose remained in force. At the same time, however, they hinted that \$20M (\$167M) would be considered acceptable for meeting the costs of transferring Camp Matthews operations. The Commandant of Marines was politically savvy enough to know he shouldn’t have to give up Camp Matthews without getting something in return.<sup>72</sup>

Still in play was Pauley’s unwillingness to surrender. In a letter to Senator Engel, he restated his worry about the Navy’s concerns, citing only unnamed sources: “We have studies made by people who are experts in the field of sound, and the conclusions of these people have left questions in my mind.” Then, writing to fellow Regent Philip Boyd, he raised the wholly imagined prospect of commercial air operations moving from

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<sup>70</sup> Based on a Mar. 12, 1964 resolution, the grant deed involving portions of Pueblo Lot 1311, 1314, 1315, 1316, 1322, 1323, and 1324 transferred to UC Regents on Mar. 12, 1964 and recorded Apr. 25, 1964. Additional Grant Deed on Mar. 17, 1969 for two parcels of 25.4 and 4.37 acres respectively, each a portion of Pueblo Lot 1316 north of the Salk Institute. These deeds came with the Regents agreeing to finance installation of utilities and revise access roads.

<sup>71</sup> HR 3099 submitted Jan. 23, 1961; S 1108 submitted Feb. 28, 1961.

<sup>72</sup> The Navy informed House Committee on Armed Forces (including \$20M transfer cost estimate) in a memorandum cited by Nancy Anderson, *Improbable Venture*, 64.

Lindbergh Field to NAS Miramar. Boyd snapped back, “It is upsetting to discover that we still face your dissatisfaction with that site.”<sup>73</sup>

Despite the apparent folly of retaining an outdated rifle range in the middle of rapidly expanding urban sprawl instead of establishing a modern range tucked inside 122,800-acre Camp Pendleton, the time had come to seek intervention from higher authorities. And so, it fell to City Councilman Ivor de Kirby to contact his former UC Berkeley roommate, Secretary of Defense Robert McNamara, who reviewed the matter and promised, “...the Navy will reevaluate its position in the hope that a solution can be found.” But the House Appropriations Committee had just turned down funding for a proposed small weapons training facility at Camp Pendleton<sup>74</sup>

Next came San Diego Mayor Charles Dail’s turn for an appeal, this time to Secretary of the Navy John Connally. At the same time, the U.C. Regents pressed its case via their DC lobbyist who emphasized that acquiring Camp Matthews was essential for a San Diego campus. Copley Press applied its own brand of pressure on Committee Chairman Harry Sheppard, threatening to make public his repeated vacillation on the issue. Something worked because on Aug. 3, 1961 the *San Diego Union* reported that Congress had just approved the needed appropriation, \$6M instead of \$20M the Marines hoped for but still enough to allow for a transfer of La Jolla operations to Camp Pendleton.<sup>75</sup>

Now the University of California held a total of 1238.2 acres, surely enough for a general campus. The move out took the Marines three years to complete. Several firing ranges required decontamination, or in Army Corps of Engineer terminology, “...a preparing of the soil.” Especially difficult was the grenade-mortar-bazooka range that crossed a ravine being graded for a freeway. Mining contractors salvaged large quantities of lead and brass from the ranges. Despite these efforts, unexploded ordnance is still found at campus and nearby construction sites. In 1999, 200 3.5-inch practice rockets were uncovered in the hillside excavation for an addition to a Sheraton Hotel. During the recent construction of student housing units, several 60 mm mortars, M9 grenades, and Mk-II hand grenades were exposed and removed.<sup>76</sup>

Immediately before to the Camp Matthews transfer, university officials inspected the site and were pleased to find forty-six wood structures in excellent condition; twelve remain standing and ten are still in use today. On September 23, 1964, a quitclaim deed was ready for signatories representing the U.C. Regents and Navy Secretary Paul Nitze. In a carefully worded document granting transfer of 545.3 acres effective Oct. 6, 1964, the government stipulated that it be held forever harmless for any liability or claims of injury to the land

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<sup>73</sup> Edwin Pauley to “Dear Phil (Boyd), June 30, 1961 and Philip Boyd to “Dear Ed (Pauley), July 8, 1961 cited by Nancy Anderson, *Improbable Venture*, 272. Years later, in conversation with Chancellor Richard Atkinson, Pauley still believed La Jolla was the wrong place for UCSD.

<sup>74</sup> Ivor de Kirby to “Dear Bob” (McNamara), June 30, 1961 and “Bob” (McNamara) to “Dear Ivor” (de Kirby), Aug. 1, 1961, confirmed by de Kirby’s daughter, Diane Vantuno who explained that the two were classmates at UC Berkeley and later worked together at the Ford Motor Company, then adding that her Dad also testified on behalf of his friend at hearings for McNamara’s 1960 appt. as Secy. of Defense.

<sup>75</sup> Charles C. Dail to The Honorable John B. Connally. July 24, 1961, Clark Kerr to “Dear Clair” (Engel), July 24, 1961, Robert E. Anderson to The Honorable Harry Sheppard, July 31, 1961; *San Diego Union*, July 23 and Aug. 3, 1961.

<sup>76</sup> MCRD Command Museum Archives. While UC contractors were “preparing the soil” for the construction of Thornton Hospital, they found projectiles dating from WWI.

itself (e.g. buried ordnance) or for damage to improvements (e.g. university structures) from military aircraft operating in the vicinity of NAS Miramar.<sup>77</sup>



**Transfer Ceremony: USMC Camp Matthews to UC Regents Oct. 6, 1964;  
UCSD Chancellor Herbert York far left; UC President Clark Kerr far right.**

Next day, a transfer ceremony was held on the parade plaza (now called Town Square) facing an evacuated headquarters building since replaced by a Student Services Center. An inscribed marker commemorating the event was placed. Attending were Commander of San Diego's Marine Corps Recruit Depot Bruno Hochmuth, UC President Clark Kerr, and UC San Diego's recently appointed inaugural Chancellor, Herbert York, a UC Berkeley trained physicist, former Director of the Lawrence Livermore National Laboratory, and science advisor to the Eisenhower Administration. Many faculty, especially recent hires, deeply regretted learning that Roger Revelle was passed over for the post; a few of them even considered leaving the university in protest.<sup>78</sup>

The fiftieth anniversary of this historic transfer was celebrated at the same site on Oct. 6, 2014. Among those attending was Sybil York, widow of the late Chancellor York, Colonel Christopher Nash, Commander, Weapons and Field Training Battalion for Camp Pendleton's Edson Range, and several veterans of WWII who received their small arms training on Camp Matthews' firing ranges.

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<sup>77</sup> Quitclaim deed transferring 545.3 acres involving all or part of Pueblo Lots 1300, 1309, 1310, 1311, 1313, 1314, 1315, 1316 made the 23<sup>rd</sup> day of Sept. 1964 pursuant to an authorized Act of Congress, approved Sept. 14, 1962, (Public Law 87-62 (76 STAT 546) 87<sup>th</sup> Congress). Among the existing Matthews buildings are three moved to the Revelle campus for use as the Che Café.

<sup>78</sup> The memorial reads: "The United States Marine Corps occupied this site known as Camp Calvin B. Matthews from 1917 to 1964. Over a million Marines and other shooters received their rifle marksmanship training here. This site was deeded to University of California at San Diego on 6 Oct. 1964 for the pursuit of higher education." Reaction to York's selection came down hard on Kerr and the Regents. York came to UCSD from the Pentagon where he served first as Chief Scientist of the Advanced Research Projects Agency (ARPA) and then as the first Director of Defense Research and Engineering. The *San Diego Tribune* chose to characterize York as "a Manhattan Project whiz kid." A full account of the factors leading to selection of York over Revelle as inaugural chancellor is beyond the scope of this essay.

While the 1964 Camp Matthews transfer was taking place, the university learned of rumors that the General Services Administration (GSA) would soon declare surplus all adjacent property not required for NAS Miramar operations. Given his insatiable quest for land, Revelle urged UC Vice President Harry Wellman to ask for 3000 acres, in his view an opportunity to establish an experimental engineering station where rocket engines might be developed and tested, perhaps even launched; where a High Energy Particle Accelerator (HEPA) might be operated by UCSD physicists in collaboration with the Atomic Energy Commission; where a primate colony operated in conjunction with the Public Health Service could serve the health professions.<sup>79</sup>

The customary political jockeying followed, and in Feb. 1965, UC San Diego received from 507 surplus acres from the GSA. While this nearly doubled the Camp Matthews acquisition, it was far short of what Revelle hoped for. Alas, there would be no rockets launched nor particles split. Instead, the university constructed a care facility for laboratory animals. Later, the Jacobs School of Engineering received NSF funding to build the world's largest outdoor "shake table for seismic studies," one component of its Engelkirk Structural Engineering Research Center. The remaining acreage was left undisturbed as the Elliott Chaparral Reserve.

Special circumstances required the Regents to make several land concessions to the federal government. In 1962, 2.5 acres were conveyed for construction of a Bureau of Commercial Fisheries Laboratory on the SIO campus. In 1967, twenty-six acres of the Camp Matthews inheritance was returned to the government for construction of an 800-bed Veterans Administration Hospital. Based on the Navy's stipulation that the land it released was for educational purposes, the university in turn specified that the VA Hospital be made available in perpetuity "for purposes of clinical instruction in medicine." UCSD's School of Medicine thus joined sixty other American medical schools with VAMC teaching affiliation agreements.<sup>80</sup>



**UCSD adds a Medical Campus and a Veterans Administration Hospital**

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<sup>79</sup> Roger Revelle to UC Vice President H.R. Wellman, April 8, 1961, cited by Anderson, *Improbable Venture*, 83-84; *San Diego Tribune*, Feb. 19, 1965. Miramar, the original Scripps Family estate, was eventually absorbed by Camp Kearney, later renamed Camp Elliott.

<sup>80</sup> Grant deed made 22<sup>nd</sup> day of March, 1962 by Act of Congress approved Aug. 3, 1961, (75 Stat. 246) appropriated for expenditure by the Bureau of Commercial Fisheries, United States Department of the Interior; Indenture of Quitclaim made the 21<sup>st</sup> day of August, 1967 by virtue of an Indenture of Quitclaim made the 23<sup>rd</sup> day of Sept. 1964 by the United States of America by and through the Department of the Navy, pursuant to a duly authorized Act of Congress approved Sept. 14, 1962 (Public Law 87-662 (76 Stat. 546) 87<sup>th</sup> Congress.

When in 1965, SIO's expanding fleet of research vessels required additional harbor frontage and docking space, the government obliged by granting a lease of 5.8 acres taken from its Naval Fuel Depot. In 1975, the property was deeded for the perpetual use of SIO's fleet, at that time including *Alexander Agassiz II*, *Alpha Helix*, *Ellen B. Scripps*, *FLIP* (Floating Instrument Platform), *Melville*, *ORB* (Ocean Research Buoy), *Thomas Washington*, and the *David Starr Jordan*, a National Marine Fisheries research vessel. A new technical support facility was later dedicated in honor of Admiral Chester Nimitz USN Retired, a former UC Regent, but throughout WWII: Commander-in-Chief, U.S. Pacific Fleet.<sup>81</sup>



**Nimitz Marine Facility, Point Loma, home base for the SIO fleet.**

## **Private Sector Responds Generously**

Despite conflicting newspaper accounts of what kind of institution might replace the former Marine base, local citizens demonstrated their enthusiastic support with gifts of private property. Infatuated with the prospect of a university developing in her community, Mrs. Florence Scripps Kellogg prevailed on her son William Scripps Kellogg, grandson William Crowe Kellogg, and family trustee Adeline Bishoff to grant the UC Regents three parcels of land, each of them originally a part of Pueblo Lot #1297.

A group of local investors that including Frederick William Kellogg recognized in 1927 the potential for a small yacht basin in a natural estuary north of La Jolla village and south of “the oceanographic” as locals referred to SIO. In 1931, Kellogg purchased a lifetime share in a club that owned twenty acres surrounding the estuary. By 1935, he owned the entire club plus several more lots in La Jolla Shores including a beachfront bed & breakfast called Spindrift Inn, later transformed into a seaside restaurant. After adding four tennis courts, ‘Beach and Yacht Club at La Jolla’ became ‘La Jolla Beach and Tennis Club’ (LJBTC). Soon after Florence’s death in 1960, trustees fulfilled her wish by transferring property to a recently dedicated UC San Diego.<sup>82</sup>

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<sup>81</sup> Quitclaim deed made as of 1<sup>st</sup> of May, 1975 acting through Secy. HEW pursuant to Federal Property and Administrative Services Act of 1949 (63 Stat.377); The recently refurbished Nimitz Marine Facility on San Diego Bay is shared with the Naval Electronics Laboratory and can berth and service as many as seven research vessels at a time. SIO currently uses the following vessels: *R/V Roger Revelle*, *R/V Robert Gordon Sproul*, *R/V Sally Ride*, *R/V FLIP*.

<sup>82</sup> Author appreciates information provided by William J. Kellogg, 4<sup>th</sup> generation owner and President, LJBTC. The Spindrift Inn became La Jolla’s famed Marine Room at 2000 Spindrift Drive; Grant Deed for Lots 1, 2, 3, parts of Pueblo #1297 signed by Kellogg Family Trustees William S. Kellogg, William C. Kellogg, and Adeline Bishoff on Dec. 9, 1960 and later sold by the Regents for home sites.

Mrs. Kellogg might never have imagined the influence her family's enterprise would have on university expansion. Two spectacularly located public venues: a beachfront restaurant, the Marine Room, and a hotel, the La Jolla Shores Hotel remembered by old-timers as the Sea Lodge, both still owned and operated by the Kellogg family, have long served deans and department heads for recruiting prospective faculty, hosting visiting professors and grant agency site visitors, conducting research workshops and clinical symposia, also providing comfort to families of newly arrived faculty awaiting their moving trucks.<sup>83</sup>



**Natural estuary replaced by Kellogg family's La Jolla Beach & Tennis Club**

From the Templeton Foundation to SIO in 1965 came an 11-acre parcel atop Mount Soledad used initially for the study of radioactivity in marine life and later for a telecommunications tower plus antennae for an NSF funded High Performance Wireless Research and Education Network (HPWREN). Other gifts of privately-owned land came from Kenneth and Via Beers (1961), George and Helen Griffith (1961), Hall and Constance Holder (1961), as well as unnamed donors acting through the La Jolla Shores Improvement Association (1960). But the largest campus addition of private land, purchase of the William Black family's La Jolla Farms development (1967), was cloaked in irony because of the unexpected participation of UCSD's obdurate foe, Regent Edwin Pauley.<sup>84</sup>

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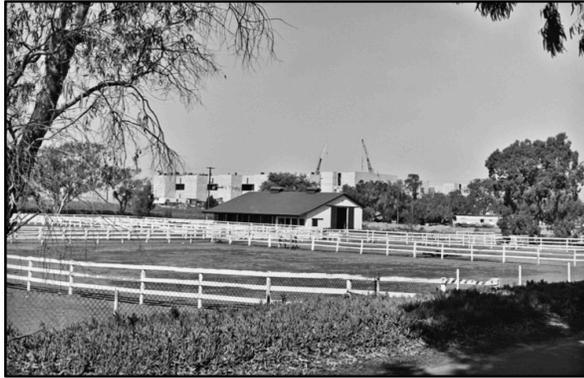
<sup>83</sup> The savvy recruiter can bring a UCSD prospect to the Marine Room Lounge for a nightcap after a busy day of campus visits. This author's family adjusted to their new La Jolla milieu at the Sea Lodge, now renamed the La Jolla Shores Hotel, while awaiting a moving truck.

<sup>84</sup> Grant Deed executed Jan. 4, 1961 by George E. Jr. and Helen D. Griffith for sum of \$10 paid by UC Regents for Lot 3 in Block 3 of La Jolla Shores Unit #1 and recorded Feb. 14, 1961; Grant Deed executed May 2, 1961 by Hall G. and Constance S. Holder for transfer of Lots 9 & 10 & 11 in Block 6 of Center Addition to La Jolla Park and recorded May 5, 1961; Quitclaim Deed executed by John M. Templeton and Grace M. McKinney and the Templeton Foundation on Apr. 29, 1965 a portion of Pueblo Lot 1264 transferred to UC Regents; Deeds executed by La Jolla Shores Improvement Association transferring Lot 3 in Block 19 of La Jolla Shores Unit No. 1 to UC Regents on Mar. 2, 1960 and portions of Pueblo Lot 1297 also by LJ Shores Improvement Assoc. to UC Regents on Dec. 9, 1960.

William H. Black, a native Texan who had lived in San Diego during the 1920s, returned with his young family in 1937. One year later, they purchased a house on Cave Street in La Jolla. In 1947, Black and his wife Ruth purchased 240 acres of unimproved land that lay within Pueblo Lots 1312 and 1313, some of it used by the Army during WWII. Enthusiastic about thoroughbred horses, the family developed a breeding and training facility they called La Jolla Farms.<sup>85</sup>



**Ruth and Bill Black Sr.**



**La Jolla Farms & Stables with Salk Institute construction in background**

In 1949, they began to convey bluff-top parcels to friends who wished to build homes overlooking the Pacific Ocean. In 1950, the Blacks identified their own home site and engaged noted Santa Fe architect William Lumpkins, to design a house in the Pueblo Revival Style. Five years later, the Blacks allowed much of the remaining land to be subdivided into 92 residential building sites ranging from one acre to just over seven. Their son, William F. Black, after returning in 1958 from service as an Air Force pilot, formed a company to purchase and resell the subdivision’s unsold inventory.

In 1966, when UCSD was still in its infancy, UC Regent Pauley invited the Blacks, father and son, to a meeting in his Beverly Hills office. Their discussion focused on the university’s interest in purchasing thirty-four remaining unsold lots together with other La Jolla Farms property still in family hands. This included the horse stables and barns, a half-mile training track, a canyon with a paved switchback road leading down to the beach, one mile of sandy beach (still known today as Black’s Beach), and finally, a spectacular 25-acre parcel facing the ocean and referred to by locals as “the knoll,” believed ideal for a university conference center.<sup>86</sup>

Initially reluctant to dispose of their holdings, father and son heard what they interpreted to be a “veiled reference to the potential for condemnation hearings.” So, the Blacks entered into an amicable but arms-length negotiation with UC officials. The dialogue expanded to include acquisition of Mr. and Mrs. Black’s La Jolla Farms residence for use as a UCSD Chancellor’s home.<sup>87</sup>

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<sup>85</sup> William F. Black, interviewed in 2017 for transaction details and review of documentation.

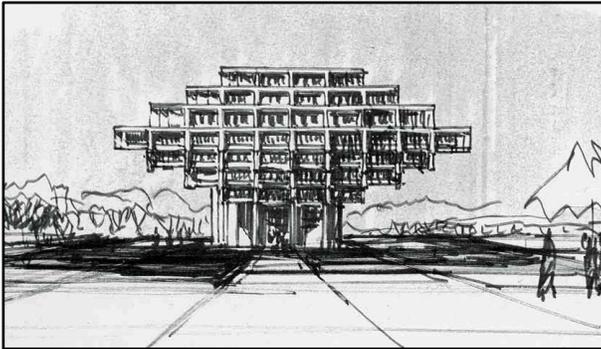
<sup>86</sup> Pauley’s motive remains a mystery. He fought the purchase when proposed by his consultant, Charles Luckman.

<sup>87</sup> UC San Diego’s first University House was authorized by UC Regents concurrent with the appointment of Herbert York as inaugural Chancellor In 1961. Mrs. York selected a home at 7510 Pepita Way in La Jolla for service as a residence. The property was sold after the former Black family residence in La Jolla Farms became University House.

A deal was struck for all of the family holdings, approximately 132 acres. Multiple grant deeds transferring these parcels to the university were signed on February 27, 1967, and recorded on March 9, 1967. Transfer was subject to a remaining three-year lease of one parcel that included the stables and track.<sup>88</sup>

The notion that UC Regents were forced to pay a premium for La Jolla Farms is unsubstantiated. The Black family believed they handed the university a property at a price well below existing market value. There were rumors of irregularities because tax-exempt status was claimed for interest received on the unpaid portion of the purchase price. But the Black family relied on assurances from UC Treasurer Owsley B. Hammond and other university officials that interest income received by them would be exempt from taxation, later confirmed at the time of a federal audit.

Community reaction was immediate, one-sided, and overwhelmingly negative. Never explained were the reasons university officials believed there was need to expand into an established residential neighborhood, attract unwanted traffic, and therefore reduce property values. Chancellor John Galbraith was forced to answer these questions at a time when his primary obligation was to resolve issues critical to university development. At one time a Marine who qualified at Camp Matthews, Chancellor Galbraith's enduring legacy derives from his insistence that UC San Diego be granted a full humanities and social sciences library, opened in 1970 as the Central Library with a collection of 750,000 volumes. In 1995, it was renamed the Geisel Library to honor a gift from Theodor Geisel, a longtime advocate for literacy.



**Concept**



**Casting**



**Construction**



**Completion**

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<sup>88</sup> Multiple Grant Deeds transferring several parcels, approximately 132 acres, to UC Regents on Feb. 27, 1967 and recorded on Mar. 9, 1967.

The Black family wondered whether the university was going to find good use for the property; for example, faculty housing as had been implied throughout the negotiations. Their private residence eventually became University House, a home for chancellors from 1967 until 2004 when structural problems forced its closure and a major reconstruction. Excavation yielded 9000-year-old skeletal remains; had William F. Black been available to ask, he could have reported a similar discovery of bones at the time of original home construction. Following the re-discovery, litigation pitted university anthropologists hoping for DNA testing against the Kumeyaay Tribe who in time won control of the remains. Reopened in 2014 as the Audrey Geisel University House in honor of her \$3 million gift, it now serves as a chancellor's residence and event space.<sup>89</sup>

The university gained its desired conference center, not on the knoll, but from a lease agreement with a private builder assigned ten acres for construction of Estancia La Jolla Hotel & Spa with 22,000 sq. ft. of meeting space. Another parcel was developed as Blackhorse, a gated community of 141 townhomes on long-term lease from the university. Today, the development is popular with faculty and others studying nearby. As for the Knoll, it remains in its post-war 'natural' state, part of a 1000-acre Scripps Coastal Reserve that includes the 400 ft. high mesa, a coastal canyon, a sandy beach, an offshore coastal plain, and a sub-marine canyon.<sup>90</sup>

As for the subdivided lots acquired by the university, nearly all were eventually sold, not directly to faculty but via realtors at significantly appreciated value. Some critics believed the university never intended to use home sites for faculty, but instead saw the purchase as an investment opportunity. One lot was sold directly to a faculty member at a below market price, raising objections from Sacramento resulting in legislation that required all campuses planning divestiture of land to announce the sale for public bidding.

In any event, looking back from a half-century later, the evidence points to La Jolla Farms evolving into a favored refuge for scientists and other scholars affiliated with UC San Diego, the Salk Institute, General Atomics, and other distinguished research institutes nearby. Among the many fields represented in this erudite community are: astronomy, chemistry, economics, mathematics, nuclear physics, neurology, neurosurgery, plastic and reconstructive surgery, experimental psychology, pulmonary physiology, and psychiatry. The list includes a Nobel laureate, a president emeritus of the Salk Institute, and one electrical engineer turned UCSD Chancellor, all this in a place once considered "isolated property." While the university did not plan for it to evolve in this manner, it did happen. Call it geographic determinism. Or call it the Black Family's legacy to San Diego's science and technology enterprise.<sup>91</sup>

## **Negotiating for San Diego County Property**

Beginning in 1964 with the appointment of its inaugural Dean, Joseph Stokes MD, UCSD's nascent medical school was limited to temporary space while awaiting transfer of Marine Corps land. Meanwhile, its earliest faculty awaited completion of the school's first priority, a building devoted to basic research and called to this day the 'Basic Science Building.' But until a university medical center could be built, a clinical teaching facility was needed and the distant San Diego County Hospital seemed a likely prospect.

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<sup>89</sup> See "Scientists lose fight for California bones," *Science*, Feb. 5, 2016, 540.

<sup>90</sup> See <http://nrs.ucsd.edu/reserves/scripps.html>. For description of the Scripps Coastal Reserve.

<sup>91</sup> Author thanks UCSD physiologist John West and his wife Penelope, among the original UCSD faculty residents of La Jolla Farms, for their enlightening neighborhood profile.

Prior to 1855, county governments in California provided little more than a place for the poor to die. Based on that existing civil standard, San Diego County maintained a ‘City Poor Farm’ in Santee. In truth it was only a modest dairy farm where the poor could exchange their labor for subsistence and, when lucky, the visit of a doctor. The California Pauper Act of 1855 mandated that counties must make better provision for the indigent, prompting San Diego to offer, for the first time, clinic services in Old Town’s abandoned Cobblestone Jail and later in a leased Mission Valley home. The farm model wasn’t abandoned until 1925 and later replaced with Edgemoor Geriatric Hospital and more recently the Edgemoor Skilled Nursing Facility.<sup>92</sup>

An updated Pauper Act of 1900 defined higher standards of care that yielded a statewide network of county-sponsored general hospitals for “relief and support of all incompetent poor persons.” San Diego responded in 1903 by purchasing fifty acres of undeveloped Hillcrest land on a bluff overlooking Mission Valley. One year later a completed 4-floor 259-bed hospital commenced operations on behalf of the county’s indigent. Its budget provided for one physician salary, a medical director, while community physicians and dentists contributed all other care.<sup>93</sup>



**San Diego County’s first public hospital.**

An annex was built in 1926 to ease congestion in a very busy facility. Meanwhile, Sisters of Mercy opened their aptly named Mercy Hospital nearby, a successor to St. Joseph’s Sanitarium established in 1891 by San Diego’s legendary Sister Mary Michael. Mercy was San Diego’s first so-called “private hospital.” Considering the proximity of the two institutions, city leaders saw a medical complex in the making. Physician office buildings followed soon after.<sup>94</sup>

Alarming news came in 1956 when the *San Diego Union* reported the county’s hospital was no longer safe for inpatients! A structural engineering report indicated that the 1904 facility passed tests for vertical loading but failed horizontal loading produced by an earthquake or even heavy winds. Even worse, the problem could not be fixed. Originally constructed of brick without steel reinforcement, the structure failed standards redefined after San Francisco’s 1906 earthquake. The annex, built with steel, did pass code and could remain in use. Patients were transferred to a cluster of temporary single floor wooden structures, one of them

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<sup>92</sup> *San Diego Herald*, Feb. 28, 1952..

<sup>93</sup> Deborah Kelch, *Caring for Medically-indigent Adults in California: A History*, Calif. HealthCare Foundation, 2005.

<sup>94</sup> Sarita Eastman MD, *Good Company: Scripps Health and the Story of its People*, 36-38.

designated for victims of tuberculosis, another for the mentally ill. Meanwhile, the condemned structure remained in use for offices, outpatient clinics, existing laboratories, and a main kitchen.<sup>95</sup>

After voters approved a \$12M(\$110M) bond issue for a hospital replacement, construction began on Nov. 12, 1960. The new facility with 623 beds and 38 bassinets opened for patients on June 23, 1963. News reporting featured the elevated ceiling clearances that made eleven floors equal in height to a nineteen-story residential building. Because of its hilltop location, the hospital reached an elevation higher than any other structure in the city. Reporters also highlighted a basement excavated 14 feet in depth, thus qualifying as a nuclear bomb shelter. These were Cold War times after all.<sup>96</sup>

Years before construction began, county supervisors learned of negotiations for a local UC campus. A 1958 offer of its hospital for use of a new medical school was rejected by the Regents. Intensive lobbying led to a 1961 announcement by California Governor Pat Brown that the UC system's third medical school would in fact be established in San Diego adjacent to the county's new hospital. Seeking to relieve themselves of their continuing financial burden as quickly as possible, supervisors once again offered to donate Hillcrest land and improvements to the University of California including forty of its fifty acres plus all secondary structures adjacent to the new hospital site. When the Regents once again failed to take the bait, County Administrative Officer T.M. Hegland asked for demolition of the condemned hospital; his excuse was additional parking space but his motive was to make the property more appealing to UC. Meanwhile, supervisors had to find contingency funds for sustaining hospital operations.<sup>97</sup>

Almost from the beginning, a disparity of purpose and approach existed between San Diego County and the University of California, and especially between the local medical community and the new medical school faculty. County officials envisioned a school in existing structures adjacent to the new hospital. The medical community imagined itself as the principal faculty for medical students. Meanwhile, medical school planners were enacting the 'Bonner Plan,' named for the founder of UCSD's Department of Biology, who championed a working accord between university scientists and recruited medical school faculty, with medical students collaborating as graduate students, all of this on the La Jolla campus.

Alas, there would be no medical school in Hillcrest, only clinical rotations for medical students and advanced specialty training for resident physicians, as well as treatment programs brought to San Diego for the first time by new UCSD faculty: kidney transplantation, gene therapy, psychotropic drugs, a regional burn center, pediatric dysmorphology, craniofacial reconstruction, pulmonary thromboendarterectomy, and much more. As an example, there was a myocardial infarction research center (MIRU) championed by UCSD's founding Professor and Chairman of Medicine, Eugene Braunwald, first of its kind anywhere; a unit where diverse technologies were directed at measuring the extent of muscle damage following a heart attack, allowing for the indexing of risks, and a gradient of safe treatment regimens.

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<sup>95</sup> *San Diego Union*, Nov. 6, 1956 (found in clipping file for 'Hospitals' at San Diego Hist. Center Document Archives.

<sup>96</sup> *San Diego Union*, July 28, 1958, October 5, 1958, August 3, 1960, November 12, 1960.

<sup>97</sup> See David N. Bailey, *Catching the Wave: A History of the University of California, San Diego School of Medicine* for more on Bonner plan. Meeting minutes for Sept. 16 and 20, 1961, Feb. 21, 1964, Board of Supervisors, San Diego County, San Diego History Center Document Archives.



**University County Hospital - 1966**



**UCSD Jacobs Medical Center - 2021**

On Feb. 16, 1965, the *San Diego Union* reported that the UC Regents had approved transfer of hospital management on a date to be determined by medical school authorities. County patients would be cared for by UCSD faculty using a payment formula jointly agreed upon by supervisors and the university. Prior to enacting the transfer, however, Dean Stokes surprised the medical community by announcing that medical school faculty would be admitting their private patients, a first for San Diego County Hospital. On July 1, 1966, UC San Diego assumed operational responsibility for the hospital and a new name was announced: University County Hospital, later abbreviated to University Hospital. When the Regents bought the hospital in 1981 for \$17M (\$50M), they assigned a newer name: UCSD Medical Center. After a hospital built for UCSD opened on the La Jolla campus, there came another revision: UCSD Medical Center Hillcrest.<sup>98</sup>

**UCSD's Cumulative Acreage 1912-81 including Sources:**

1912	170.0		City	SIO
1955	17.9	177.9	City	Trade on behalf of theater
1961	58.5	236.4	City	First UCSD building site
1964	456.5	692.9	City	Former Camp Callan
1964	545.3	1238.2	Congress	Camp Matthews
1965	507.0	1745.2	Congress	Camp Elliott
1967	132.0	1877.2	Private	La Jolla Farms
1969	29.8	1907.0	City	Land next to Salk Inst.
1975	5.8	1912.8	Congress	Nimitz Facility
1981	50.0	1962.8	County	SD County Hospital

<sup>98</sup> *San Diego Union*, Feb. 16, 1965. Meeting Minutes, May 19, 1966, July 1, 1966, Board of Supervisors, San Diego County, San Diego History Center document archives; and on Feb. 27, 1973, *San Diego Union* reported that a community physician complained about the university charging excessive fees for the care of county patients. For example, he cited clinic visits for \$35 (\$200) and 3-day hospitalization of mother and newborn infant for \$450 (\$2500).

## Thoroughfares: Then and Now

In the 1970s, motorists approaching UCSD from the north on historic US 101 could enter directly and continue to the center of the campus over what has now become ‘Ridge Walk.’ Anyone ascending the grade on La Jolla Shores Drive could proceed past the Torrey Pines Road intersection and cross the entire west campus, then over I-5, before encountering a largely undeveloped east campus. Motorists approaching UCSD from the south on Gilman Drive (former US101) entered the campus soon after passing beneath a reconfigured La Jolla Village Drive that connected I-5 with Torrey Pines Road. Today, all these penetrating arteries are replaced by an internal loop established for use by UCSD Transportation Service buses and necessary intra-campus traffic.

A contemporary tour of thoroughfares encircling UC San Diego’s La Jolla campus might begin approximately where UC got its start in 1912, on La Jolla Shores Drive as it courses through the SIO campus. Climbing from approximate sea level, we pass through an ocean-side campus with more than thirty academic buildings plus one research-equipped pier and numerous support structures. A noteworthy sign soon appears on the left: ‘Biological Grade’ indicating where one segment remains of the switchback road first commissioned by Ellen Scripps. After a sharp right turn, a road cut dating from the 1930s permits a more gradual climb above SIO, bringing La Jolla Cove into view on the right. After another reversing turn, a tennis court appears on the left near where Roger Revelle and architect Robert Mosher stood discussing graduate student housing. On the right are the apartments resulting from that first meeting.<sup>99</sup>

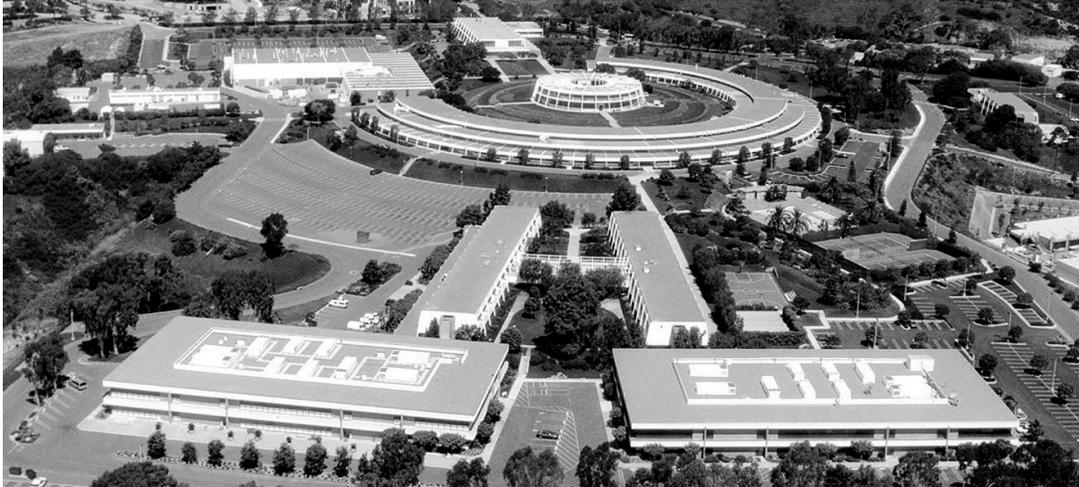
La Jolla Shores Drive continues past two university-inspired residential neighborhoods, Scripps Associate Estates and La Jolla Farms before intersecting with Torrey Pines Road. Instead of continuing on a now obliterated (Old) Miramar Road, we proceed northward, passing on the right “Second College” later renamed for John Muir, the new Sixth College Living/Learning Center, followed by UCSD Extension, Eleanor Roosevelt College, Rady School of Management, and an expansive student apartment complex. On the left we have passed Blackhorse Townhomes, Estancia Hotel, Spa, and Conference Center, the Salk Institute for Biological Studies, San Diego’s celebrated Torrey Pines Gliderport, the Sanford Consortium for Regenerative Medicine, and UC San Diego’s Torrey Pines Administration Center.<sup>100</sup>

The intersection of Torrey Pines Road with Genesee Avenue was re-configured in the early 1990s by relocating UCSD’s northern entrance and widening both heavily trafficked thoroughfares. Turning right on Genesee Avenue and proceeding eastward and downhill alongside UCSD’s northern border, John Jay Hopkins Drive appears on the left offering access to the General Atomics complex before descending to Interstate (I-5), now widened from an original four lanes to eight, four in each direction.

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<sup>99</sup> Author interviewed Robert Mosher in 2014. See also Dirk Sutro, *UC San Diego: An Architectural Tour*, 34-37.

<sup>100</sup> UCSD students now residing on campus number 10,800 (44% of student body). The Gliderport preceded Camp Callan and was restored to its original function soon after WWII.



**General Atomics Campus - 2020**

Turning south on I-5 and looking eastward, the UCSD Medical Center complex looms over the freeway on terrain that once served as the target zones for Camp Matthews firing ranges. Structures include the Jacobs Medical Center and Altman Translational Institute, and beyond them the Hamilton Glaucoma Center, Jacobs Retina Institute, Koman Family Outpatient Pavilion, Moores Cancer Center, Perlman Medical Offices, Radiation Oncology’s PET/CT Center, Ratner Children’s Eye Center, Shiley Eye Institute, the Sulpizio Family Cardiovascular Center, and Thornton Hospital. Also found on the East Campus are the Preuss school and a science research park that includes the Center for Novel Therapeutics, Kyowa-Kurin Pharmaceutical Research, and the La Jolla Institute for Allergy and Immunology.<sup>101</sup>

Transit between west campus and east is facilitated by several bridges now crossing I-5: one at La Jolla Village Drive, another at Genesee Avenue; a third within the campus on Voigt Drive currently scheduled for upgrade, a newly-opened Gilman Bridge linking the medical school campus on the west side with its medical center complex on the east side of the interstate, and now a fifth used exclusively by San Diego’s light rail, the UCSD Blue Line.

After exiting I-5 on to La Jolla Village Drive and heading west, we pass on the right the VA Medical Center, the School of Medicine, and the Skaggs School of Pharmacy and Pharmaceutical Sciences, then on the left, the Glickman Hillel Center and at the intersection with Torrey Pines Road on land originally intended for a community theater, the J. Craig Venter Institute (JCVI), a laboratory committed to genomic research. La Jolla Playhouse eventually found its home directly across the street within the “Jacobs Theater District” that includes the Mandell Weiss Theater, Mandell Weiss Forum, Sheila and Hughes Potiker Theater, Theodore and Adelle Shank Theater, and the Molli and Arthur Wagner Dance Theater.<sup>102</sup>

Behind the theatre district stands Revelle College, named for the campus founder and built on an early parcel of land approved by San Diego voters, then granted by the City Council when planning for a full campus

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<sup>101</sup> La Jolla campus hospital inpatient capacity is now 418 beds, and when added to 386 beds in Hillcrest, gives the combined UCSD Medical Centers a total of 804 beds.

<sup>102</sup> The Mandell Weiss Center for the Performing Arts at the Joan and Irwin Jacobs Theater District includes the five venues mentioned above. Also, in Galbraith Hall nearby, where the Department of Theater and Dance is based, a small theater is named for the founding department chair, Arthur Wagner.

was still indefinite. Its four earliest structures, provisionally named Buildings A, B, C. and D, are now the Central Utilities Plant, Urey Hall, Mayer Hall, and Bonner Hall respectively. Revelle Plaza is a central gathering place defined by an early master plan that envisioned grand spaces for each of twelve colleges.<sup>103</sup>

Also functioning on the west campus and not yet cited are three more colleges: Thurgood Marshall, Earl Warren, and Seventh College with its building complex now under construction. Also, the Joan and Irwin Jacobs School of Engineering, the School of Global Policy and Strategy, the Theodor and Audrey Geisel Library, the Institute of the Americas, Centers for Magnetic Recording Research and Molecular Genetics, Mandeville Art Galleries, Franklin Antonio Hall, the Institute of Telecommunications and Information (Calit2), San Diego Supercomputer Center, Powell-Focht Bioengineering Hall, the Stuart Collection of Public Art, Conrad Prebys Music Center, the Sol Price Student Center, Student Health Services, a Career Services Center, the Recreation-Intra-Mural-Athletic-Complex (RIMAC), the Alex Spanos Athletic Performance Center, Canyonview Aquatic Center, more residential communities, and the Ida & Cecil Green Faculty Club.

Following a left turn just beyond the Venter Institute, we descend into the SIO campus, past the Stephen Birch Aquarium, and complete the tour at our starting point on La Jolla Shores Drive, a journey that offers a capsule view of UC San Diego facilities now operating on more than 2000 acres in more than six hundred structures occupied or newly built over a span of six decades, a thriving campus that experienced its fastest rate of growth during the tenure of Chancellor Richard Atkinson from 1980-1995.<sup>104</sup>

## Exceeding Expectations Since 1912

The bounty of marine life in waters off La Jolla Shores yielded so many publications for Professor Ritter and his colleagues that they earned well-deserved academic recognition and received in 1912 a permanent coastal base linked to their home institution. UC Berkeley might have been satisfied just to see marine biology programs flourish in La Jolla, but Ritter and subsequent directors elected to recruit physicists and chemists and geologists, all of them curious about oceans covering 70% of the earth's surface. The outcome today is an institution capable of spreading its influence and expertise worldwide. By the mid-1950s, SIO Director Revelle and colleagues were serving as lead planners for the International Geophysical Year (IGY) and soon after that sending their ships and investigative teams to join a fleet of forty research vessels cooperating on a four-year study of the Indian Ocean. These are examples of many similar research expeditions conducted over a span of decades since World War II.

If Roger Revelle had not encountered a forest instead of trees, he might have attained what he originally wanted, a graduate school appended to the institution he already governed. The forest was a population explosion that forced dramatic change in California's educational planning; the trees were top scientists he coveted for La Jolla. Fortunately, Revelle and San Diego were beneficiaries of both the forest and the trees: a major university campus plus a distinguished faculty recruited from the top down. Interviewed late in his career, Revelle insisted that UCSD could not have become a reality five years before or five years after

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<sup>103</sup> The first three Revelle College academic buildings are each named for pioneering faculty: Nobel chemist Harold Urey, Nobel physicist Maria Goeppert-Mayer, and National Academy of Science biologist David Bonner respectively.

<sup>104</sup> A public aquarium has operated for the community's benefit since the beginning of SIO.

it did. Perhaps not the UCSD he fashioned but maybe a campus with a very different character than the one that exists today. Decisions made by committees galore helped Revelle to exceed even his own expectations.<sup>105</sup>

John Jay Hopkins did not live to see a UC campus “built as close to General Atomics as possible.” At the time of his death in 1957, the impact of the “Additional Centers Report” was barely realized. Another two years passed before final approval would come for a general campus in San Diego. But a succeeding President, Frederik de Hoffmann, and fellow scientists at General Atomics saw Hopkins’ dream fulfilled and later exceeded by a proliferation of technology-based institutions developing all around them. Today, General Atomics stands at San Diego’s epicenter for science development, surrounded on the south by UC San Diego and the J. Craig Venter Institute, on the west by the Salk Institute for Biological Studies, Sanford Consortium of Regenerative Medicine, and The Scripps Research Institute, and on other sides by a bonanza of biotechnology development centers:

Agilent, Alexandria Center for Life Sciences, Althea Dx, Ansun BioPharma, Applied Proteomics, Arcturus Rx, aTyr Pharma, Avelas Biosciences, Avidity, BASF, BD Medical Technology, Bio Atla, Bio-Duro, BP Biosciences, Calibr, Celgene, COI Pharmaceutical, Crown Bio, Cytori Synthetic Genomics, Dermtech, Dexcom, DNatrix Therapeutics, Dorris Neuroscience, EpicentRx, F3 Oncology, Fate Therapeutics, GenomeDx Biosciences, Genomics Institute of Novartis Research Foundation, Genea BioCells, GenomeDx Biosciences, GlySens, HD Bioscience, Human Longevity Inc., Illumina, Imagion Biosystems, InhibRx, La Jolla Spectrum, Leidos, Levent Bio, Lilly, Janssen Research and Development (JLABS Division of Johnson & Johnson), Menarini Biosystems, Molecular Assemblies, Molecular Response, Nitto Biopharma, Nutriomix, Organogenesis, Pacira Pharmaceuticals, Pfizer Global Research and Development, Phoenix Molecular Design, Regulus Therapeutics, Sanford, Burnham, Prebys Medical Discovery Institute, SD Medical Systems, Sellus Therapeutics, Sequenom, SGIDNA, Sirigen, Spectrum Imaging, Synthetic Genomics, SynThorx, Takeda Pharmaceuticals, ThermoFisher Scientific, Tealium, TP Therapeutics, Vertex Pharmaceuticals, and probably by now more.

Not far away are Qualcomm’s facilities spread over eleven sites, all of this spawned by visionaries like John Jay Hopkins and Roger Revelle and many more who reacted decisively to concerns about the city’s possible descent into post-WWII collapse.<sup>106</sup>

Despite its resolve to stand fast, the Navy did finally vacate Miramar, transferring its TOPGUN fighter school to a more rural location near Fallon, Nevada. As its final demonstration of supersonic power, twelve F/A-18 Hornets and four F-4 Tomcats lifted off the Miramar runway on May 30, 1995 and overflew the UC San Diego campus in close order. Meanwhile, the 3<sup>rd</sup> Marine Aircraft Wing was looking to move from its base in El Toro, CA, and happily re-established itself on the 23,000-acre facility now re-named Marine Corps Air Station (MCAS) Miramar. Although people on campus nowadays pay little mind to Marine helicopters or fixed wing aircraft, a few vocal property owners in La Jolla forward complaints about noise from an occasional helicopter, light aircraft, or commercial jets on approach into San Diego International Airport.

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<sup>105</sup> Judith and Neil Morgan, *Roger*, 84-92.

<sup>106</sup> A *Reuters* survey cited Torrey Pines Mesa as home to five Nobel laureates, 45 of the world’s most important scientists, and 26,000 people working on behalf of science innovation. According to the *San Diego Union-Tribune*, July 30, 2020, San Diego stands third in California for total life science employment now exceeding 50,000, and third in the nation, behind the Greater Boston Area and California’s Bay Area for life science achievement.

City Council members with jurisdiction over the coveted San Diego land purse waited longest for their expectations to be satisfied. Support in 1924 for a UC campus led to a pledge of land but they lost to Los Angeles. As early as 1955, council members knew something was brewing in La Jolla; was it simply SIO feeling hemmed in or was it something more? When empty rumor became serious dialogue about education at the highest levels, the Council made clear what it wanted for San Diego: more opportunities for undergraduate education. In response to a public vote, the land purse was finally opened in 1961, but only 58.5 acres were granted for what still sounded like a public-funded Cal Tech. When a general campus became a certainty, the City Council's generosity suddenly expanded to 486.3 additional acres that when added to prior city grants totaled 722.7 acres, wise use of the city's "Hispanic dowry" for a major university.

If that record falls short, consider what City Council members realized financially in 1991 when Roger Revelle took action to save them several \$millions. Appearing in San Diego's U.S. District Court, he first qualified himself as an "old-fashioned oceanographer," then testified that coastal cities should be spared the strict secondary sewage requirements imposed on inland cities: "Fish need to eat and that sewage provides a lot of nourishment for sea life." The judge sided with Revelle and a grateful City Council saluted their "old-fashioned oceanographer" and the scientific community it shared responsibility for bringing to town.<sup>107</sup>

With regard to academic expectations alone, the current record speaks for itself: For academic year 2021-22, UC San Diego enrolled nearly 41,000 students and will grant just over 10,000 undergraduate and graduate degrees. UCSD Alumni currently number in excess of 200,000, many residing in or near San Diego and participating actively in the regional economy.

Who could possibly inform us today about what to expect from UC San Diego in another sixty years? Perhaps a brilliant student currently enrolled in one of sixty graduate programs, someone who can easily see beyond what already exists, a person who can transform dreams into reality, somebody like a Roger Revelle who, late in his career, reflected on a life filled with opportunities:

**"From 1955 to 1961, I experienced the joys of helping to found a new university. As with most things one does for the first time – making love, getting a PhD, becoming a father – the task was completed with more enthusiasm than knowledge."**

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<sup>107</sup> Judith and Neil Morgan, *Roger*, 90.

## Epilogue<sup>108</sup>

Now into its seventh decade of astonishing growth and widely acknowledged w as a gifted institution, UC San Diego continues to rely on the talent of its planning staff to meet the spatial requirements of an increasing student body and an expanding academic agenda. What this means is additional space for teaching and research, faculty and academic support, student housing, also a renewed capacity for sustained maintenance of existing structures, and an updated focus on transportation services.

Land currently owned and occupied by UCSD totals 2,144 acres apportioned as follows: (1) La Jolla campus – 1,152 acres; (2) outlying properties including Blackhorse and Estancia, Mt. Soledad’s tower services, Camp Elliott research facilities, UCSD Medical Center Hillcrest, and the Nimitz Marine Facility – 427 acres; and (3) land designated for the UC Natural Reserve System – 565 acres.

Currently under the leadership of Chancellor Pradeep Khosla, UC San Diego embarks on the next phase of its development, one that prepares for a student body increasing from 41K to 45K, faculty and staff growing from 20K to 23K, and occupied facility space expanding from 19M to 25M square feet.

Vehicular traffic will undergo moderate change but public transportation access has multiplied with the arrival of light rail on campus. The UC San Diego Blue Line commenced operation in late 2021, its trains arriving from as far away as San Ysidro via downtown, stopping at the VA Medical Center, then at Gateway Center in Pepper Canyon before proceeding through campus and across I-5 to UCSD Medical Center La Jolla and terminating at the Westfield (UTC) mall.

Campus real estate specialists, who find and rent space for university programs, list more than 1.4 million square feet now under lease, mostly for the UC San Diego Health Care System, also for UCSD Extension, and several academic departments. Recently occupied downtown is a 66,000 square foot building, ‘UC San Diego at Park & Market,’ with lecture, exhibition, and performance spaces, as well as a rooftop garden, small amphitheater, restaurant, and off-street parking.

Facilities recently completed include the North Torrey Pines Living and Learning Neighborhood, an Innovation and Design Center, North Mesa Graduate Student Housing, a Marine Conservation and Technology Facility for SIO, and Franklin Antonio Hall. Currently under construction: the 2850 seat Epstein Family Amphitheater, a Gateway Center accommodating the International Center, UCSD Alumni, and much more, and the Theater District Living and Learning Neighborhood.

Pedestrian and bicycle promenades are being revised to better link new campus developments with the old. But who believes that anything about UC San Diego, since its 1960 dedication, qualifies as being old?

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<sup>108</sup> Projections courtesy of Joel King, UCSD Architect; Robert Clossin, UCSD Director of Planning; and Jeffrey Graham, UCSD Director of Real Estate.

## Acknowledgments

Keenly aware of my interest in local history, UC President Emeritus (and former UC San Diego Chancellor) Dick Atkinson called my attention to past UCSD histories that deal incorrectly with campus land acquisitions. The reason, I discovered, was that prior works had not drawn from nor cited the original deeds. And so, I began my search and it took nearly a year.

Pertinent campus deeds of trust are held in Oakland by the Treasurer's Office of UC Regents. Apparently believing that I represented some kind of a Woodward or Bernstein intent upon muckraking university development, they put me off for months, insisting for example that I file UC's equivalent of a Freedom of Information Act request. Fortunately, good friend and neighbor Peter Preuss, at the time UC San Diego Alumnus Representative to UC Regents, came to my aid.

With a set of deeds finally in hand, I turned next to my attorney friends for help with interpretation. After all, what did I know about a grant deed vs. a quitclaim deed? Upon review of impending land parcel transfers and the beginning of construction, I took note of the major thoroughfare revisions required. And as I studied documents pertaining to the deliberations of myriad committees and commissions, state assemblies and federal legislatures, both a city council and a county board, and even military high commands, I found that opinions varied widely about what sort of new university San Diego should anticipate and then support. This all should explain my subtitle.

Librarians and archivists, I've learned, are worth even more than their weight in gold. And so, I applaud the following along with their staff: Ellen Guillemette: Command Museum Archivist, Marine Corps Recruit Depot; Jane Kenealy: Research Specialist, San Diego History Center; and Lynda Claassen: Director, Mandeville Special Collections at UC San Diego's Geisel Library.

For graphic design and photographic editing, I am most grateful for Alice Harmon's remarkable skills. Both of us have benefitted from access to image collections maintained by the USMC Command Museum, Torrey Pines State Reserve, La Jolla Historical Society, Scripps Institution of Oceanography, Mandeville Special Collections, and the U. S. Library of Congress.

Countless readers, Walter Munk notable among them, have from the outset of this project offered their stories and revealing commentary, largely based on working for or residing near a burgeoning UC San Diego campus. Much of what they have related is now a part of my narrative.

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- [WM] Walter Munk: Interview 2017; "Sverdrup and the War Years," 2002.

### CHRONOLOGY;

- 1769: Father Junipero Serra dedicates Mission San Diego de Alcalá. [KS]
- 1791: King Carlos III of Spain grants military commander San Diego land extending two common leagues in each direction from the Presidio. [CC]

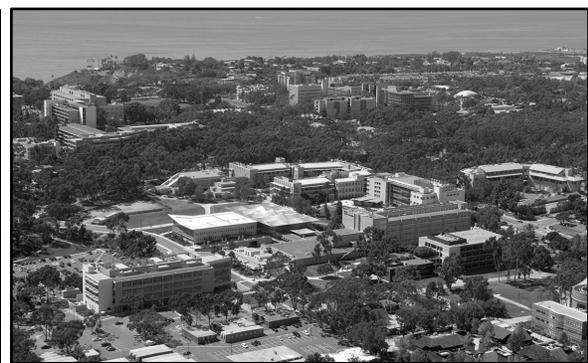
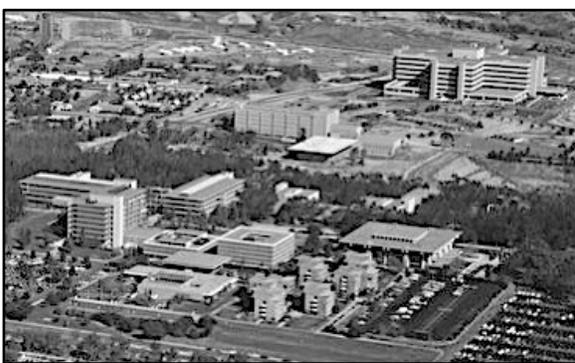
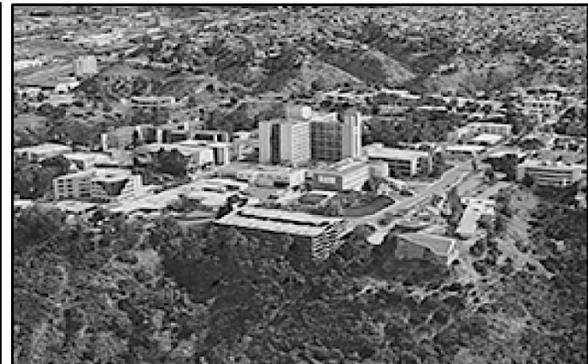
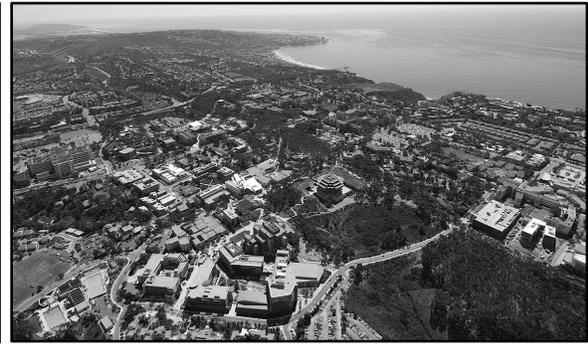
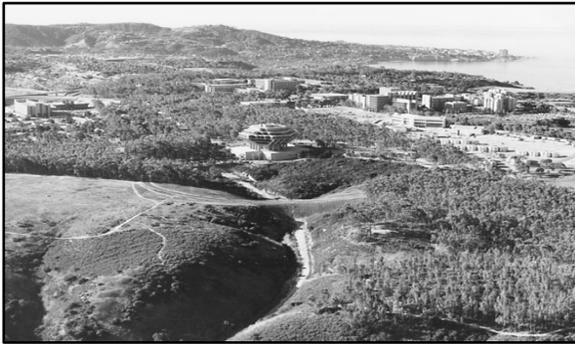
- 1834: Spanish Land Grant attached to the Mission of San Diego de Alcalá is conveyed to Pueblo San Diego by Republic of Mexico. [CC]
- 1845: Santiago Arguello, appointed by Governor as Prefect of San Diego Pueblo, commissions survey and map of local pueblo lands. [CC]
- 1846: Map of surveyed pueblo lands, drawn by a Captain Fitch, a retired mariner. Marine Corps first arrives San Diego during Mex/Amer. War [CC] [MW]
- 1848: Feb. 2: Treaty of Guadalupe Hidalgo is signed; all disputed lands previously held by Republic of Mexico ceded to the United States. [CC]
- 1850: Pres. Millard Fillmore signs bill admitting California as 31<sup>st</sup> state. [KS]
- 1 1851: California's Act of 1851 demands from all property claimants evidence supporting inherited pueblo land grants. [CC]
- 1855: Contra Costa Academy in Oakland incorporated as College of California. [PP]
- 1862: Lincoln signs Land Grant College Act, aka Morrill Act. Allows for 30,000 acres to each Congressman; 150,000 acres to each State for colleges. [FR]
- 1866: California legislature establishes Agricultural, Mining, and Mechanical Arts College of California on basis of Morrill Act land grant. [PP]
- 1867: College of California offers buildings and lands (north of Oakland) only if a "complete university" is established; Act of 1866 repealed. [PP]
- 1868: Mar. 23, Charter Day: Gov. H. H. Haight establishes University of California; college property site north of Oakland named for George Berkeley [PP]
- 1870: Map of San Diego Pueblo Lands redrawn by James Pascoe and divided into 240 160-170 acre lots; serves as basis for future title searches. [CC]
- 1874: San Diego receives patent confirming its claim, based on Fitch map, 11 square leagues or 48,556 acres equiv. to 6 x 11-mile plot. [CC]
- 1903: William Ritter, UC zoologist sets up lab in a boathouse; meets E.W. Scripps who writes him a check for \$500 (\$14K) for Marine Biological Assoc. [MM]
- 1905: Ritter occupies lab built for him at La Jolla Cove; as predicted by E.W., sister Ellen Browning Scripps adds \$1500 [\$40K] to her family's support. [HR][MM]
- 1906: Ms. Scripps establishes \$50,000 [\$1.4M] endowment for Marine Biological Association; E.W. allows use of his yacht, *Loma*, for exploration. [HR][MM]
- 1907: City Council accepts bid of \$1000 from Marine Biological Assoc. for 170 acres of Pueblo Lot 1298; city installs water line; EW builds road. [HR]
- 1910: Ms. Scripps gives \$100K [\$2.6M] more for endowment; \$150K [\$3.9M] for facilities but with two conditions: Ritter stays & assets given to UC. [MM]
- 1912: July 12: UC Regents accepts assets worth \$300K [\$7.8M] in transfer as Scripps Institution for Biological Research. [HR]
- 1914: USMC 4<sup>th</sup> Regiment lands at North Island under Col. Jos. H. Pendleton; Marines build rifle range for re-qualification. [MC]
- 1915: Marines, needing rural land for rifle practice lease from city 363 acres thirteen miles north; build first range and later buy 545 acres. [RR]
- 1915: Ms. Scripps adds another \$100K [\$2.4M] to SIO endowment. Scripps family support since 1903 now exceeds \$40 [\$10M]. [MM]
- 1917: Navy acquires land for Marine Corps Recruit Depot; (MCRD) becomes nation's largest basic training base. [RR]
- 1925: UC announces name change: Scripps Institution of Oceanography (SIO). [HR]

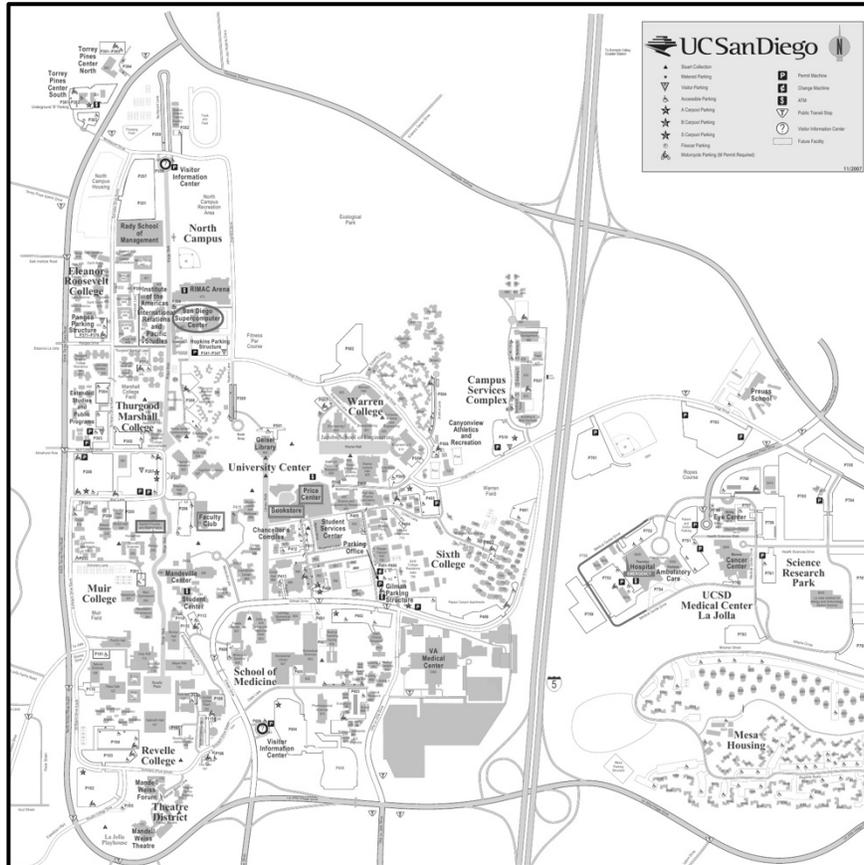
- 1929: Flying A gas station opens Torrey Pines Café, popular with truckers and, after 1963, students with no other eating option nearby. [GS]
- 1931: Pomona College geology graduate, Roger Revelle, comes to SIO as a graduate student; soon after he marries Ellen Scripps Clark. [JN]
- 1936: Revelle awarded PhD; joins SIO faculty; commissioned Lt.J.G., US Navy, Harald Sverdrup appointed SIO Director [JN]] [HR]
- 1940: City Council grants 710 acres of Pueblo Lands for Army use. [RR]
- 1941: Camp named for Robert E. Callan; 5000 troops arrive from Fort Ord; Opening ceremonies Jan. 23. [RR]
- 1941: UC Division of War Research (UCDWR) operating with SIO scientists at U.S. Navy Radio and Sound Laboratory, Point Loma. [RA]
- 1941: Dec. 7: Navy's Point Loma facility first on mainland to learn of Pearl Harbor attack owing to dysfunctional receivers in San Francisco. [BL]
- 1942: Rifle Range re-named Camp Calvin B. Matthews; 122,798-acre Rancho Margarita Las Flores acquired for MC Base Camp Pendleton. [MC]
- 1942: "Sea, swell, and surf" research by Walter Munk and Harald Sverdrup contributes to success of WWII amphibious landings 1942-44. [WM]
- 1945: Dec.18: At 3:30 pm Navy truck loaded with ordnance bound for Camp Pendleton explodes without fatality near present Gilman entrance. [GS]
- 1947: Wm. R. Black purchases from Fred Scripps portions of lot 1312 and 1313; establishes breeding and training facility called La Jolla Farms. [BB]
- 1948: Roger Revelle returns to SIO after helping to organize Office of Naval Research (ONR), model for development of NSF, NIH, etc. [RA]
- 1951: Roger Revelle appointed Director, SIO; faculty buy 42 acres from Chas. Poole for Scripps Associates Estates. [HR] [WM]
- 1954: John Jay Hopkins brings Convair into General Dynamics for ICBM development and manufacturing; states desire for a local UC campus. [MW]
- 1955: San Diego Chamber of Commerce embraces Assemblyman Sheridan Hegland's resolve to study feasibility of a UC branch In San Diego. [NA]
- 1955: Aug.: SIO Director Roger Revelle outlines for Pres. Gordon Sproul "...something like a publicly-supported Cal Tech." [JN]
- 1955: Revelle asks Regents to exchange acreage within original 170 acres for a nearby plot from city for Theatre and Arts Foundation. [DD]
- 1955: Hopkins establishes \$10M applied science center, General Atomics, on land granted by City of San Diego NE of Camp Callan Site. [MW]
- 1955: Councilman O. W. Campbell states the public will is not for a Cal Tech; votes land for "a school for students wanting to study engineering." [CM]
- 1955: C of C delegation led by attorney Jim Archer goes to LA for UC Regents meeting; They propose "Institutes of Pure and Applied Physics and of Mechanics." [NA]
- 1956: Hopkins to Sproul: GA pledges \$1M for graduate institutes. Sproul appoints Seaborg whose committee. approves Revelle plan for grad. Schools. MW] [NA]
- 1956: Acad. Senate Committee on Educ. Policy finds no need for anything but SIO, later reverses position; approves plan for graduate schools. Regents vote \$15M. [NA]

- 1956: Meeting at LJ Women's Club; Revelle describes his vision and says there might be 1000 students; any prospect of a football team wouldn't win. [NA]
- 1956: San Diego voters approve giving UC 40-50 acres, part of Pueblo lot 1311, for graduate institute to be called School of Science and Engineering. [NA]
- 1956: Pauley proposes UCLA handle planning for San Diego Institutes; Revelle declares this notion "preposterous." [NA]
- 1956: LJ Town Council asks SD CC to urge removal of Camp Matthews; Marines answer: "We have no intention of leaving." [MC]
- 1957: May: UC Regents Finance Committee outlines a five-year plan for building and site development in the amount of \$24M. [NA]
- 1957: "Additional Centers Report" serves as basis for Clark Kerr's Master Plan for Higher Education; ranks San Diego 2nd most deserving site. [NA]
- 1957: Regents, approve capital investment budget for science and technology graduate school (\$2M in '58-59 and \$3.3M in '59-60).
- 1957: Sproul proposes campus be named UC La Jolla. Community and City Council responds negatively; LJ is just a neighborhood of the city! [CM]
- 1957: Revelle begins recruiting institute faculty to SIO using federal grants and promise of full rank appointment following full campus approval. [JN]
- 1957: Regents in Lake Arrowhead consider "Additional Centers" report based on population projections for CA; vote approval for three new campuses. [NA]
- 1957: At meeting of the Bohemian Club, Pauley learns Jim Copley thinks ideal site is mesa above SIO; Copley imagines availability of Camp Matthews. [NA]
- 1957: Pauley insists land for expansion should be provided at no cost to the Regents; RR worried stipulations will limit progress. [NA]
- 1957: October: Soviets launch Sputnik; Eisenhower thinks Soviets have more scientist/engineers. Wider demand for better science funding. [CK]
- 1958: Architects Pereira and Luckman advise Regents on San Diego site choice. Lake Murray too costly; public resistance to Balboa Park. [NA]
- 1958: Gen. T.A. Wornham, Commander MCRD indicates to realtor Phil Anewalt Marines amenable to moving their training to Pendleton. [NA]
- 1958: Architect Charles Luckman suggests purchase of LJ Farms; tells Regents it might cost \$1.75M. Pauley disapproves at this time. [NA].
- 1958: Harold Urey, Nobel Laureate, from Univ. Chicago comes to UCSD as University Professor of Chemistry giving university instant legitimacy. [JN]
- 1958: James Arnold from Princeton appt. Prof. and Chmn. of Chemistry. First graduate students arrive with newly recruited faculty who also bring their grants. [NA]
- 1959: Regents committee grants final approval despite Navy objections; Pauley balks; Kerr drops word 'general' so measure can pass as "university campus." [NA]
- 1959: Oct.: Regents give final approval for a full San Diego campus despite objections from Pauley. This is meeting with the noise arguments. [WM]
- 1960: June 16: Final resolution of conflict over 27 acres of land given by City Council to Jonas Salk that RR insisted were promised to UCSD. [SB]
- 1960: Keith Brueckner, U. Penn. appt. Chair of Physics; David Bonner, Yale appt. Chair of Biology; Sol Penner, Cal Tech appt. Chair of Engineering. [NA]

- 1961: Rep. Bob Wilson intro. H.R. 3099 for transfer of Camp Matthews (545.3 acres) to State of California; Senate bill follows House bill. [NA]
- 1961: Navy opposes bill transferring Camp Matthews because a university concerned about noise might try to influence flight operations. [NA]
- 1961: Feb, Kerr informs Revelle that Herbert York is chosen to serve as inaugural Chancellor of UCSD; newspapers characterize York as a “whiz kid.” [NA]
- 1961: Revelle writes “Dear Clark” letter, expresses disappointment; later dedicates buildings of UC School of Science and Engineering. [NA]
- 1961: RR writes VP Waldman urging UC to request 3000 acres of surplus Camp Elliott land for rocket research, particle accelerator, etc. [NA]
- 1961: Mayor Dail informs Pres. Kerr city has rezoned land north of General Atomic from ‘residential’ to ‘research development.’ [NA]
- 1962: Kerr and Gov Brown go to DC to persuade DHEW Secretary Ribicoff to give up Camp Matthews land. [NA]
- 1962: Senate passes Camp Matthews Bill on Aug. 8; House on Sept. 5. [NA]
- 1962: Mar. 22, UC Regents grant use of SIO land to federal government for a Bureau of Fisheries Research Laboratory. [DD]
- 1962: Sept. 14, Pres. Kennedy signs Camp Matthews Bill. VA later given back a piece of the property for an 800 bed VA hospital [NA]
- 1963: Fall: 120 graduate students enrolled in School of Science and Engineering [NA]
- 1964: March 12, city conveys 456.5 acres; UC pays \$340k for utilities, \$99K for LJ Scenic Drive & Genesee Avenue revisions. [DD]
- 1964: Camp Calvin B. Matthews ranges re-located to Edson Range at Camp Pendleton. [MC]
- 1964: Sept.: First undergraduates, 121 men and 64 women, Freshmen thru Seniors, enroll at UCSD; all but 30 are science majors. [JM]
- 1964: Sept. 23, signed quitclaim deed for transfer of Camp Matthews to UC Regents. Oct. 6, Camp closes; Oct. 7 Chancellor York accepts key. [DD]
- 1964: Kerr announces UCLA historian John Galbraith to be 2<sup>nd</sup> UCSD Chancellor; Faculty now numbers 80 incl. 2 Nobelists and 13 members of NAS. [NA]
- 1965: UCSD receives 507 acres of Camp Elliott for animal care facility, et al. [NA]
- 1965: Bids received by Caltrans for I-5 segment within former Camp Matthews.
- 1965: First College named for UCSD’s founding father, Roger Revelle; first UCSD graduation, yielding first alumni. [BS] [JN]
- 1966 UCSD takes over operation of University Hospital from SD County. [CS]
- 1967: Deed recorded for 132-acre purchase of portions of LJ Farms subdivision; including unsold lots, track, stable, Black residence, and knoll. [DD]
- 1968: Graduation of first four-year class; 1<sup>st</sup> Medical School class registered. [BS].
- 1975: May: Transfers allowing UC use of Point Loma land for SIO fleet. [DD]
- 1981: UC Regents purchase University Hosp. from San Diego County for \$17M. [CS]
- 2014: Oct. 7, 50<sup>th</sup> Anniversary event attended by the Edson Range Commander, Mrs. Herbert York, and WWII veterans who trained at Camp Matthews. [TB]

# 60 Years of Astonishing Structural Growth and Academic Development





Campus maps highlighting evolution of transportation access to the campus;  
 Below, artist's rendering of UCSD Blue Line (white dotted line) with stations.



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