



A moon rock, on display at the Griffith Observatory.

■ Kara Knack, Friends of the Observatory official, recounts her trip to Houston to bring back a real live moon rock for display at the Griffith Observatory.

Story by Kara Knack, originally published in The Observer; Photos courtesy Kara Knack and the Friends of the Observatory

FROM THE JOURNAL OF KARA KNACK, TUESDAY, FEB. 9, 1971:

"This day I will never forget...47 seconds after 6 a.m. ...earthquake! Hollywood plunged into darkness as sparks flew from transformers ... Shocks through most of the day. Scores dead. Late in the afternoon we went to Griffith Observatory and bought a copy of the day's seismograph (10 cents). After dinner we watched the total eclipse of the moon talking about the earthquake and Apollo 14's safe and successful return from the same moon early this morning."

ince my first visit to Griffith Observatory in 1950, it has been my touchstone for dependable and authentic information. During the last two decades participating in the renovation and expansion of Griffith Observatory, I've had more than my share of privileged experiences. There have been trips to Germany and Japan seeking the best star projector, visits to planetariums and science museums around the world, while meeting and speaking with great minds of astronomy and public institutions. Being a small part of this splendid project has been a rare and elevating encounter as well as a deep responsibility to the people who are Friends of the Observatory (FOTO). It seemed impossible to expect that a more wonderful honor, full of tingling excitement, would be ahead of me.

One day in September, FOTO's Executive Director, Camille Lombardo, asked me if I were interested in transporting the Griffith Observatory's Moon Rock from Houston. Without hesitation, or a look at my airline miles account, I said yes!

In 1989, Griffith Observatory's newly hired Patrick So had been chosen to pick up a lunar sample from NASA Aames in Northern California. It was arriving as a temporary loan for the 20th anniversary celebration of landing on the moon. He tightly held the wooden box with the piece of the moon inside an acrylic encapsulating case on the flight from San Jose keenly aware of the privilege of such a rare event.

Right and below: On behalf of NASA, Louis Parker transfers the 62nd Indefinite Loan Lunar Sample into the custody of "Lunar Transporter" Kara Knack in the company of a Saturn V rocket on display at the Johnson



Kara Knack, Friends of the Observatory official, and Mark Pine, Deputy Director, Griffith Observatory, explain the



Mark Pine, Deputy Director of the Griffith Observatory, and Kara Knack, Friends of the Observatory official, look over the moon rock on display at the Griffith Observatory



>> WEDNESDAY OCT. 10, 2006

9:30 a.m.: Griffith Observatory talk/Malibu Prudential Office

11 a.m.: Airport. Continental Airlines to Houston

My mission to the Johnson Space Center to pick up Griffith Observatory's moon rock begins! In-flight movie: "Poseidon"?

At the George Bush International airport [in Houston], I knew I was in Texas. Sweet, humid afternoon air swirled around me as the Hertz lady asked, "What can I do for you, honey?"

In a GPS-loaded car, I was gently directed out in an easterly, southeastern curve upon the beltway circumventing Houston. The air bore traces of a sultry afternoon rain and the Texas savannah glowed golden in the afternoon light. As the feminine GPS voice guided me south, the setting sun on my right peeked through huge billowy clouds, brilliantly illuminating the heavy clouds to my left. A golden glow danced around the clouds and sky, ebbing and flowing until a raindrop on the windshield promised, then delivered, a double rainbow arching high up into the sky, drawing my spirit up with it.

The easy GPS-led-drive gave me a chance to appreciate the bushy South Texas scrub. The glorious rainbow dipped in and out of dark grey clouds bubbling up into brilliant coppery gold of the sun's rays sliding down to the horizon. Peachy pink sprawled across fat clouds spattered across a darkening blue background of

sky. The intense beauty welcomed me. On the side of the road, pan-hard puddle ponds reflected the ersatz soil of this region. The beltway curved and flowed, circumventing all of Houston. Over a long expanse of elevated bridge I got a good look at the darkening sky as it closed down the day. From the crest, the bridge view opened up to hundreds of acres of what looked like twinkle lights on steel erectorset Christmas trees but in reality were lighted outlines of oil refineries. It explained the less than \$2 a gallon gasoline advertised on the side of the road.

Darkness crept quickly over everything. I felt happy, my mission before me a profound joy. I laughed to myself remembering the toll takers cheerful greetings, "Darlin', I love that star you're wearing," said one. "Here's your change, sweetie," said another.

It was a then little shocking to hear the 24year-old desk clerk respond to my blurted out confession of my Houston mission.

"I saw a very compelling show on TV," she began. "It was a very convincing argument that all of the moon landings were fabricated and fictional creations done in a studio." As she sincerely pondered the possibility, I realized how important it is for people to see lunar samples and hear the stories of humans still alive who walked lunar terrain. Internally, I wondered at the huge reality gap. Here in Houston, only two miles away from the Johnson Space Center, a young girl doubted true and real science, unaware her critical thinking might have flawed information.

The Rock and Me



A TSA Officer at Houston's George Bush International Airport confirms the identity of the lunar sample prior to Kara Knack's boarding of her flight to Los Angeles.



Kara Knack, Friends of the Observatory official, in the Apollo-era Mission Control Room of the Johnson Space Center, Houston.



The modern Mission Control Room of the Johnson Space Center, Houston.

In my room, writing in my journal, the mirror reflected the rising gibbous moon, the same moon where Apollo astronauts collected material for us to ponder a bigger reality than being earthbound.

Throughout most of my life I have collected rocks as if they could hold memories of time and place. As a child, a great day at the beach, cooking fresh crabs, gathering driftwood and sitting around a crackling blaze, would end with me shoving a rock into my pocket. The box under my bed grew to two boxes holding such collections. Those boxes were returned to nature before our move from Washington State to California. Stones continued to intrigue me. On the beach at Angel Island a teenaged boyfriend wrote love words in the sand with a rock that went into my purse. Climbing a mountain in Guatemala, stopped on a very steep slope by my inability to breathe, I gasped for air and noticed a sensational tiny red stone that is in my house today. From around the world small and not so small rocks remind me of moving around the world.

OCT 12. HOUSTON

Dense fog pressed against the window, shrouding everything with humid mist. The sun was near rising but it was hard to tell. With inroom coffee in hand I stood on the miniscule balcony watching the warming air suck up fog as the sun began to cook the atmosphere. It was dynamic and surprisingly quick as the mist disappeared, pulled towards the sea. At breakfast, over and over in my head, the words: moon rock. It seemed unreal to think I was going to be carrying one back to Los Angeles in no time.

At the Johnson Space Center, I was thrilled and excited driving into the gate to building 110 to meet Jeannie Aquino, my guide for a mini-tour. The original buildings of the JSC Campus bear the same stamp as military buildings everywhere but stepping into the historic Mission Control Room reminds one of true and heroic missions. From this room all Apollo missions were controlled. At each desk station: a dial telephone and a pneumatic tube message delivery system, extinct tools as reminders of accelerating progress.

The Space Shuttle control room hummed busy in the midst of a Shuttle simulation for a December launch, and the International Space Station Mission Control room reminded me that people live in space above us all, at all times.

Louis Parker's colorful office is a small, highly decorated cubicle. He greeted me with the same enthusiasm as had Jeannie. While they chatted some pleasantries with each other, my eyes ignored the countless posters, photos, awards and ephemera in the office and fastened firmly on the triangular glass case on Louis's desk. In it, the moon rock for Griffith Observatory.

My breath was taken away by its size, larger than the three other moon rocks I've seen. I was amazed by the color variations and the slight

sparkle on the surface. This piece of the moon was col Apollo 14 astronauts and is #6 nite loan samples. I felt prid tiful lunar sample was g Observatory. At the large "tempor a Saturn V rocket and in awe of the huge roc had blasted all of the Ar moon. There, an officia

Parker then said the most important other thing for me to do was to return the \$10 black gym bag carrier he supplied to hold the sample in its case and its surrounding foam core board. Louis laughed when he said that there is no way to ascertain a value for moon rocks - scant more than 1,000 pounds of returned moon rocks exist on earth - but the \$10 bag was a ficult requisition to achieve. I assured would return it immediately.

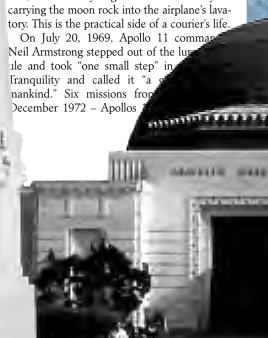
I left Johnson Space Center feeling exhiled enough to blindly make a wrong turn correction I momentarily headed west. above the horizon, a huge, cream-colore ing gibbous moon that I had seen ris night beamed brightly at me. Reach and patting my precious cargo, I was as the great and honored privilege I am l

s and Space

"Mother Moon sends her regards, l The Airport Security section was no larly busy, a welcome factor as I ask hief of Security to request a hand hin my sight. The official paper ule and took "one small step" in ied me as a "courier of precio Tranquility and called it "a the property of the

(NASA) carrying Lunar Sample (Moon Rock) number 14321-1804, identified as being inorganic and possessing no danger to animal or plant life." The letter was cordial, respectful and sought to protect the rock at all times.

Word began to circulate amongst the security people that a moon rock was being transported. A few not on duty gathered around to catch a glimpse as I removed the foam core covering exposing the vacuum sealed glass case holding the lunar sample. One picture was taken with a cell phone and I received permission to take one photo of the security check. It was almost reverential. In the faces of the men and women looking at the moon rock I saw pure awe and wonderful appreciation. At the gate with plenty of time, I decided to do as my mother always said, "Go before you go." I couldn't see myself carrying the moon rock into the airplane's lavatory. This is the practical side of a courier's life On July 20, 1969, Apollo 11 comman





1971, to Feb. 9, 1971. Apollo 14 was the eighth Apollo mission and the third lunar landing. The crew-members were Capt. Alan Bartlett Shepard, Jr. (USN), commander; Maj. Stuart Allen Roosa (USAF), command module pilot; and Commander Edgar Dean Mitchell (USN), lunar module pilot.

Selected as one of the original astronauts in 1959, Shepard became the first American in space when he piloted the initial Mercury suborbital mission and at 47 years old, he would become the oldest person to walk on the moon. Roosa and Mitchell were making their first space flights. Roosa was 37 and Mitchell was 40.

Launch of Apollo 14 was achieved at 4:03:02 p.m. EST on Sunday, Jan. 31, 1971. The spacecraft landed in the Fra Mauro highlands at 04:18:13 a.m. EST on Feb. 5, at the

intended landing site for Apollo 13. For the mission, the total time spent outside the lunar module

eled was more than 13,100 feet (4 km), and the collected samples totaled 93.21 pounds (42.28 4:05:00 a.m. EST Feb. 9.

ples were released on April 4. After tests showed no evidence of lunar microorganisms at the three sites explored the quarantine procedures on future missions were discontinued.

On approach to landing in Los Angeles,

kg; official total in kilograms as determined by the Lunar Receiving Laboratory in Houston). The farthest point traveled from the lunar module was 4,770 feet. Splashdown of the command module was in the Pacific Ocean at The crew remained in quarantine until Feb. 27, and the command module and lunar samquite weary. Their guitar cases were labeled Phantom Planet. One fellow was complaining how difficult it was to remember some of the chord changes during the concert. "How about a tattoo?" I offered, "You know, chords on the wrist."

The guys laughed.

"Say," I asked, "are you guys Phantom Planet?" "Yeah," they seemed pleased I asked.

I told them I hadn't recognized them but saw

OCT. 12: LOS ANGELES

er, was carrying something wonderful to Griffith Observatory, something belonging to every American. I had already decided to show it to them when they had spoken with appreciation of the Observatory.

Opening the lunar sample case, I watched as jaded rockers became like ten-yearold children filled with won-

der and curiosity. They took some pictures with their cell phones and

one of the fellows asked. "You aren't robbing me, are you?" I asked as the van turned into the car lot. The guys laughed and thanked me effusively for being able to see the Moon Rock.

Getting into my car, I called the Observatory, letting staff know I was on my way. I traveled surface streets, savoring the end of my rarefied mission.

On the way, I patted the precious cargo on the seat beside me and wondered at my own predilection for stones and rocks. There was not one cell within me that would have wanted to own this lunar sample. The entire trip had convinced me that everyone should be able to appreciate the wonderful achievement of human curiosity. To see very careful Security Officers filled with excitement and pride, to experience the veneer of rock musicians dissolve into electric invigoration, these are the tests of the beauty and wonder of the fabulous wonder of exploration.

Arriving at Griffith Observatory, I grabbed a stranger to take a picture of me delivering Lunar Sample #14321-1804. A piece of the moon had come to a new home to remind us of a wonderful trip we all took in 1971.

It's safe now at Griffith Observatory, in the corner pocket of the Lunar Exhibit on the Edge of Space, for all to see.

