Some Thoughts Concerning Fountains
I have spent a considerable amount of time designing fountains and have found them to be one of the most frustrating aspects of the civilized landscape. Much of the frustration comes from the nature of water itself: It freezes, it leaks, it sprays in the wind, it provides an environment for growing slimy things, people pour soap in it and drown in it. It seems odd to say it, but because we expect water to be clean and to behave the way we want it to, water needs to be taken care of and it is one of the things we like to do the least.

So the governing factor in the design of fountains is the use and enforcement of the maintenance contract. After the photographer has left and the article is (ironically) splashed across the pages of the magazine, who takes care of the bloody thing and for how long? If you think I am exaggerating, you might start by looking closely at all fountains and you will be amazed at how many of them are not working. You might also ask Mr. D’Este what the fountain maintenance bill was last year for his house at Tivoli.

I have never quite come to terms with the problem of sculpture as fountain or fountain as sculpture. No matter which way you approach this concern, formal and mechanical problems abound. Aesthetics and practicalities collide in ways I thought reserved for more utilitarian items. Part of this problem comes from fountains often being located in leftover pieces of property, simply trying to mask road noise or provide visual punctuation. Seldom are they developed as a group or sequence of water events, and very seldom are they the primary reason for a civic space.

Scale is always a particular difficulty for fountains of any kind. Is physical intimacy with the water desired? If so, what do the attorneys have to say about intimacy and what does this mean in terms of liability? The little town I call home has about forty thousand people and our phone book has one page listing artists and architects and forty-two pages of attorneys. This gives some inkling about our relation to liability and pools and sometimes fountains are subjects of severe scrutiny and debate.
This fountain delivers about three hundred gallons per minute. The primary intention of the complex was to use the water sounds to mask the noise from the adjacent busy street. An aquatic buffer between street and condominium housing.
On the day of this site visit, the complex was already open to the public, but we had to find one of the workers to get the fountain turned on for photographs. He probably turned it off after we left. A sadly common occurrence, where the janitor has control of our supposedly public amenities. Especially fountains. Four years after the complex was built and I was living thousands of miles away, I received a telephone call from the developer who informed me that they were filling in the fountain to use it as a planter and wanted to know if I wanted to buy back the stainless steel fountain elements. I almost crawled through the telephone wires to strangle him.
Traffic triangles in America are some of the least developed and most ignored urban spaces. We would do well to look to England and France to see what they have done with many of their roundabouts. This triangle in Denver was a competition instigated by the city in conjunction with the adjacent Cherry Creek Shopping Center. I have no recollection why I was selected for the commission. The basin is eighteen inches deep to conform with public safety code of the time. (1972) Notice the unscripted child in the foreground is running toward the water.
The construction of this project was possible because of and supervised by Robert Behrens.

The pointy upward bits in this and the previous Monaco Boulevard fountain are a rather obvious reference to the Rockies being this regions’ most important source of water. A major consideration in the design of this fountain was the intention to have it left on during the winter so it would freeze and make icicle sculptures. I have visited in winter and it was turned off. I have never seen a photograph to indicate that this has icicle idea has ever happened.
Another left over. This time a traffic circle on private property in the front drop-off zone of a bank in Oxnard California. (1985)

I produced numerous drawings at the outset of the project, but they all seemed like arbitrary re-hash from earlier projects and had no connection to place.

I thought of ways I could tie the islands together as a group and worked with fog and clouds as a possibility. All the while thinking that there were three types of viewers. Pedestrians, people passing by in cars and hundreds in the bank tower looking down from above. (Who might think this proposal looked like fried eggs instead of islands.)

Research into the region discovered a close connection to the Channel Islands. (Now a National Park.) They consist of eight islands in a 160 mile long archipelago and Anacapa is the closest island to Oxnard.
Those who know the most about the islands and the coast are the sailors, fishermen and surfers and I thought it appropriate to use their navigational language to understand the relation between the coast and the islands.

I went to the final presentation with ten alternatives, but was most enamored of the above submittal because it addressed the land as well as the island of Annacapa. The presentation was made to the building developer and owner rather than the tenant bank. The owner was a cartoon. Sitting at a huge desk in a loud Hawaiian shirt smoking a long cigar and flashing a Rolex. He was surrounded by suits. Six attorneys. The scene would have been hilarious, if it were not serious business. I made the presentation with a heavy emphasis on why I thought the Annacapa alternative was the best choice. It had the least amount of water and maintenance, distanced itself in a way that reduced the ‘attractive nuisance’ factor and explored the idea that islands were underwater too. The attorneys argued that kids would throw soap suds in the water and that the glass would be expensive to clean. I countered by saying “Kids throw soap in all fountains, cleaning it up is just a cost of doing business.” “In regard to cleaning the two glass panels, I calculated there are seven acres of glass on this building with special window cleaning scaffolding lowered periodically from the roof and you don’t seem to be complaining about that cost.”

I got paid for the proposals, but I was really glad I didn’t get the commission.
WATER: TO FLOW IN CITIES

By Gary Dwyer

Proposal: Laminated stone fountain for City of Lakewood, California. Water does not spray from stones, but rather leaks out of the cracks between the layers.

As a child growing up in an arid climate, I wondered a great deal about water. My school bus route passed by a large stone fountain that may have been concrete — but to a child all things that are rough, hard and gray are stone. In the middle of this stone basin stood a bronze statue of a horse and rider meant to memorialize someone I have long since forgotten. What I have not forgotten is that in all the years that I went past this fountain, I never saw a drop of water in it. Never! I always looked in the hope that some splashingly wonderful display would appear, but that dry, brown, mute statue just stared back at me. I wondered why.

Children who play at the edge of the sidewalk where it meets the street are sometimes known to their mothers as guttersnipes. This partially affectionate name has to do with the tendency of children to play all manner of games with a trickle of water in the gutter; mostly, they are just wondering. What is it that causes this sense of wonder? Why do we stand on the shore and look toward the water and not the land? Why do we find the simple sound of moving water so soothing? It may be best only to wonder, but that presupposes a quest for answers. We shall try some on to see how they fit.

Our understanding of water comes to us as an irrational mixture of biological necessity, contemporary information and ancestral memory. The attraction to water is rooted in our intuitive recognition of its biological necessity. The concept "spring" is not merely an object, but also a specific place and time. The spring as the source of the beginnings of life may, in fact, come from our prenatal environment. Water from the sky or from the ground has long been understood for its powers of purification. The Oracle at Delphi, having recovered from her hallucinations, bathed in a spring to renew her virginity. A contemporary vision was provided by the popular song lyric, "When the rain washes you clean, you will know, you will know."

Springs are nature's fountains. As water moves from the source point, it collects. Unlike dust, it has a natural affinity for itself that produces concentrations in channels and pools. This might sound obvious and irrelevant, but if we are to make better water features, we must understand the nature of water. Japanese garden designers believe it is the basic nature of water to go down, not up. For centuries, their gardens have reflected this simple fact, one that most designers of water features have yet to recognize. Similarly, understanding the principles of thermodynamics and entropy may provide further insights to water feature design.

The position of water in a space is just as critical as how water moves. When Louis Kahn was having difficulty designing a fountain for the Salk Institute, he asked Jonas Salk for help. Salk said the water of the proposed fountain should be at ground level. When asked why, he simply replied, "Because that is where it belongs." This lesson is best exemplified by a magically lyrical pool at Philip Johnson's home in New Canaan, Connecticut. His pool (not pond) is reached by crossing a narrow footbridge with no handrails. The pool is hemispherical, deeper in the
be made to their furniture. Johnathan Crap is credited with bringing a convenient resolution to this whole matter by designing the ball cock siphon water closet. Not only are fountains of the Crap design more numerous than all other fountains, but they have, by virtue of the water-carriage sewage disposal system, removed the understanding that water will treat us the way we treat it.

Since the industrial revolution, we've tended to view water with the eyes of the engineer. A sophisticated series of dams on the Tennessee River allows us literally to turn the river on and off like a brass spigot; yet we seem incapable of deciding to exercise this formidable power. Many engineers can wax eloquent and discuss channel roughness coefficients and the discharge rate of various sizes of pipe, but surprisingly few are willing to address the following kinds of topics. Why should America be one of very few countries that use potable water in their sewage disposal systems? How might imaginative engineering provide aesthetics and function? The irrigation design systems for flooding lower grass areas at both the University of Arizona and the Court of the Oranges in Seville use pavement and irrigation in concert with aesthetic design; both systems integrate quality engineering and design.

We value things by necessity. Whether in the Islamic paradise garden or the Roman Catholic use of “holy” water, reverence for water originated in the desert home of the great religions. If wine is the metaphorical blood of religious leaders, then water, specifically fresh water, should be considered the blood of the land. Evaluation of this type is necessary because the best water features, natural or manmade, have always been spiritual, poetic and contemplative. Yet the large percentage of contemporary water features lack purpose; most merely fill up the space between buildings. Evidence of this lack of purpose is borne out by the fact that the most consistently ill-maintained element in the American landscape is the fountain.

An interesting case in point is located in downtown Los Angeles. Civic Center Plaza has an enormous fountain complex I have never seen operating. I have been to the Civic Center only on weekends when the fountains are turned off — not for economy of operation but because the janitor has the key to the pumps, and he will run them when he sees fit. This is all the more interesting when one realizes that the highest building in Civic Center Plaza is not the courthouse or City Hall, but the Department of Water and Power. Water is power in Los Angeles, but the power is in relation to the control of water distribution rather than a fountain display. The janitor walks home jingling the keys in his pocket.

Fountains and water features must provide life energy to our urban deserts, rather than act as big toys for the powerful. Touring the great water gardens, like Versailles, is not the same as living there. We see those fountains as marvelous oddities, but their owners saw them as civilized refinements to living. When we as a culture and as designers realize that water is a necessary component of urban mental health, the fountain not only will be maintained, but the janitor will want to work on weekends.

Once we have convinced corporations and city officials that fountains and other water features are necessary to urban life, the next issue is a Hydra-headed monster that is variously called energy consumption, water conservation and funding sources.

The desert planet described by Frank Herbert has been heralded by environmentalists as an example of true understanding of water conservation. To adopt the hoarding posture in the novel is to miss the point entirely. Real conservation is having water do as many things as possible, in a definite sequence, before you let it slip away.

Fountains should begin (again) to answer the question of how little water can be used rather than how much. Cities and their pavement concentrate rainwater runoff, and yet there are no catchment basins, no cisterns. Mountain snows and valley dams are supposed to take care of that, but it is obvious now that they cannot. I know of only one water project in the United States that uses the Archimedean screw to raise water without an electric pump. Why not more? I have a suspicion that gravity gray water from office building washrooms could provide the supply and the power for most urban fountains. For air conditioned office buildings, fountains may provide an economical outlet for the heat collected in the refrigeration process. There is no law that says the water in fountains must be either potable or cold. Gray water,
after flowing through the fountain system, can be channeled to provide irrigation. The relationship between surface area, volume and loss to evaporation may provide clues to more meaningful design. Soon solar-powered pumps may be common enough to help us forget about those fountains that wasted energy and water.

The counter argument — and a false one — is that the higher initial cost is not justified by the results. We air-condition buildings despite the expense and energy consumption, because it makes life easier; some would say, better. Of course, we could survive with common water wells in our cities in place of hot and cold running water. But water at the tap and in fountains is necessary to our health — physical, not just mental health. Running water generates positive ions which counteract the negative ions — a severe depressant — produced in great quantity in our cities. A growing body of scientific data is measuring the value of such things that once were judged only by subjective aesthetics. Visual, tactile and acoustic access to water is not only desirable, it is a necessity.

Water's viability in the urban landscape also must confront the question of form. In the contemporary American language, water owes much to the work of Lawrence Halprin, Angela Danadjieva and other Halprin associates, but much of Halprin's work has been a concrete rehash of Renaissance and Baroque work.

It is time for designers to find new inspirations, as in the allegorical work of John Hoge. Noguchi's fountains for the Osaka World's Fair show that we can do much more with water than simply shoot it up in the air. Little has been done with flat water; and where are the modern whirlpools? Oriental designers alone have been able to work successfully with non-water water. The dry stream bed of many Japanese gardens is a starting point for the kind of allusion and illusion that will help us appreciate what little water we actually have.

At this point, we need to explore our purpose and expand our design vocabulary. Very few alternative fountain materials, such as ice, steam, mercury, oil, colored water, fiberoptics, fire, neon, or whiskey, have been investigated with enough commitment to produce conclusive results. Water in our cities, good water with spirit (aqua mineral con gas), can surpass the allegorical function of Rome's Trevi fountain. It may go beyond irrigating the gutters of our streets. It will become the visible lifeblood of our communities.

NOTES
1. “Bare Trees” by Fleetwood Mac, 1972, Warner Bros. Records, ASCAP.
I have begun to wonder what it is that we expect from fountains and have concluded that we expect civilization. I mean that in the sense of civic. The common good. The collective will. We build fountains because we can and because they are an expression of exuberance uplift and glee. It is not accidental that children run toward the water.

The rub comes when we have to take care of the bloody things. Somehow landscape maintenance is more repugnant than other kinds. We have so distanced ourselves from the Earth and its processes that the idea of maintaining something as exuberant as a fountain seems like a costly extravagance. This may be true in America, but thankfully it is not true everywhere in the world.

For a time I lived in the French town of L’Isle sur la Sorgue and occasionally walked to the nearby village of Fontaine de Vaucluse. This village inspired the poets Frédéric Mistral, François Pétrarque and the source for their inspiration is at the head of the valley where the Sorgue river comes forth from out of nowhere. Ninety cubic meters per second is an impressive sight and I have begun to think that the Fontaine de Vaucluse is what we expect from American fountains. They are supposed to issue forth spontaneously, require no attention, and go on forever. Wouldn’t it be wonderful if it happened like that everywhere?