

## Saturday, Sept 7 – Train to Machu Picchu

This morning we are heading to Machu Picchu. We move out of our casita at K'uychi Rumi early in the morning, and have breakfast. Our main bags are packed for transport to Cusco and we are ready to make do with our back packs and a small carry-on bag, about the size of Ann's purse. After breakfast Doris picks us up at 7:30, to make an 8:00 train from Ollantaytambo to Machu Picchu. When Doris arrives we say goodbye to Carlos . . . and 2 of his 4 dogs (I don't think the dogs noticed we were leaving). Plenty of time as it turns out, despite what the schedule says the train doesn't actually leave until 9:30. Seems this is the way it is with PeruRail, and Doris confirms that this sort of thing is not all that rare. Even though British Rail operates PeruRail under contract, the trains don't run like they do in England. But all the staff wear nicely tailored uniforms.



Fortunately there is a decent waiting room at the station, complete with an Indian playing the traditional flute (*El Condor Pasa*, what else). Uncertain exactly when our train would arrive from Cusco we get some bottled drinks and relax.

So we wait, and wait some more, and FINALLY the train arrives and we can board. The train to Machu

Picchu is a narrow gauge and each passenger is allowed only one small bags. We get on with our one bag and a full backpack each and no one says anything so we're O.K. The cars are normal train-car width and remarkably roomy. The seats are comfortable and well-spaced with tables between facing pairs. We find our assigned seats and settle in. The train isn't crowded, perhaps

½ full. All very nice!



We never travel faster than 20-25 miles per hour since the track is narrow and the cars are wide, they don't want any uncomfortable (or possibly dangerous) "wobble" as the train runs. It will be even slower than that when we return to Cusco tomorrow, since we are then going uphill.

It is about 1½ hours by train from Ollantaytambo to Aguas Calientes, the town that serves as gateway to Machu Picchu, and a drop in elevation from around 10,000 feet to around 7,000. We progress through changing biomes of high elevation grassland and forest to Amazon basin cloud forest. We sit comfortably and watch the scenery roll past. As we go lower and lower it gets greener and greener. At the lower elevation, bromeliads grace the rocks and trees, many in bloom.



Much of the trip is in the deep Urubamba River Canyon, whose walls crowd closer around. The tracks run along the Urubamba River (there's no room to do it any other way for most of the train ride). Aguas Calientes and Machu Picchu are actually in the

upper parts of the Amazon basin cloud forest. Deep in the canyon it's green everywhere; the rainfall here is 75 - 82 inches a year.



The scenery is spectacular, high mountains surrounding the canyon. We see Veronica, the second highest peak in the Peruvian Andes with her skirts of glaciers. Most of the way the river is solid rapids.

We catch quick glimpses of torrent ducks that are able to swim in the rapid water, bright orange feet and beaks. Their beaks are flexible to enable them to dig deep into cracks and crevasses in the rocks. The males are black-and-white striped and the females are an orange-brown. Both attractive birds.





above: A female (left) and male (right) Torrent Duck .  
left: The Torrent Duck's favorite habitat.

The Urubamba River is one of the uppermost headwaters of the Amazon. The Urubamba flows north into the Ucayali River then continues north almost to the Ecuador border. At the confluence of the Ucayali and the Marañón Rivers the Amazon begins and turns towards the east and Brazil. And now that we are deep in the canyon and at about 7,000 feet elevation, it is green, green, green.



As we approach, but still several miles out, you see hillside terraces marking huge farming areas at our level (about 7,000 feet), then at about 9,000 feet and at about 10-11,000 feet. The different levels were to provide a variety of crops appropriate to each level. These served the people living in Machu Picchu, as there was no room to grow enough food at Machu Picchu itself.

When we arrive in Aguas Calientes the station and the town are relatively crowded. But it turns out the town is automobile-free. The only vehicles are the busses that take people up to Machu Picchu (and the train in and out). There is a good-sized “market” area that you must walk through on the way to town from the station. Stall after stall of “tourist junk”, nothing even remotely tempting.

It’s a short walk to the hotel to check in. We just drop our bags and head out. Machu Picchu awaits! We head for the bus pick-up. Doris has already reserved our tickets, so she puts us in the bus line and goes to pick them up. There is a sizeable line for the busses and we anticipate a wait, but everything is well-organized and it’s less than ten minutes before we’re on our bus.



The ride up takes about 15-20 minutes, with an elevation gain of about 1,000 feet to 8,000 feet at Machu Picchu. It's a thrill-a-minute experience. It is a narrow dirt road with busses going in both directions, one sharp switch-back after another. Only a few spots where two busses can pass each other, on one side cliff straight up and on the other cliff straight down. The views as we make the climb are spectacular. Wish we could capture it, but taking photos through the dirty bus windows during the bumpy ride didn't work too well. We try a couple regardless.



The road is named *Hiram Bingham Highway* in honor of the “discoverer” (in 1911) of the site, but it's nothing we would call a “highway”. Bingham was only the discoverer for North American archaeology, the Peruvians had long known of the existence of Machu Picchu and regarded it as unimportant. And when the Inca abandoned the site it was well-known they took all the valuable artifacts; so even looters had no use for the place and the only current residents anywhere nearby were a few farmers and prospectors.



When we arrive we find a busy, crowded loading area for the busses and a small shop. No big “gift shop gauntlet” to run, so we're through the entrance and into the site quickly. Once inside it is not as crowded and we are at the beginning of the trails around the site momentarily. Even the short walk from the gate provides some spectacular views of the Urubamba River Canyon that girdles the site on 3 sides.





Our first impression is like someone who sees the Grand Canyon for the first time. You've seen all the pictures, you think you know what you're going to see, but the reality of it is so much MORE. All the pictures don't begin to convey the sense of past grandeur, the location and surroundings . . . everything about it.



Machu Picchu is situated in the saddle between the two mountains, Machu Picchu and Huayna Picchu. Being down in the cloud forest of the Amazon basin, the climate must have seemed like a paradise for the inhabitants who usually lived higher, colder and drier.

Of course we must be tourists and have Doris take our picture overlooking the site.





We start along the upper trail, the one with the best overall view of the site. Lots of climbing but we handle it fine. This trail leads out to the “Inca Bridge” but we won’t go that far today, just to where we start down into the site. Doris has a lot of information for us and we stop often to look, listen and sometimes take pictures.

We walk out along a path through the agricultural terraces and then back to the main part of the site. Before we start that walk back, we stop in a nice, shady spot (there’s no shade on the ruins site itself) and Doris gives us a good briefing on the history of the area and of Machu Picchu itself. She’s really the perfect guide. We discovered the other day what an outstanding bird guide she is, and now we discover her amazing knowledge of Peruvian history too.



Most people think of Machu Picchu as ancient, and in our terms perhaps it is. But it was built at the end of the Inca Empire and did not last long as a place of habitation. It was begun in the mid-15<sup>th</sup> century by Inca Pachacuti and abandoned by the mid-16<sup>th</sup>. It was built as a royal retreat and inhabited by the Inca and his court, the priests and their servants. The entire population is estimated to have been no more than 400-450 people. It is so intact because the Spanish never found it, and the Inca and his people abandoned it to go deeper into hiding from them. There was no “treasure” found when it was discovered so the assumption is that since the Inca made a planned move it was all taken along. There were 139 mummies found when it was discovered, presumably the remains of the last caretakers of the place.

Machu Picchu was considered by earlier archaeologists and historians to be a “secret” or hidden place, but as more was uncovered it became clear that it was at a hub of Inca trails, at least 6 of them heading in all directions. People also refer to “the” Inca trail, but there were many of them with more being discovered and restored every day. They connected Machu Picchu with the Atlantic coast, Bolivia, Chile and Argentina to the south, the Amazon basin to the east and extended north into Ecuador. The Inca had a real highway system of trails, over 25,000 miles of them from Ecuador down through central Chile and to the east deep into the Amazon basin.



Then we're off along the terraces back to the main ruins. There are several llamas grazing on the terraces below us on the way. Not wild, about 5-6 of them are kept up here for grass and weed control. One in particular seems to



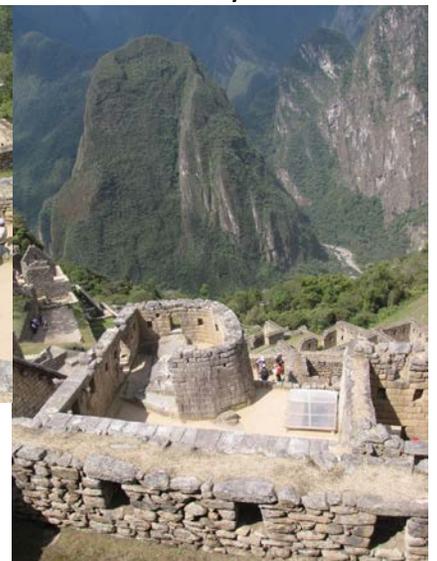
enjoy posing for photos. The site looks fairly "well-groomed" so they are doing the job well.

Also found an interesting flower peeking out of the face of a terrace wall just below us. Doris said it was a sort of begonia, but not like any begonia we've ever seen.



And as we were starting up this morning, just beyond the entrance, we saw an unusual green-flowered bromeliad, a good-sized one about 4 feet across with a bloom stalk of about 4-5 feet. But the color of the flower was the most unique thing. We've never seen any kind of flower that's green!

We come to the old city wall (nothing left standing, only foundations remain) and that is where the major building ruins begin. Doris leads us through the ruins doing a very thorough "show-and-tell" of everything. Her route starts above the "Temple of the Sun". This structure is so named because its curved wall resembles the much larger Coricancha Temple of the Sun in Cusco. A major part of the interior is occupied by a sacred rock, a sort of altar stone.



There is a groove in this rock that lines up perfectly with the sun coming through a small eastern window on June 21, the winter solstice. Some consider this indicates the building was a solar observatory, but there are no other indications of this, so its actual purpose is unknown. The stonework of the temple's construction is among the finest in Machu Picchu, and some of the finest in the entire Inca Empire

These strange carvings in the rock on the bottom of the temple are thought to be "water mirrors for observing the sky". Tourist guides sometimes refer to them as the "Eyes of Pachamama" (Mother Earth). No one really knows what their purpose may have been.



Underneath the temple is a natural cave that was supplemented with high-quality stone work and carvings. This was called the Royal Mausoleum by Bingham because of its location beneath the temple and for the niches in the walls. Niches of this size and type are where mummies are often kept. Although no mummies were found here, it is assumed they were taken away when the Inca vacated the site for a "safer" retreat from the Spanish.



Running right behind the Temple of the Sun area on its own little terrace is a major water supply canal that flows through a network of canals and channels to supply the 16 fountains within Machu Picchu. Four of these fountains are right in the area of the temple, showing the importance of the priest and his retainers. Fully  $\frac{1}{4}$  of the water supply in Machu Picchu is reserved for the Temple's use and is the first of the water coming into the city (presumably the "purest" water). The main canal is about 6 inches wide and 4-5 inches deep. That doesn't seem like much but with a good, strong flow it apparently was adequate to provide all of the necessary temple and residential water. There are separate irrigation systems for the agricultural terraces.



We then walked towards the temple sector, above us and around the area west of the eastern urban sector. There are several sections here consisting mainly of dwellings. There are many, many large stones lying around. Doris says it was a quarry area, where the stones were rough-worked before being moved to their final location where they were finished and used. There are many huge stones here, mostly un-worked but others in various stages of chipping and finishing.



As we look back up, we see the llamas at their groundskeeper work. Ugh, we realize that we will have to walk back up there soon.



The sheer size of the central plaza is surprising. There is so much more space than would have been needed for the number of residents.



None of the temples in this sector (the Temple of the Sun and Temple of the Condor are in other sectors) were ever finished. There are still huge stones lying in a few places that were in transit to the Temples they were to be used in building. The so-called Principal Temple is cracked

along the rear wall, a rare example of flawed Inca foundation preparation. The east wall had settled, pulling the rear wall apart but not causing it to fall. This happened during construction, perhaps triggered by an earthquake. It most certainly would have been torn down and reconstructed from the deepest foundations on up, but all work here was discontinued before this could be done.



The niches in the rear wall are much higher up on the wall than in other temples. There are grooves in the altar stone that are believed to be for



draining off the blood from animal sacrifices.

The Temple of the Three Windows has, not surprisingly, three large windows; much larger than those in Inca buildings here and in other locations. The windows overlook the large central plaza, a wonderful view. There are actually five window openings, but the outer two have been closed off to form niches. Niches are present in almost every Inca building but especially the temples and religious buildings (sacristies, priests' dwellings, etc.). Their specific purpose is not known, but it is assumed that they were used to display important or ritual objects and mummies.



On the open side of the temple area is an almost sheer drop down to the Urubamba River that loops around three sides of Machu Picchu. Of course all of these temple buildings show the fine stonework so characteristic of important buildings. This is in contrast to the stonework in other areas of the city. It also was clearly carefully done and well-laid, the rough stones would have made for much faster construction. But at all the sites around Peru, both types have made it through many earthquakes.



The contrasting styles of stonework. *Below left: A temple wall, below right: a "common" wall.*



We climb up a small mound of solid rock to see the Intihuatana stone. It is a monolithic construction, including the access steps, cut and polished from one huge natural rock. The Intihuatana Stone at Machu Picchu is one of many ritual stones in South America. These stones are arranged to point directly at the sun during the winter solstice. The name Intihuatana is derived from the Quechua language: *inti* means "sun", and *wata-* is the verb root "to tie, hitch up", hence *inti watana* is literally an instrument or place to "tie up the sun", often expressed in English as "The Hitching Post of the Sun". At midday

on 11 November and 30 January the sun stands almost above the pillar, casting no shadow at all. On 21 June the stone is casting the longest shadow on its southern side and on 21 December a much shorter one on its northern side. Some researchers believe that it was built as an astronomic clock or calendar by the Incas, but many say it is not precise enough, so the real purpose remains a mystery.





We double back along the path and go down to see the Temple of the Condor. The Condor is the largest bird in the western hemisphere and can have a body up to 4 feet long and wings spanning 10-12 feet. It was revered by the Inca, and still is today by most Peruvians. The temple has a carved stone image of a Condor's body and head, including the neck ruff; made from a different type of stone, much lighter colored. The natural rock forming the sides and top of the temple look like the

upswept wings of a Condor gliding overhead or swooping down on some creature. It's a fascinating illusion they've created with this temple.

It appears that a portion of the temple was used for preparing or "consecrating" mummies. This would make sense in that the Condor takes deceased animals "up to the



sky", so perhaps the Inca hoped that the Condor would guide the spirit of the deceased there. There are two caves on the lower level of this temple with views out over the Urubamba valley.



We then go out to the northernmost end of the main site to the Sacred Rock. It sits out there all by itself away from the constructions that are central to Machu Picchu. The centerpiece is a 25 foot long flattened rock that is rough-cut to mimic the shape of Yanatin mountain behind it across the valley. There is an open area in front of it where the rock can be viewed with Yanatin in the background. The purpose is not known, but cutting rocks outlined to represent the shapes of surrounding mountains were common and are seen on many Inca sites. It's beginning to cloud up and we wonder if we'll be rained on before

On either side of this open area to the north and the south is a wayrona. These are 3-sided structures with a bench running along the back wall. And just in time, those benches are a welcome sight for us. Doris isn't tired though, and we get the idea that she could probably climb and walk all day without becoming tired. The wayronas have the typical high-peaked roof seen on most structures here and were thatched to provide shelter from the rain. We've been talking about how dry it has been, but Machu Picchu is so low in elevation it is in the Amazon cloud forest, so there is much more rain here than at other places we've been. There is a deep groove or channel carved into the rock behind the south wayrona that collects water runoff from its roof and channels it into the water supply system. Just another example of the superb water management systems used by the Inca.

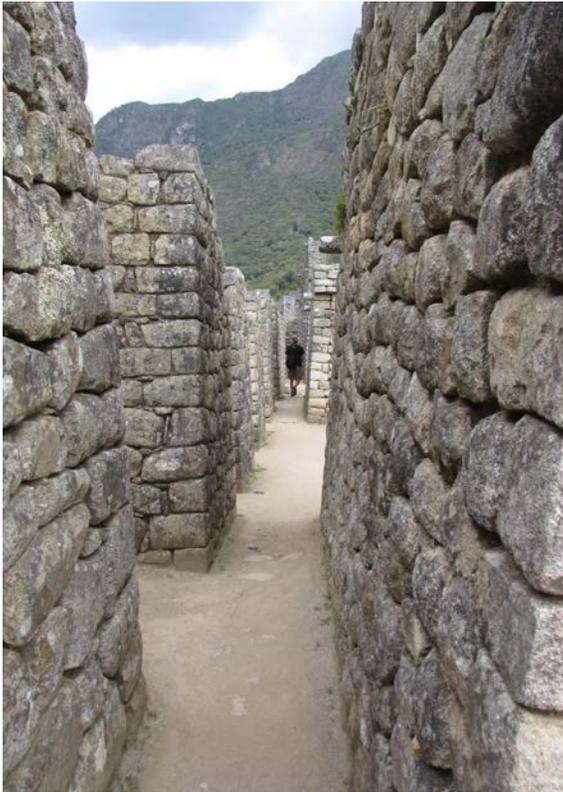


We walk back through another urban sector. The difference in the buildings here from the temples and royal structures is striking. The stone-work of the walls is precise and obviously carefully constructed, but of rough stones, not the smoothly finished, tightly joined stone of the more important buildings.



The views, even from most of the general residential section, are still spectacular to us. We wonder if the people who lived and worked here appreciated them or even noticed them.





Pathways between them are narrow, even for a walkway, but then the Inca had no vehicles of any kind. The llamas they domesticated were too small and light to carry or pull anything except small loads. For all of their sophistication in so many areas, the Inca never utilized the wheel. There have been small artifacts thought to be toys that had wheels, but no apparent use of the wheel for more “serious” purposes.



As we are exploring one of the buildings we get a very brief glimpse of a Vizcacha. They are closely related to

chinchillas, but look similar to rabbits, apart from their longer, squirrel-like tails. There are several species and all are usually gray or brown in color, with a long bushy tail and long ears, and they’re about the size of a Cottontail Rabbit. They live in large colonies separated into individual family units, like an apartment complex. They’re common and numerous but very shy and secretive, and seldom seen. Ed wishes we had gotten a better look and maybe even a picture, but we only saw the one, scurrying for his hole in the rocks. This picture is from internet, just so you can see what they look like.

We are at the far, far northern end of the site and the entrance where we depart is at the far, far southern end, beyond the main site through the agricultural terraces. At one point we see a kite soaring overhead. This is not the toy that a person might fly but a type of bird, a large predator like a hawk or eagle. We suppose it’s looking for one of the vizcacha here that might be careless enough to become its meal.



We have noticed that the buildings here all have steep gable roofs. We see short posts protruding from the gable ends like the wooden vigas in our southwestern U.S. buildings, but these are stone and don’t extend clear across the roof's open span.

Doris explains that these projections are to tie down the roofs on the buildings to hold them against the strong winds that sometimes blow here. Now we see them on a roofed building and it is clear how they work.



It's a long walk back and it's been a long day. We've been on our feet for hours now so we take it easy and make stops along the way. Finally we are back at the bus loading area, and are able to board with only a 10-15 minute wait. It's all very organized and today was a relatively un-crowded day, especially for a Saturday. We are more than ready to get back to the hotel for a quick clean-up and then some dinner. Doris brought along a tasty picnic lunch for us, but by now we're starved again. That lunch seemed like such a long time ago!

So . . . how comfortable were we on our visit to Machu Picchu? Well, we got hot in the daytime, from the high altitude sun. This is NOT a place to come to without sunscreen. And it's dusty, dusty, dusty we are both covered from head to toe. Ann thought she was getting a tan until she washed her face. But there is NO trash! However, no toilets either, the only restroom is just outside the entrance so you had better go before you enter and sweat everything out while you're there. The trails and steps conveniently connect everything, but like the stairs in many ancient places, one step is 6 inches and the next is 18 inches; no two the same, over and over again. And we go up and down, up and down. But Doris leads at a leisurely pace and though Ann usually trails in our trio, we make it through everything without any real problems or discomfort. Ann thinks of her friend, Trish Simmons who hiked the Inca Trail just the previous week. She had this for four days and one day at 14,500 feet, and Ann can't wait to compare notes with her once we're back home.

We both did a lot of work at the gym before we left the states, working on core and legs (lots and lots of step-ups) and it has paid off. We have not even had one sore muscle. But the walking sticks we brought with us made all the difference. Ann uses her two like ski poles and Ed has just one longer one. They were invaluable at Isla Taquile, at Ollantaytambo, and now here. We know they will be welcome on so many parts of this trip and we're VERY glad we brought them along.

We arrive back in Aguas Calientes about 4:30 pm, tired and hungry. We get off a bit before the main bus stop and walk down to town along the river. Of course Doris spots a couple of new bird species for us. She just can't help herself, she's an "instinctive" birder and finds them without even thinking about it. We find out later in our trip just how amazingly good she is when she actually TRIES.

Along the way back to our hotel, Casa Andina, we encounter a parade. A sizable handful of people are carrying a couple of Saints' effigies along the main street and railroad tracks (one and the same). The parade is led and followed by Saqras (Devils) who represent temptation. They tease and mingle with the crowd, and pose for pictures with bystanders ("bywalkers" in our case).



And since we left for Machu Picchu in the morning there has been a structural casualty here. This morning we observed the somewhat "casual" construction methods on some of the sheds and storage buildings.



This evening some sort of small building up on the hill beside the tracks has collapsed and spilled out onto the walkway. We just cross the street and we're

"home" in another minute. Back at the hotel the very first thing we do is wash our very dirty hands and faces. We've agreed to meet in front of the hotel at 5:30 then head out for a welcome dinner. The quick wash-up is all we have time for. The shower will have to wait until after dinner, we're absolutely starving.

We walk through town to Indio Feliz, a restaurant Doris knows on an alley off a secondary street. It's the sort of place you'd never just "happen across", you have to know exactly where it is.



Ann's first pisco sour, a great drink, sort of a funky undertaste which is pleasing. As they are made with pisco, a fortified wine, they do pack a punch. Ed orders a Limonada, a lemonade so filled with Mint

that it looks green. Since we have both lemons and fresh mint in Tucson we agree to re-create it at home. And our dinner is great . . . and huge. Ann has a big melon salad, followed by fresh pasta, followed by fruit salad. Ed has soup, quinoa soup of course, pasta with cheese, tomatoes, mushrooms, pesto and oil (delicious!) with apple tart and ice cream for dessert. All very yummy, and after our day's exertions ever so welcome.



Then back to our hotel, Casa Andina, for our long awaited shower. Only to discover it is the shower from hell. It sprays everywhere you don't want it to and the water temperature proves impossible to control . . . hot, cold, hot, cold, etc. The uncertainty makes for brief, but still welcome showers, complete with much jumping, yelping and cursing. Ann had not planned on washing her shirt, but has to because of the heat and dust. Fortunately it is a quick-dry fabric so it is dry before morning. Ed realizes he is down to his last clean T-shirt and they are not the quick-dry sort, so we will need to make a morning stop at a gift shop to pick up a couple of "Tourist Tee's" to make do. It will still be a couple of days until we get to Cusco where we can do our laundry. And so to bed, with the river roaring below us. We fall asleep almost immediately and hear neither the river nor the night trains running directly in front of the hotel.