

# BPAA Newsletter

Battle Point Astronomical Association, Bainbridge Island, WA

ISSUE 59: SPECIAL ISSUE, SEPTEMBER 2003

**Celebrating the Life and Work of  
JOHN HARRISON RUDOLPH  
August 14, 1926 – September 7, 2003**

Architect, Archeoastronomer, Facility Director and Co-Founder of BPAA

*“To give, and give, and give again, what God hath given thee;  
to spend thyself nor count the cost; to serve right gloriously  
the God who gave all worlds that are, and all that are to be.”*

Geoffrey A. Studdert-Kennedy (sung in tribute to John at the memorial service)

“Work, mundane but important, on the Helix House is progressing for our future home of the Battle Point Astronomical Observatory and Planetarium. The building has been pressure washed both inside and out. The pressure washer was contributed by Vern Anderson of Island Center Rental with yours truly doing the washing. The interior perimeter trenches have been cleared of trash, dirt, gravel and various pieces of debris by a crew of members including Ed [Ritchie], Andy Mueller, Mac [Gardiner], Rik Gould, Bill Trotter, Don DeVange, Tristan Owens, and myself....

“The first astronomical ‘instrument’ has been installed, with Don Beach’s eager assistance, consisting of a glued together panel of two layers of ?” plywood with a one-inch hole drilled through the center, tapered out wider at 45° toward the inside to allow sunlight to form a narrow beam of light to shine on the interior walls and floor of the Helix House, allowing us to mark various events, such as the summer and winter solstices, the autumnal and vernal equinox, and perhaps the cross-quarter days just as the ancient observers did in the primitive ‘observatories’ both on this continent and in the Megalithic observatories/temples/tombs of Europe. Appropriately enough, our first instrument is a very primitive one with ties to the earliest days of astronomical observation....” (BPAA *Newsletter* No. 1, May, 1994: John Rudolph’s typically meticulous noting of the progress on the Observatory and the names of those who contributed to it.)



## John's Poem in the Time Capsule First published in the *Review*.

### The Time Capsule

May 4, 1996

We launch this little craft,  
a stainless box,  
with messages to the future,  
    A future that we cannot know  
    or barely guess  
    but in which we vest our faith.  
Look behind us, a hundred years, or barely fifty  
and see explosions  
of unforeseeable, unimaginable change,  
    Change at every level  
    of man's experience,  
    Social, technical, psychological and belief.  
So what will you find,  
a hundred years hence,  
or five hundred, two hundred, or a thousand?  
    As others of our culture  
    have launched more  
    cleverly designed, ambitious probes  
That explore our world,  
explore our neighbors,  
the Moon, the Planets and the Sun,  
    We send off this little box  
    laden with our message to show our efforts  
    to make our world a better place.  
Where will you end, Little Box?  
Will you survive  
the various possibilities of time and fate?  
    Until some happenstance, some radical  
    change of use,  
    or fire, or ice, or flood reveals you once again?  
Who will find you?  
and when?  
and what will they learn of us?  
    We, who build this modest instrument  
    of discovery, education,  
    and the search for truth?  
Let us hope that those future souls  
who disinter this relic  
of a then, far bygone age  
    Find us worthy of respect,  
    and that you  
    find them, worthy of our trust.

John H. Rudolph, Architect  
Facilities Director  
Battle Point Astronomical Association



John at the Time Capsule Dedication

## JOHN RUDOLPH AND THE BPAA By Mac Gardiner

### 1. FOUNDERS FLOUNDERING

I had known John before, but our true acquaintance started with a bang one morning in November of 1993. John had asked Ed Ritchie and me to join him for breakfast while he described an emergency facing the Bainbridge Island Park Board. One building, left over from the Pacific Navy Communication facility, had become a historic eyesore, an ugly mess. John, as architect, was told to find a use for it by the next meeting or the whole thing would be demolished. Trust John, he had procrastinated until the meeting was the next night. He wondered if we could build an observatory, and if Ed could build a big fancy telescope for it.

I brought up Boeing, and its big mirrors sitting in storage, and Ed used a napkin to draw up a telescope. John took the napkin and produced drawings and blueprints by the next night. The three of us gave a one-hour presentation, which was bought by the Board, based on the thoroughness of the material presented. My daughter, who was present at the breakfast and the presentation, was hysterical with laughter afterwards. The observatory and the telescope ultimately looked just like the drawings, and Boeing gave us the mirrors.

This set the frame for all the events that transpired over the next 6 years, and cemented our relationships. The BPAA brought us together in an important manner for those years. He and Ed Ritchie and I did things together that amazed even us. What made it so special was that we were such different types, but with (Cont. on p. 3)

skills that meshed, and it was John's enthusiasm and humor that made the whole affair endurable, and possible.

#### BILL NELSON DONATED HIS CREW



## 2. BUILDING THE OBSERVATORY

John left permanent mementos of his stay with us all, such as the parks, the library, and a variety of buildings including homes.

However, the BPAA observatory was unique; he designed and then actively oversaw every single bit of its construction. Those who put in countless weekends helping him, George, Bill, Jim, Jack, Tom, and all the rest, know that the project could not have been done without him, and that he made the work productive, on schedule, and at a ridiculously low cost. This, all while having fun at the same time. What resulted is nearly unique, an astronomic facility that is always available for meetings, workshops, star parties and classes, and can be used by other astronomical associations as well.

He gave up more than his body weight in blood, sweat and tea (Constant Comment, naturally) over every bucket of mortar, every slab of sheet rock, and every ton of debris cleared away for its construction. As a result, he interred himself in it; it is his mausoleum, and so we don't have to build another in his memory.

The building had previously housed a huge inductor, which had to be firmly mounted in a position raised about 4 feet. This required a lump of concrete, about 5 ft wide x 4 ft high x 10 ft long, to be removed to make the building usable. First attempts with electric jackhammers produced a series of minor scratches. Pneumatic jackhammers produced more concrete dust and an estimated completion date of about 2050. A professional demolition firm in Seattle said, "Drill 40 holes 20 ft deep, where we tell you, pay us \$2000, and we will reduce the mound to rubble." Our bank balance at that time was \$200. John came through: "Hold a drawing, sell tickets. Have a party. The winners get to push the plunger for the two shots." It was a sellout, despite a downpour. We all had a wonderful time and we ended up not only with a pile of rubble, but both more money in the bank, and more members.

Electric power for the observatory came from an extension cord to the bathhouse at the soccer playing fields. Every time mothers plugged in coffee makers there, we were without power. After some urging, I got Puget Energy to donate \$8000 worth of transformer and cable, plus installation, *if* we would dig the ditch for burying the cable. That was a 280 ft ditch, 3 ft deep, through hard pan. Trust John: he got volunteers to do the job. It's handy to know volunteers who also have backhoes!

The observatory is, essentially, a concrete shell, with a two-story wooden structure inside. The framing for structure was too much for a collection of amateurs to handle. So John contacted Bill Nelson, building contractor, whose crew had little to do over the Christmas holiday period. They did the job, Bill charged us regular billing for the job, then donated it back to us as a contribution. Not only that, but several of his crew joined the BPAA! Then the "Construction Battalion" took over and finished the job of flooring, rockwall, insulation, wiring, plumbing, paneling, and installing the spiral staircase. Everything John touched increased our membership.

One wonderful time we had together involved the dome and the Day Road Association. We approached them for a donation toward the Dome construction, and they allowed us ten minutes at their annual brown bag lunch meeting. In those ten minutes, we showed the model and the drawings and pitched the data. They then criticized the budget, doubled it, and raised the money then and there. Then we were kicked out to the street, with the model, the drawings and a fat check in hand.



John Rudolph, Mac Gardiner and Susan Goodwin

(Cont. on p. 4)

Later, they put on an (illegal) wine-infested buffet party at the observatory to celebrate the completion of the dome. Never has there been a solicitation so much fun, and so cost effective!

Jim Llewellyn contributed the boat construction high bay area of his plant for preassembly of the dome, where the structure was fabricated, assembled and disassembled for installation on the observatory. What followed was the most dramatic and photogenic period of the construction. John looks good on a sky hook, maneuvering weird structures into place, and we ended up with darned impressive pictures, and still more members. (See photo, p.9)

The building looks rock solid but, to the telescope, it isn't. It vibrates and sways, and responds to anyone walking on it to the extent that astrophotography is spoiled. As a result, a pedestal, 4 ft square was built to couple the telescope directly to the foundation, 24 ft below. It has to support the full telescope structure, not sway or vibrate, and not touch the observatory structure at any point above the foundation. The answer was a "chimney" of concrete block and reinforced steel, filled with gravel, topped off with a *Time Capsule* container with memorabilia for future astronomers. Trust John to add that final touch!

### 3. BUILDING AND INSTALLING THE TELESCOPE

Building the telescope, along with the machinery for doing so, was Ed Ritchie's turf, but the telescope system involved all of us. The dome viewing slot has to rotate in exact synch with the telescope; and the viewing ladder and platform, attached to the dome, must rotate as well. It rotates on Earth Azimuth coordinates while the telescope rotates on Equatorial coordinates, so an angular conversion is required. Visitors enter the dome while the dome is oriented in one direction, and they might leave when the dome is oriented in another. This means that we have to deal with visitors (among them astronomers) who might become disoriented. We serve the public, and safety is a significant consideration. The telescope system concept calls for remote operation and direction, and possible autonomous operation. All this means that the dome, the building, and the telescope are all linked. John and his work crew started this task as neophytes; they ended up as experts. The system is a tribute to the energy and skills of the Construction Battalion, led by John.

### 4. SPECIAL EVENTS

We thank John for always egging us on to further efforts on celebrations, special events and anniversaries. July 4th is an opportunity for us to "show the flag," and he supplied the float with the Intensely Vigorous Revolutionary Volunteer Dixieland Band to help us show off our presence and affiliation with the Bainbridge Foundation. There can be no better support than that.

Astronomy Day is celebrated all over the USA and perhaps the world. John thinks up and produces those elements that make the affair of interest, pleasure and learning to the public. A notable example is the "Solar Walk," a 1 1/4-mile scale model of the solar system, involving also scale models of the Sun and the planets, mounted with short descriptions on viewing pedestals on the perimeter walk around Battle Point Park, spaced at appropriately scaled distances. The pedestals are left in place for walkers to enjoy the descriptions all year; their dogs are ecstatic about the pedestals. (See photo, p.8)

Even before the start of construction, John used the observatory building as a primitive solar viewing platform. The huge RF conductor entry window was blocked, except for a circular hole in the center, providing a huge pinhole camera obscura to observe the Sun's analemma and the two solstices (where the meridian Sun is at highest or lowest elevation). The winter solstice got special treatment, with portholes in partitions and the telescope pedestal that allow 10 minutes of viewing to be projected on the far wall of the meeting room once a year.



### 5. PERSONAL PROJECTS

John Rudolph could dig more meaning out of scratches on some old rocks than the Anasazi themselves had in mind when they scratched them. He overwhelmingly convinced us that our own beaches, the Wallula Gap, Susanville, and the Celtic regions contain markings which are astronomical in nature and purpose. His is a triumph of energetic intellectual and physical satisfaction of curiosity over common sense and just earning a living. Paul Middents will bear witness to the effort that John put himself (and his susceptible friends) to the often daunting task of affirming that it is not only possible, but probable that early humans used certain sites for astronomical purposes, (Cont. on p. 5)

even if it meant men hauling dimension lumber into the mountains to build an adequate theodolite viewing platform. (See article p. 6)

He also wanted to build a planetarium, and to build a special parabolic dome for it. I plan to help finish the job, but I'm not John to build that dome.

#### 6. HONORS AND AWARDS

The international archaeoastronomic community has seen fit to honor John's studies, and he has appeared at conventions all over the western world to give presentations and exchange views in this rather specialized field. We kidded him about it, but we honored him for it as well, and provided moral support. He always "flew the BPAA flag," and BPAA is known all over the world in that arena.

On May 18, 2000, John was awarded the Bainbridge Island Chamber of Commerce "Business Person of the Year" award, and, at his acceptance ceremony, issued signed exemptions from having to attend his funeral. Well, attendance may have not been mandatory, but the voluntary attendance made up the largest crowd ever seen in that part of Bainbridge. Half of the people on this island claim John as a special, personal friend, for good reasons. To tunes such as "Amazing Grace" and "When the Saints Come Marching In," as played by the Intensely Vigorous Revolutionary Volunteer Dixieland Band, we shuffled in step, cried a little, then laughed a lot to remember our unforgettable John Rudolph.



### THE MAN WITH STARS IN HIS EYES

By Sally Metcalf

Living with John Rudolph was a constant adventure. I never knew what to expect next. Saturday mornings were wonderful because I got to enjoy John's projects first hand. My favorite memory was looking out the upstairs window one sunny day to see John down in the driveway happily laboring over a steaming cauldron of molten, glistening lead!

I hurried out to get a closer look. The hiss of the propane burner heating the cauldron was deafening, and

the smell of burning wood stung my nostrils. John had nailed my muffin tins to a piece of plywood he'd laid out across his sawhorses. I watched in awe as he cheerfully ladled scoops of bubbling lead from the heavily scarred, three-inch-thick cauldron and poured them into the waiting tins. The plywood smoldered, and the muffin tins as such were gone.



John was whistling!

In case you're wondering, this was the origin of the weights that counterbalance the BPAA Observatory telescope---after much head scratching, weighing, and filing them down by John, of course. I stumbled over forgotten globs of lead left in the most curious places for months afterward. There still may be one under the passenger seat in John's old Subaru wagon.

John's jacket was never the same. The liquid lead he'd sloshed on himself seared a splattered array of holes across the chest. When I pointed them out to him he wiggled his eyebrows in that impish way of his. "Oh, Oh!" he said, and grinned. But there were those telltale stars in his eyes, the sparkle that meant he was utterly delighted with a task that anyone else would call hard work!

That was my John! He loved the observatory, loved the BPAA community of star gazers, and loved all it took to bring that community and that facility into being.

John's latest pet dream for BPAA was a planetarium. He and an enthusiastic committee researched the subject extensively and found that a highly adaptable projector and viewing apparatus can be purchased for a modest sum and made available to members and to local schools. Presently, the committee's Planetarium Report is being reviewed and finalized, which is timely because donations for the planetarium have already exceeded \$5,000! (Cont. on p. 6)

John couldn't finish this project. And, Oh, how he wanted to! It is the only adventurous thing I've ever known him not to have finished. So I've decided to work on it for him. Clearly having stars in one's eyes is infectious. John's enthusiasm certainly was. If you are interested in helping or donating to the project, your call would be most welcome: (206) 842-6719.

## MY RECOLLECTIONS

### By Eric Cederwall

My earliest recollections of John Rudolph date back to when I was just starting out in my first accounting job in a firm located next to his, in the east part of Winslow. I was a bit uncertain how I fit into the small business community that was Bainbridge then. As John would pass my office on his way downtown, he would most often be whistling. John was always enthusiastic, and his usually cheerful presence and general nonchalance would brighten a sometimes dreary day. I looked forward to encounters with him.

We were both members of the Bainbridge Island Kiwanis Club, and I worked with John on the first expansion of the Bainbridge Public Library building in the late 1970's; he was the architect (having been the architect for the original building), and I was on the Library Board of Trustees. John's "style" then was essentially the same. He had a way of drawing people into a project. He truly was a person of ideas. He helped keep a wide array of people working on behalf of various aspects of the expansion (sound familiar?).

I continued contacts with John in the 80's. He let me keep my day sailboat tied to the shore at his place at Gowen place in inner Eagle Harbor. His home was a place to sometimes discuss the issues of the day, and meet others of his wide-ranging friends who included those of any age-level. John no doubt was mentor to many younger people.

John left his professional stamp on various projects on the Island. He was designer and architect for the downtown Post Office, and had a long involvement in projects with the Bainbridge Island Park District, in particular with Battle Point Park, which was a massive undertaking compared to other public projects going on on the Island. I think John was instrumental in convincing the U.S. Army that bringing various and very large earth moving equipment to clear and reshape the old radio tower facility at very low cost to Bainbridge would be a valuable "training opportunity" not to be missed by the Engineer Corps. That was John. I think from these antecedents it's easier to understand whence came the qualities that helped create, a few years later, an observatory out of a hulk of a building.

Part of John's genius was to take old things and give them new life. His home and the observatory are such

examples (we would do well to continue in this way). The other of course was his way of bringing together people in a good cause to do more than could otherwise be accomplished. We would honor his legacy by doing as he did.

## DUSTY AND LEFTY MEET THE PETRO-GLYPH GROUPIES

By Paul Middents

Mac Gardiner approached me several years ago with an "interesting proposition." He had just taken my Astronomy 101 course at Olympic College and he thought I might be interested in working with one of his colleagues in the newly formed Battle Point Astronomical Association. This fellow had an ardent interest in archeoastronomy—something I had alluded to in the course just completed. Mac introduced me to John Rudolph and John pulled me immediately into his web.

And so it was that, in the summer of 1996, I accompanied John Rudolph into the high desert of Northern California where we spent four great days sleeping under the stars at night and chasing petroglyphs by day. I think we must have resembled Dusty and Lefty, Garrison Keillor's feckless cowboy pair—though John spared me any musical renditions. We resisted the lure of nearby Susanville and the dance hall floozies I knew lay in wait to tempt innocent pilgrims like us.

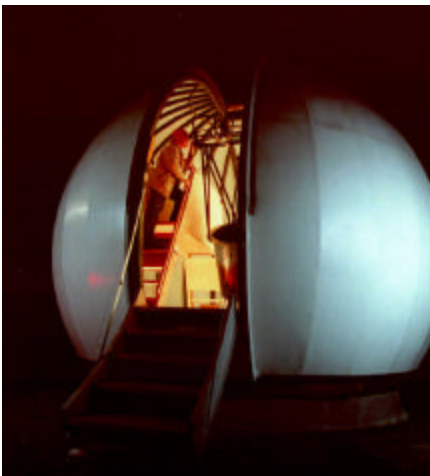
We flew into Reno, rented an SUV, drove to Susanville, CA, stocked up on plywood and 2 x 4's, checked in with the local Bureau of Land Management folks, and headed about 40 miles up into the high country to Willow Creek. The petroglyph site is on a high plateau with Willow Creek meandering through a canyon about 300 feet below.

I was immediately impressed by John's practical construction ability as he whipped together platforms above the rock crevice caves where the glyphs were located. From these platforms John would take precise altitude and azimuth measurements with a transit of points I was marking down below on the glyphs. In this way we hoped to reproduce the glyphs in three dimensional space relative to the crevices which might form Sun or Moon light daggers at or near the solstices. At night we stared at the stars as John enthralled me with wide ranging theories and visions, relating constellations and asterisms to the glyphs that surrounded the caves and on almost every rock surface. Sex, religion and politics were never mentioned—at least I don't think politics ever came up.

About midway through our third day I was startled to hear voices above me talking to John. I was at my usual position wedged back in the far corner of a rock crevice cave about 15 feet below John who was on his platform with the transit. Soon I was being introduced as a disembodied voice from the crypt to a group of about five petroglyph enthusiasts from southern (Cont. on p. 7)

California. One of the groupies knew John by reputation and so they were thoroughly impressed. John was holding an informal seminar up top while I cooled my heels in the cave. (It was a real trick getting into this place—one usually accompanied by some skin loss on entry and exit so I wasn't anxious to leave and then return.) Soon though I was peering around a large rock at a very pretty young woman named Kathy Bishop who had worked her way into the outer part of the cave and was video taping our efforts. She seemed completely unperturbed by my "Dusty-like aura" which had grown to pretty formidable proportions after three days with John in the bush untouched by soap or razor. I continued the seminar in the cave and Kathy recorded the whole thing for posterity.

Over the next several months John and I collaborated on the analysis and interpretation of our efforts. He incorporated this work in numerous papers, presentations and conferences. John was endlessly curious about the theory behind the celestial motions which created the phenomena we were trying to associate with the ancient sites. John attended all the courses I offered through the BPAA over the years, and this past year's effort on archeoastronomy was inspired by John's intense desire to know and understand. His persistent questions and searching mind pushed me to learn, explore, expand and communicate. I shall always value his friendship, intellectual companionship and inspiration. I miss him.



John in the Dome, eye to the Ritchie Telescope

"I remember when we were moving the 'orange peel' panels that made the skin of the dome from Jim Llewellyn's boat shop to the Observatory back in 1997. I rode steadying the panels in the back of the truck, where my other job was to wield a wooden stick that would lift each of the electric wires across the street high enough that we could clear them. I also tried to beguile the drivers who had collected behind our very deliberate progress up Miller Road." – **Jack Fleming**

## EXTRATERRESTRIAL LIFE

By **Bill O'Neill**

John was one of the most stimulating people I've ever met, often drawing attention to opinions out of the main stream that I might never have learned about. A case in point occurred when I gave a talk to the observatory group a few years ago about something I considered to be related to the field of astrobiology that I've become interested in. John had been reading a recent book (*Mars: The Living Planet*, published by Frog Ltd., Berkeley, 1997), and he asked my opinion of the experiments carried out when the Viking probes landed on Mars in 1976. I could say nothing more than I understood the tests showed no evidence of life, the "official" interpretation of the results publicized 20 years before.

John had a marvelous ability to recall what he'd read or heard on a wide range of topics, and he knowledgeably described the controversy which had followed those missions to Mars, especially the persistence of the principal investigator, Dr. Gilbert Levin, who had designed the so-called Labeled Release experiment and felt that NASA was reluctant to admit it had produced "signs-of-life." I was amazed at John's knowledge about what (I learned subsequently) had become known as the infamous "Third Experiment." The book's author, Barry DiGregorio, presented Levin as a rejected individualist battling the bureaucracy of NASA – just the kind of character John was drawn to – and he gave Levin the opportunity to write an independent chapter detailing his viewpoint and what he considered corroborating evidence leading to Levin's conclusion that "more likely than not, the [Labeled Release experiment] discovered life on Mars." Dr. Levin had made that statement at a 1986 National Academy of Sciences conference on the 10<sup>th</sup> anniversary of the Viking landings and was roundly criticized by many of his colleagues for disagreeing with the party line interpretation of the results.

My point is not to weigh in on this particular controversy, and you'll be hard pressed to find an unbiased review of the Viking topic. What amazes me is that John knew much more about the subject than I did and that he was actively inquiring into it, without the "benefit or burden" of specialized training in the chemistry and microbiology that it involved. John had that omnivorous intellectual appetite of a renaissance man. He was totally uninhibited about wading into areas, ranging from archeoastronomy – where John could discern astronomical significance from graffiti carved on rocks that apparently were indecipherable by most others – to cosmologic phenomena that make most eyes glaze over, as well as affairs much closer and (Cont. on p. 8)

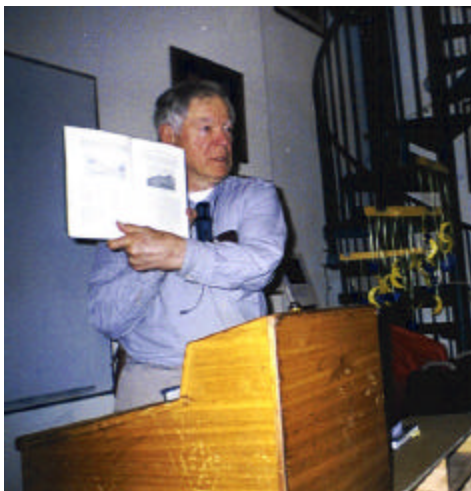
consequential to the folks around him. I shall sorely miss the provocative nudges that almost every contact with John provided, and the endearing wink and smile that accompanied them. I'm not likely to find his like among the otherwise brilliant specialists I more frequently deal with, and I'll always treasure the privilege of having known the one and only John Rudolph.

**PHOTOGRAPHS**

John and Ed Ritchie looking through the barrel of the telescope in Ed's shop.



John and two guests on the Solar Walk in the Park



Above: John's Archeoastronomy Lecture



John's cartoon of Prof. Middents





John guiding, moments before the Ritchie Telescope was placed in the Dome



Working with Jim Vaughan on rebuilding the Ritchie Secondary

John contemplating the next step



**“He was the sweetest person one hundred percent of the time. He was a star in Ed’s and my sky.”**  
**Gena Ritchie**

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