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End of Expedition No. 2

For Transcript, To return to Chapter 6, close this document.

Preliminaries:

After a quiet flight from Stillwater to Tulsa, Oklahoma, and then to New York's Idlewild Airport (now JFK), Dr. Jack Harlan finally took off on a very crowded transatlantic flight to London 1 ½ hours late because of mechanical problems, but nevertheless arrived Heathrow Airport on Sunday, April 3, 1960. He wrote the following paragraph at the beginning of his travel journal:

"AGRICULTURAL PERSPECTIVES - being a brief account of and meditations upon a voyage to Kurdistan, Luristan, Bakhtiaria, Khouzestan and other portions of the Parsee Empire and to Azerbaijan, Uzbekistan, Afghanistan, the disputed Pushtoonistan and the western wing of Pakistan including Gilgit, Chitial, Swat, Dir and the hither reaches of the Hunza and also to the Punjab, Kashmir, Uttar Pradesh, the Valleys of Kangra and Kulu, Rajasthan, Gujarat, Maharashtra and adjacent portions of Hindustan, as well as Aden, Djibouti and the provinces of Harar, Kaffa, Shoa, Bagemeder, Tigre and others of the Ancient Royal Kingdom and Empire of Ethiopia; the whole in search of Agricultural Perspectives and a surcease from committee meetings, television, and world news events, in all ten glorious months of complete escape from the old rat race, April 1, 1960 to Feb 2, 1961, by Jack R. Harlan, the escapee, Professor of Agronomy, Oklahoma State University and Principal Geneticist Forage and Range Division, Agricultural Research Service, United States Department of Agriculture, Stillwater, Oklahoma, to which and the gracious and generous assistance of the Oriental Institute of the University of Chicago, the John Simon Guggenheim Memorial Foundation, the New Crops Branch of the United States Department of Agriculture and the Oklahoma-Ethiopian Contract is gratefully acknowledged."

Thus, we have a quick overview of the travels of one Jack Rodney Harlan, then residing in Stillwater, Oklahoma, having once, some 12 years previously, made one similar plant exploration and that to Turkey, and now returning after 10 months and one day submits his report.

It was a cold and drizzly morning in February, 1961 and Jack Harlan's wife and children were anxious to see him and wondering what was taking him so long. A number of events, some national and world-wide in importance and others more private to the Harlan family, had taken place since he had last walked out of that front door at 1104 West Airport Rd. Stillwater, Oklahoma on April 1, 1960.

Following is a summary report which we shall call the Narrative. A companion report is composed of a transcript of Jack Harlan's own notes in which he recorded daily, and sometimes hourly, observation of the events which transpired around him, as he resolutely ventured into several countries in Europe, then Iran, then the USSR, then Afghanistan, Pakistan and India and finally Ethiopia, picking up several more on the way back home. The second document we have called the Transcript. The two documents are linked together with Hyperlinks and also endowed with Hyperlinks to Google Maps and other informational Web sites to aid the reader.

Travel to Europe: April 1 – 2 (2 days)

Jack Harlan began his second, his longest and one of the most interesting of his seventeen international plant explorations on April 1, 1960. He had no particular superstitions about "April Fool's Day", but

perhaps he should have. The flight from Tulsa to Washington DC was a half hour late taking off, and the second leg from Washington to New York and then London was an hour and a half late on the runway in New York because of some mechanical problems. Harlan was sitting on the aisle seat of the first row of seats in a completely filled plane of 6 people across, when a ventilator in the men's room fell off and then, while they were fixing that, he overheard – since he was sitting so close to the cockpit – that a fuel pump had gone out. Well, someone of lesser faith might have gotten off the airplane, but Jack Harlan, knowing that he needed to stay on schedule, set out anyway. The fuel pump was fixed and the flight was uneventful after that and he landed in London on April 3, 1960. To read Transcript click (Trans)

Europe: April 3-8, 1960 (5 days)

Harlan's first stop on most of his expeditions is the Kew in London. The Kew Herbarium houses the world's most extensive collection of pressed plant specimens and the associated Royal Botanical Gardens at Kew contains the world's most extensive collection of living plants of all types in the world. In this his first visit to the Kew, Harlan met Mr. Clayton, Mr. Hubbard, Mr. Bor and a Hans, who was to join in on the expedition later. Dr Loftus Bor was an expert on Indian grasses and also Assistant Director of the Royal Botanical Gardens. Later that night Harlan wrote in his journal: "(Bor) Very robust & delightful man. Mr. Clayton is the grass man & they showed me where the Bothriochloa were. Took some hasty notes. In aft. spent 2 ½ hours in the gardens." The next day, April 5 he spent about an hour and a half at the Kew Gardens and then hiked 9 ½ miles out to the airport. That evening there was lots of eating and drinking; then the following day it was off to Copenhagen and "next to Rome with a sandwich snack & highball on the way. Then to Athens and more of the same. The total: 1 sherry, 2 sauterne, 5 claret, 1 martini, 2 champagne, 2 cointreau, 1 cognac, 1 scotch." All this on the way to Iran. To read Transcript click (Trans)

Iran April: 9-June 21, 1960 (74 days) (Return to Trans.) (Return to Chapter 6)

Jack Harlan finally set foot on the soil of his first targeted country on April 9, 1960. He was not there to collect seeds, really, but to visit an archeological site operated by the famous Robert Braidwood, of the Chicago Oriental Institute. Harlan's task at the archaeological site was to identify various plant remains which the workers uncovered in the excavation. It was a mild spring day in Tehran, Iran. The year, 1960, (19 years before the Islamic Revolution in Iran) was an unusual time of peace both in Iran, Europe and America. The western countries were on good terms with the Shah of Iran and Harlan was able to move freely about the country. His first moves were hesitant, however, as he was not really sure what to expect or where to go for help, but soon he got into the routine of pushing people to get results. He went out to Karadi College, about 20 km from Tehran, but gave up when there was no one there to help him and focused on getting his transportation to the USSR (his next stop) lined up.

After hiking around Tehran and meeting several people, getting his bearings and purchasing his bus ticket to the site, Harlan set out on April 12 on a 14-hour bus ride, with the TTB Bus Company, to Braidwood's archeological site near Kermanshah Valley. At this site Dr. Braidwood was investigating the "Neolithic Revolution." He had asked Harlan to come to the site to identify plant remains. In his Nov.

18, 1959 article "Newsletter from Iran" in the Oriental Institute Newsletter describing how they had set up shop to study the Kermanshah valley, he said: "Jack Harlan will check the wild grains in the spring." Braidwood wrote up his findings at the Kermanshah valley in The Iranian Prehistoric Project. Harlan will be at the site through April 21, 8 working days, where he will work at the microscope identifying scraps of plant epidermis. When he first got to the excavation site, he knew only a minimal amount about plant epidermis. He was expecting to identify seeds, but all the excavators were turning up at the site were very small fragments of plant epidermis. He studied up on this and spent many hours at the microscope and soon he did what he will do many times in the years to come: and that is to become an expert on whatever he needed to be an expert on at the time. He saw very few seeds or pollen grains in those 8 days; however, he spent time driving around and exploring the area and the towns nearby, as well as the local bazaars. He was not able to identify very many seed but, in 1961, Bob Braidwood wrote that in continuing on to Afghanistan, Pakistan and India "...Harlan passed on to us that as far as his inthe-field impression that, as far as the ecological situation in Asia is concerned, the locale for the effective domestication of the wheat-barley cereals does not lie east of Kurdistan."² Braidwood, himself, did not quite find what he was looking for at the Kermanshah site, but he was on the right track. Other archaeologists dug into the sands of the Zargos Mountain foothills and eventually much evidence for the so-called Neolithic Revolution in the so-called Fertile Crescent has been uncovered. So, Harlan's first efforts in archaeology bore some modest fruits. To read his daily journal while in Iran click Iran <u>Trans</u>. After leaving the excavation site he toured some of the incredible sites of Iran. See <u>Map</u> for his route.

Dr. Harlan did some seed collecting in Iran. When he collected enough to ship home he would pack them up and mail them back. Sometimes he sent them to the Plant Introduction Center in Beltsville, Maryland, but not always. We can track the collections that went to Beltsville on-line today. Below is a record of this collection obtained from the website: Full Text of Plant Inventory: Plant Material Introduced by Jack Harlan³:

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267070. Cynodon dactylon (L.) Pers. Poaceae.
Bermudagrass.
From Iran. Plants collected by J. R. Harlan, University of Oklahoma, Stillwater, Oklahoma. Received June 21, 1960.
Col. No. 72. Dry slope in plowed field 78 km. north of Kermanshah, road to Sanandaj. Collected June 11, 1960.
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These seed collections were sent to quarantine at Beltsville, MD and, after decontamination, were sent on to Stillwater so that Bob Ahring and others could grow them out. The first number under the Beltsville record is the PI (Plant Introduction) Number. In this case it is PI267070.

Other collections were sent directly to OSU. These specimens were recorded in the A-Book. One from this same trip was A-8774: Bothriochloa ischaemum, collected by J. R. Harlan 84 km, N.

¹ http://oi.uchicago.edu/pdf/Archeological Newsletters.pdf.

² The Iranian Prehistoric Project, March 24, 1961, page 2.

³ Source: https://archive.org/stream/plantinventory168170agri/plantinventory168170agri djvu.txt.

Kermanshah – road to Sarandaj. B. ischaemum was a forage grass, which became known as Yellow Bluestem. It has several varieties. Dr. Harlan collected several of these and brought them back to OSU, apparently without going through the Plant Introduction Center and its protocol, gave it an A number, and gave them to Bob Ahring to grow out. Mr. Ahring has provided this author with copies of several sheets from the A-Books to which he has access. On the same sheet (page 56) where the above accession was logged, there was another variety of the same species which he found in Afghanistan on the same expedition. It was given number A-8793. This one has a PI number of "PI269364, collected in Afghanistan No. 377, irrigated field in canyon – 8.0 km N. of Ka (probably Kabul.)"

According to Bob Ahring, several of the Old World Bluestems were blended together into a grass seed which was called "Plains Bluestem". The grasses appeared similar but Plains Bluestem was a mix of different varieties of Old World Bluestem. Some of the varieties were more drought resistant and others were more disease resistant. The idea was that if one variety got into trouble at a particular location, other varieties could help the pasture flourish. Chet Dewald selected out of the Plains Bluestem mix two outstanding varieties: "WW Iron Master" and "WW Spar". Iron Master was useful because it did well in the Iron-poor soils of the plains around western Oklahoma, Kansas and Texas.

The following is copied from a Johnson Enterprises website, a commercial seed company⁴:

Commercially Available Cultivars Of Old World Bluestems

'Plains' Bluestem (released in 1972) a composite of 30 similar looking accessions collected from six different countries. The composite of so many different accessions enables it to be widely adapted across the Southern Great Plains.

'WW-Spar' (released in 1981) an original component of 'Plains'. It has its origin in Pakistan and is more drought tolerant than the other lines making up 'Plains'.

'WW-Ironmaster' (released in 1987) was specifically selected based on its performance on iron-deficient soils typical of high pH soils. It is adapted to soil pHs of 7.4 to 8.4 but is less productive than 'WW-Spar' and 'Plains'.

'Caucasian' Bluestem (introduced in 1929) has a higher degree of winter tolerance than the other cultivars and produces better tonnage under favorable conditions. 'Caucasian' does not perform as well under drought conditions..

'WW-B.Dahl' (jointly released in 1994 by Texas Tech, TAEX, and the Soil Conservation Service in 1994) the most recent release of Old World Bluestems and originated in India. It is typically more productive, has broader leaves, slightly more palatable,, and matures later than other cultivars. Cold tolerance is not as good as the other cultivars and best adapted to southern Oklahoma and Texas.

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⁴ Source: http://www.jeinc.com/old-world-bluestem.

One very great benefit that Dr. Harlan received at the archaeological excavation in Iran was the use of an automobile. The following is quoted from his last book, *The Living Fields*, speaking of is expeditions in general and the 1960 Iranian visit in particular:

Almost all of my field work has been done on a shoestring budget. I could not buy a jeep and have real control over my transportation. I could seldom afford to rent a jeep. In general, I was in a "beggar" position. Part of my homework was, of course, to learn about agricultural research stations and institutions that might be of help, and I am enormously grateful for the help I have received.

My interests in the archaeological aspects of crop evolution and plant domestication led to invitations to do field work in Iran, Turkey and Jordan. In the Iranian Prehistoric Project of 1960, three German DKV jeeps were driven out from Germany. I was allowed to take one of them eastward for my work in Afghanistan, Pakistan and India, on the understanding that when I had finished with it I would sell it and turn the proceeds over to the Oriental Institute of the University of Chicago.

I wanted to take an excursion through the central Asian region of the USSR, Bokhara, Samarkand, Tashkent, etc. So, friends drove the jeep to Kabul where we had a rendezvous. The jeep was enormously valuable as I drove it myself and could stop at any time to collect. A good collection of some valuable material was obtained in both Afghanistan and Pakistan, but I was unable to drive it into India because the international carnet had expired. The Indians demanded an import duty in cash, equivalent to the cost of a new jeep. It was left in storage in Lahore, Pakistan, and I went on to collect in India for three months, then to Ethiopia for another two months and finally back to my home base at Oklahoma State University. The jeep was still in store in Lahore. I was willing to sell it to myself and write a check for \$1000 to the Oriental Institute, but I found that since I had left Oklahoma state ten months previous, the University had developed a contract with Pakistan for technical assistance and was in desperate need of transportation. So I walked across the campus and sold the jeep in Lahore and sent the proceeds to Chicago.

One other crucial task to master while in Iran was to secure transportation to the USSR, his next stop. Following is an entry that Harlan made in his journal on Saturday June 18, 1960 which demonstrated how he was learning to get things done, even in Iran:

Red tape finally moved. Got USSR visa after the wait, went to Persia Tourist, then to security — got border permit, then to police & got exit Stamp, then to bank to cash Farzaneh's checks. I was mad the whole time which may be why things moved a little better. Finally paid off the leach & walked back to hotel still fuming. Bought car seat on the way. After lunch worked up the bill & paid it. Between the expedition & myself it comes to about \$1800! Wrote Bob about it, took packages to ICA, packed etc. Sore throat & taking pills. Reza came in evening & we took him out to dinner. We should get off in good season tomorrow.

By "we" he means himself along with Les and Liz Picard, a young British couple who seemed to be just bumming around the world looking for adventure, with plenty of money to spend and who had somehow attached themselves to Dr. Harlan. Harlan first mentions Les in his journal while in Iran on June 1. Les became kind of free helper to Harlan and after awhile did some of his own collecting. Les liked to swim and would, from to time, absent himself from the activities surrounding Dr. Jack Harlan and go for a swim at a pool he found. His wife, Liz, often traveled with him and the two of them accompanied Harlan on quite a bit of his expedition, doing various things for him and simply enjoying the adventure of it all. In the above quote: "So friends drove the jeep to Kabul where we had a rendezvous"; the friends were Les and Liz Picard, who drove the jeep from Bandar Pahlavi, Iran through Chalus, Iran, on the south coast of the Caspian Sea to Kabul, Afghanistan, about 2,825 km. They had a good time and got free use of a German jeep to help them in their adventure through Iran, Afghanistan and Pakistan; Jack got his jeep delivered and everything was great. See Map.

On his last night in Iran before sailing to the USSR we see Harlan camping out on the beach, probably just to save a little money and, hay, he enjoyed it. Although he does not say so in his notes, it appears that Les & Liz had joined him on the beach. We shall now look at this last full day in Iran: in his June 19 diary entry we see him making his last road trip in Iran, northward over the spectacular Alborz Mountains to the south shore of the Caspian Sea:

Had breakfast & packed in a leisurely manner & left hotel at 9:00. Stopped & bought the German knife & went to P. O. to unload mail. Out of town by 10:00. Drove up Karaj Canyon very steep & rugged – wonderful scenery. Had lunch at resort hotel – very expensive, but good. From top of pass went down a very impressive grade. Things too young to collect. Wild lotus abundant, *Vicia variabilis*, *Lathyrus*, *tuberosus*, *Vicia* spp. Many others. *Prunus* also. But only got an Iris. Tried for the big leaved maple down low, but still too green. Got a cypress of some sort. Finally, came out at <u>Chalus</u>, had a grand dinner, did some sightseeing & camped on beach.

To read Transcript click Trans. View final leg of Iranian trip here.

USSR: June 22-July 1, 1960 (10 days): (<u>Trans</u>.)

On Wednesday, June 22, 1960, Dr. Jack R. Harlan drove up the coastline of the Caspian Sea to Bandar Pahlavi, bought a ticket, boarded a boat and sailed 170 nautical miles to Baku, Azerbaijan on the west coast of the Caspian, in the USSR. See Voyage. (Note this is actually an airplane flight path, but the boat trip, while not available on Google Maps, would be pretty similar. (You may have to click at the tip of the dropdown menu and click the airplane symbol.) Les and Liz drove the jeep back into Iran. Les will drive it into Afghanistan for a rendezvous with Dr. Harlan. Upon arrival at Baku, Harlan made his way to the Intourist Hotel. The hotel was better than most he had endured in Iran. It had a hot shower, of which he soon partook. Afterward there was dinner. The food was good, but expensive and he wondered how the common people of Azerbaijan could manage if things were this expensive everywhere.

The next day he went to the Intourist⁵ office to secure tickets for his journey in the USSR. He wanted to go to Kransnovodsk on the east coast of the Caspian, but they had an airplane ticket made out for Ashkhabad, about 500 km farther inland. To see a map of these two cities (note that Kransnovodsk is now called Turkmenbashy) click Map. There was some discussion on this but as far as he could see there was no logic at all. He just didn't seem to have much choice. On Friday, June 24, Harlan went to the local Botanical Gardens in Baku and had a very good visit with the Director, a woman who had attended the 1959 Botanical Congress in Montreal, which he had also attended and had made a presentation which she remembered. They seemed to be doing some good work at the Botanical Gardens. After lunch he went to the airport and flew to Tashkent⁶ on a Russian built <u>Ilyushin II-18</u>, a four motor turbo-prop airplane, much like American planes of equivalent size; however, they did not have a PA system on the II-18 and dinner was just a sandwich. See Map for flight path.

Harlan toured Tashkent the next day, attending a concert and ballet and on June 26th he drove into the Uzbek countryside where he discussed with some farmers the growing of cotton, did a little shopping, attended a review of a chorus and orchestra and met a five year old boy who could beat everybody in chess. In the evening it was on to Samarkand, Uzbekistan, where, the next day, he visited some members of the faculty of the Uzbek State University. For Harlan's review of some of their work see Expedition No 2 Transcript, June 27. (Return). Afterwards he visited the "tomb of Timur, tomb of female line of Timur & then to museum. After dinner, hiked through parks & place of culture and rest but no rest."

The boy may have been Georgy Tadzhikhanovich Agzamov (September 6, 1954, <u>Tashkent</u> – August 27, 1986, <u>Sevastopol</u>) a Soviet <u>chess Grandmaster</u>. He became an <u>International Master</u> in 1982 and was awarded the Grandmaster title in 1984. In 1966, at the age of 12, he was the chess champion of his town of <u>Almalyk</u> (Olmaliq) in the province of Tashkent of central <u>Uzbekistan</u>. He would have been 5, going on 6 in July, 1960. (HVH2)

On Tuesday, June 28 Harlan flew to the ancient city of <u>Bokhara.</u>, <u>Uzbekistan</u>, where there were a number of <u>impressive Islamic sites</u>. His experience with a tour guide proved to be dull, however. The next day he went back to Tashkent and this time, with a new interpreter and new hotel room was able to meet with Dr. Pycahob, the Director of the <u>Botanical Gardens of the Academy of Sciences</u>, <u>Uzbek CCR</u>, who took him around and showed him the gardens "which was started in 1951 and isn't finished enough to be opened to the public yet." To read his technical description click (<u>TR</u>). He had a good visit. Spent most of evening with an American – Fisher of Ford Foundation, a Frenchman who travels for a cloth company of Lyons, and a Swiss. That evening he wrote: "Stomach on the rampage, probably from Bokhara and some bad beer."

June 30 Thu: "Slept late & went without breakfast for my stomach's sake." After getting up he met with someone from Intourist and changed his reservations to Kabul to give him two more days in Tashkent.

⁵ Intourist is the official travel agency of the USSR.

⁶ Tashkent is the capital of Uzbekistan. The ticket was changed by Intourist to Tashkent because Intourist had no office in Ashkhabad.

He experimented with a novel way of treating his upset stomach. "When the stomach is not feeling well try a luncheon of caviar, bread, cheese, cucumber salad, and white wine."

On July 1 he wrote in his diary: "Three months gone & seven to go. A lot has happened & a lot more to come. At noon went to Horticulture Institute."

July 2 Harlan flew to Kabul, the capital of Afghanistan "over the Hindu Kush a beautiful flight." See flight path.

Afghanistan: July 2-26, 1960 (25 days) (<u>Trans</u>) Please view the following photos of Afghanistan 1940's – 60's before reading the Narrative, below: https://www.theatlantic.com/photo/2013/07/afghanistan-in-the-1950s-and-60s/100544/.

When Jack Harlan arrived in Kabul, Afghanistan on July 2, 1960 he made the rounds to the US Embassy, got a hotel room, and met with various people in charge of the US agricultural programs in Afghanistan. He then met up with Les and Liz and retrieved the jeep from them. This is a pretty amazing episode. Jack Harlan had been loaned a German Jeep by Bob Braidwood in Iran. He then lent it to Les and Liz Picard, whom he really did not know very well, in northern Iran for them to drive it to Kabul, Afghanistan some 1256 miles distance in 10 days, where he would meet them and receive the jeep for his use. Les and Liz Picard are not on anyone's payroll, but they are just doing this for the adventure of it; and they were very glad to get to use the jeep for 10 days at no cost, except the gas. Anyway, the next day Harlan spent some time preparing seeds he had collected in Iran for shipping back to the US. The following day was the fourth of July and he attended a big picnic of some 400 people held at the US Embassy, after a very nice visit at the home of Dr. McAnnelly of the Wyoming contract. The Wyoming Contract was an agreement between Afghanistan and the United States, through the University of Wyoming, to provide agricultural expertise to Afghanistan. To find out some of the history of US-Afghanistan relations prior to 1960 or so, visit a very fine web site Remembering the Past the Early Years of US-Afghan Relations. This web site mentions Wilbur V. Harlan, Jack's elder brother, who worked in Kabul teaching school, starting in 1938. This was his first job after school, and in fact, he dropped out of graduate school at the University of Minnesota to take the teaching job, which his father, Harry V. Harlan, had suggested he take. Bill Harlan never returned to live permanently in the United States until 1985. That's another interesting story. At any rate, in the afternoon of July 4, 1964, Jack Harlan went to the International Club for a few beers and in the "evening to Ambassador's reception & another big, but different, mob. Ate so many canapés we didn't need dinner, so to early bed." The next two days saw Harlan running around from Embassy to Consul, getting his paperwork straightened out, always with dinner and drinks afterword.

On July 8, after nearly a week in Kabul, he was ready to do what he came there to do: collect seeds. He drove to Paghman, some 15 miles to the northwest from Kabul and made some collections amongst the beautiful formal gardens (Paghman Gardens). The temperature was now quite hot, but the next day, July 9, he went out again and collected some wheat and barley seeds. His stomach was beginning to rage again. This time it was stomach cramps and he just didn't know if he was going to last the morning. Somehow he made it and found out that Les had done some collecting, himself, at the local bazaar and

then went swimming in the afternoon. When everyone returned from their activities they went to the museum and saw some very interesting exhibits. The <u>Kafiristan wood carvings</u> from the <u>Nuristan province of Afghanistan</u> particularly caught Jack's eye. The Kafiristan are a non-Muslim people, named after the Muslim word for non-believer, <u>Kafirs</u>, who live in the mountainous region to the northeast of Kabul. They excel in making intricate wood carvings of furniture and just fantastic art.

Les departed on the morning of July 10, leaving Jack and Liz to browse the local bazaar. They found string, earrings, had a bracelet made, bought a horse's nose bag for seeds & found the wild rhubarb they had been looking for. Returning to the hotel they saw Les' baggage still on the floor, meaning that he had not yet departed. Further, they found that Les had taken the jeep & gone to the ICA. "After some frustration Liz & I decided to follow it so we cleaned up (a fifth day in bazaar) & went out to club in taxi. Sure enough Les was there so we got him to buy us beer & sent him after the rhubarb. He returned shortly & said they would try to get roots but seeds would not be ready for 2 months. Had dinner at club & came home." Jack Harlan was usually a pretty gentle soul, but this time it seems that he and Liz were giving Les less that equitable treatment.

Later that day Harlan met <u>Josephine Powell</u>, an American who had lived for decades in a dollar-a-day room at the Hotel de Kabul in Kabul. In her fantastically unique life, she traveled with the nomads of Turkey, Afghanistan & Pakistan, <u>photographing</u> them and collecting a <u>huge trove of cultural items</u>. And he met, in the same day, <u>Louis Duprés</u> (Duprée), an American archaeologist, anthropologist and scholar of Afghanistan culture and history, who first moved to Afghanistan in 1949 and later became an expert on the history of the country; thus, another day in Kabul.

Over the next few days we see Jack sending Les off on some errand or another and then he and Liz are going on a collecting trip together or to the bazaar to do some shopping. In the evening it was drinks, dinner and discussion with Luis Duprés & Fred Matson at the Duprés' house, which was stuffed with gobs of Afghanistan artifacts. On July 14 Harlan, having had enough of all this wining and dining, fled by himself from Kabul past Ghazi and straight to Mukur (Moqor) 160 miles to the southwest from Kabul without stopping, except for a few collections, one hitch hiker and a flat tire, with which the hitch hiker was able to help him. He dropped the hitch hiker off at Moqor and then went on in the dark. He stopped at some quiet place and "camped off road, after dusk, so as not to be disturbed. Cooled 3 cans of beer with wet socks & ate a box of English biscuits. Beautiful night to camp out." The stars were brilliant in the clear desert sky and Harlan was satisfied that he handled himself well with Liz and now, for a time at any rate, they were gone and he could do what he came to do. What, if anything, happened back there in Kabul we shall never know. We do know, from his own diary, that Jack Harlan got out of Kabul fast and was glad to be gone from there.

When the sun rose over the barren landscape the next day, Harlan drove to Kandahar, picking up another hitch hiker along the way. He got a hotel room at Kandahar and there met a Capt. Joyce of Pan Am Airline, with whom he discussed the state of the world over drinks and dinner. On July 16 Harlan went to <u>Kajakai Dam</u>. This was his quest. He drove 300 miles to collect certain Bermuda grasses and there were none. The rain had not come that year and, therefore, there was no grass. Returning to

Kandahar he wanted to go to the circus but the circus had gone, too. "Had a couple of drinks with Simonson & a couple with Lockwood & Palmer & to bed early. Dull day; not too hot."

The next day was Monday, July 18 and Harlan went to visit the Laskar Gah project (Map). In an attempt to showcase the "American way of life" to the Afghanis a small American suburban subdivision had been constructed in the desert, complete with single-story brick houses on slab foundations, with electricity, gas, water and sewer services. It had everything, including neatly cut lawns and nice white concrete sidewalks. Several American families had been recruited to come out to the Afghan desert to live in this bubble. When Harlan visited Laskar Gah it was pretty disappointing. He wrote in his diary: "They have a real morale problem. 8 American families & 2 bachelors. Raw, new settlement – something like Sacaton was in the old days. (Sacaton, Arizona, where Jack's father, Harry V. Harlan, labored for many years on his barley plots and finally died in 1944.) Nice and peaceful, but does not stir ambition."

He was staying at the <u>ICA</u> headquarters in the area, but on the 19th he, in spite of persistent car problems, simply had to leave: "Got back to ICA, packed, paid bill, etc. Left at 5:00 pm. Drove to about 7:30 & camped. Sandwiches ½ box cookies, 3 beers. Slept like a log." The next day he drove back to **Kabul**, nursing a very sick car, but made it back to the old Hotel de Kabul by 6:30 pm.

During the next eight days Jack Harlan hiked around the city of Kabul working through red tape, fighting with a car that was guzzling gas, and making a few runs into the country to do some collecting, including a trip to Bamian (Bamyan or Bamiyan) 237 km west of Kabul (Map), where the huge statues of Buddha had been carved into the cliffs. The statutes were destroyed by the Taliban in 2001. The destruction of the statues was filmed. (Be sure your audio is on.) There are a lot of videos of these statues on line. I would recommend seeding this one: Bamyan.

"July 23: Slept clear through till 6:00. What a beautiful valley! Took pictures with mist rising off the fields. Hope they turn out. Sun wrong to photograph statues close up, so drove up to pass. Car behaving even worse. I might not get back to Kabul. Got some Iris & what looks like a cultivated oat. The first I've seen. Returned & took pictures of the statues. Camera seems to be gummed up with all the dust and dirt. Tinkered with car but did no good. ... In evening there was wrestling and dancing on the green with both Uzbek & Afghan music. Got meal out of hotel since a lot of tourists arrived. Hope to get off early." (NOTE IN MARGIN:) "This eve. one to remember. The setting sun was really something."

He returned to Kabul the next day and put the car in the shop again, then tried to see Louis Duprés, but he never showed. Harlan then packed up his seeds to send back to the US, packed his own gear and tried Louis Duprés one more time. They finally had lunch together on July 26; whereupon he departed for Jalalabad and the Pakistan border. He crossed into Pakistan on July 27 and spent the night in Peshawar. To see a map of his route click Map. To read more of his adventures click (TR) (Return).

Pakistan: July 27-Sept. 8, 1960 (44 days) (<u>Trans.</u>) To get a tour of Pakistan in 1964 watch <u>Pakistan</u>. There are two videos which will be very good to watch **before** you continue reading.

On July 27, 1960 Jack Harlan and his volunteer helper, Les Picard, crossed over from Afghanistan into Pakistan at Torkham and then over the <u>Khyber Pass</u> in the jeep that he had borrowed from Bob

Braidwood back in Iran, now about 1000 miles away. There was very little fuss at the border, then on to Peshawar for the night. To view some vintage photos of Pakistan in the 1950-s and 60's click Pakistan 1960. The next day Harlan checked with the US Consul and was told that they had received word that he was coming and that he need not even register since he had a special passport. The Consul made an appointment for him to see John Wilson, the hybrid corn man from the ICA. Harlan had come this far to visit some of the remote areas where no collecting had been done but these were areas that were still under control of the various mountain tribes. He penned in his diary for July 28, 1960: "Wilson called commissioner of Tribal Affairs & all is up in air over reorganization & even the commissioner doesn't know how I get permission to enter tribal territories." The tribal territories consisted of two areas, the Provincially Administered Tribal Areas (PATA) and the Federally Administered Tribal Areas (FATA). Both areas are in the mountainous north and west side of West Pakistan. The transitory nature of these arrangements made travel in and between them somewhat problematic. To negotiate the borders one needed to gain certain permits from various people who claimed authority. Following is a short summary of the history of the area and is given to illustrate the fluid nature of the borders and centers of power under which Harlan had to maneuver in 1960.

A Short History of Kashmir: Under British rule over Asia the boundaries between different nations and states became somewhat confused. The British sought to impose the European model of sovereign nations on a people who had simply operated in a very different way in the past. At the same time, the British sought to exert their influence over Afghanistan, Pakistan and India through a series of economic ventures and military invasions. The entire history is pretty messy and the boundaries are, even to this very day, in dispute in certain places.

Afghanistan was only under any kind of effective and direct British control between 1838 and 1840, following a British invasion sometimes knows as the First Anglo-Afghan War. A second Anglo-Afghan war in 1878 reduced British influence. Afghanistan was to become self-governing regarding its internal affairs, but ceded its foreign policy to Britain. A third war in 1919 reaffirmed the Durand Line – the boundary between Afghanistan and British controlled India established in 1893; but it gave Afghanistan effective control over its foreign relations as a free and independent nation.

India was granted independence from Britain in 1947, after a protracted struggle. The nation was subsequently partitioned into a predominately Muslim West Pakistan, Secular India and Muslim East Pakistan. A mass relocation of peoples followed, as Muslims fled to the nearest Pakistan and Hindu and others of various miscellaneous religions went to the more poly-ethnic and poly-theistic India.

The fate of the disputed area of Kashmir was left to sway this way and that by the global "Cold War" between two world Superpowers: The United States of America (USA) and the Union of Soviet Socialists Republics (USSR). Who controls the beautiful and erstwhile peaceable mountainous lands called Jammu and Kashmir depends upon whom you are talking with. As of this writing (2014) control is still in dispute. The following is copied from the US Department publication: US Dept. of State, Office of the Historian, Milestones 1961-68, The India-Pakistan War of 1965. (from https://history.state.gov/milestones/1961-1968/india-pakistan-war.)

The state of Jammu and Kashmir, which had a predominantly Muslim population but a Hindu leader, shared borders with both India and West Pakistan. The argument over which nation would incorporate the state led to the first India-Pakistan War in 1947–48 and ended with UN mediation. Jammu and Kashmir, also known as "Indian Kashmir" or just "Kashmir," joined the Republic of India, but the Pakistani Government continued to believe that the majority Muslim state rightfully belonged to Pakistan.

Conflict resumed again in early 1965, when Pakistani and Indian forces clashed over disputed territory along the border between the two nations. Hostilities intensified that August when the Pakistani army attempted to take Kashmir by force. The attempt to seize the state was unsuccessful, and the second India-Pakistan War reached a stalemate. This time, the international politics of the Cold War affected the nature of the conflict.

The year 1960 was one of relative peace in central Asia and Jack Harlan was able to secure permits to travel in the "Tribal Areas" and into Kashmir with little obstruction, however only after some pushing and persuading. He stayed in Peshawar, Pakistan for 4 days. While at Peshawar he visited the Tarnab Experiment Station with John Wilson and found <u>D. ann</u> (Dichanthium annulatum complex). Dr. Harlan was searching for samples of D. ann in central Asia to develop a theory of how this grass was introgressing in the high elevations of Asia. That night he wrote in his journal: "Could be (D. ann) escaped from old ground plots but I doubt it. Looks like Jalalabad & Girishk material. Took spin to Kahot pass & saw a new (?) type of D. ann. Looks like we have finally found the range. Maybe not have to go south much after all – perhaps to Bannu only & may not need to go into tribal areas."

On August 3, Harlan <u>relocated</u> to <u>Rawalpindi</u>, West Pakistan. (<u>View old Photos of Pindi</u>) The following has been copied from Wikipedia about Rawalpindi:

In 1959, the city (Pindi) became the interim capital of the country after President <u>Ayub</u>
<u>Khan</u> sought the creation of a new planned capital of Islamabad in the vicinity of Rawalpindi. As a result, Rawalpindi saw most major central government offices and institutions relocate to nearby territory, and its population boom.

There Harlan was able to work his way through the red tape to get the required permits. Allow me to let Dr. Harlan tell the story:

Aug. 3 Wed. Went to Transport Office Ministry of Kashmir affairs & dismissed Les to take car to garage. This was wrong place, but near Gordon College (Rawalpindi) – so, called there. They had gotten my letter, but no mail. They will hold. The Principal gave me a note to take to the Ministry & I took a Tonga – long ride – about 2 miles. The man I took the note to immediately turned me over to a Mr. Hyderi who issued a pass on the spot for Gilgit but said he could not guarantee that we could get to Chitral since there were restricted areas on the way. The political agent – he said – could do it. Sounds like Parachinar all over again, but we shall see. Took tonga back to hotel. Killed aft reading an Aldus Huxley novel. Les had brought the car not finished but runs well.

On Thursday, August 4, Jack Harlan remembered that it was his wedding anniversary, but he felt he did not have time to even write home to Jean. "August 4, Thur., My wedding day but not much chance to write. Car finally done & we packed but it was 11:00 by then & we would pay for lunch anyway, so waited." It is not very clear why he could not write Jean on his wedding anniversary with all that waiting he had to do. At any rate, he did some quick subtraction in his head and a calculated that they had been married 22 years; but no time to write. He thought for a moment about Jean back at Stillwater, supervising their four children, ages 10 to 15, with not a lot for them to do in Stillwater, Oklahoma in August. While he was waiting on the paper work to work itself through he decided to take a little collection trip: from Rawalpindi to Gujrat, then Lahore, then Sargodha and back to Pindi in four days. This is a total distance of 440 miles. See route for a map of this route. While on the road he was working on the paperwork. When they got to Lahore he called on Col. Hush-Wach il Mulk (Khushwaqt ul Mulk) to try to get some help with permission to go to Chitral. If he would help, he could help. His uncle, Saif ul Mulk Nasir, ruled Chitral⁷. The web site referenced here states that Saif jo mulk Nasir was only 10 years old in 1960 and never effectively ruled Chitral. He also called on Dr. Sultan Ahmad, who ran the herbarium at the Department of Botany, GC (Government College) University Lahore. The visit was very good and Dr. Ahmad gave Harlan a copy of "Grasses of W. Pakistan" and he promised to send him some literature. Afterwards Harlan visited the famous Shalimar Gardens in Lahore. He returned to Pindi on August 7, doing some collecting along the way.

Kashmir (Aug. 13 – 22: 10 days)

The next four days were spent reading, working through the red tape and getting the car fixed again. Finally, on August 13 they tried to get through the Kashmir border and were successful. That morning they could not get started until almost 10:30 AM and by that time it was raining. Harlan wrote in his journal: "Road not too bad, but held up at barrier from 12:45 until 4:00. Hiked through hills & old army camp – raining & misty – not too much to see except large troops of monkeys working through the woods. Barrier opened & went on to Abbottabad, Mansehra and finally Balakot." View Route. This was a good start, but the car was again giving them some trouble. "Filled tank & plastic can at Mansehra & bought more brake fluid as we are in trouble with brake - the cap to master cylinder is cracked. At Balakot the rest house was jammed & we were put up in the dining room. Tried to get brake cap fixed – no go – so tried liquid solder & padded the top so that the place would push down on it. Rained more in night." Jack Harlan was not exactly what you would call "mechanically inclined", but time and again, he

⁷ Note that according to the web site referenced here Saif jo mulk Nasir was only 10 years old in 1960 and never effectively ruled Chitral.

had to do what he could do to keep these vehicles moving him along. Meanwhile monsoon rains are continually falling. Evidently, it was bad timing on someone's part to plan to be in Pakistan during the monsoon season. Following is a report on the annual monsoon season in Pakistan. Note that it says that the monsoon affects "almost whole Pakistan excluding ..." the areas that Harlan was visiting. Therefore, it was not exactly bad planning, but bad weather that was the cause of their difficulties. And, besides, Harlan's timing had more to do with when seeds would be available for collecting than the weather.

Southwest Monsoon occurs in summer from the month of June till September in almost whole Pakistan excluding western <u>Balochistan</u>, <u>FATA,Chitral</u> and <u>Gilgit–Baltistan</u>. Monsoon rains bring much awaited relief from the scorching summer heat. These monsoon rains are quite heavy by nature and can cause significant flooding, even severe flooding if they interact with westerly waves in the upper parts of the country. http://en.wikipedia.org/wiki/Climate_of_Pakistan.

Aug 14 – "Up at 5:00 – put in mended brake cap & made the barrier at 6:15. Road pretty good. Convoys going both ways – are to meet at Mahandri & cross at 9:30. Then we must pass Naran by noon, which is starting point for down convoys. View their progress. About 25 jeeps lined up at Mahandri barrier, but many of them going only to Kagan, etc. (Kagan (Kaghan) was back to the south, where they had already passed.) Made all barriers on time, but not much clearance to collect until Naran & the pressure was off. Climbed slowly to Babusar Pass. Top 13,690 ft elev. Beautiful view & lovely mountains, but cloudy & misty. Motor heating quite a bit & low power. Lots of low gear & some compounds & eating up the petrol. Camped on the top. Les has nice double fly French tent. Slept well despite rain & high wind."

They are finally ready to enter Jammu and Kashmir. On August 15 they drove down a long way to the Indus River and up the Indus valley to Thelichi Gah, Kashmir. We must remember that Kashmir has always been in a state of conflict; however, 1960 was a year of relative peace. The following web site gives us a Historical Chronology of Jammu and Kashmir State. As you can see from this list, Kashmir has been ruled by many different outside powers. Kashmir, beautiful and peaceful Kashmir, always the ruled and never the self-ruled. She is too beautiful a gem to be anything but a bride: kidnapped, fought over, disputed over by jealous suitors, all wanting to have her embrace. The Moguls, the Hindus, the Muslims, the British, the UN, all young and virile males. Oh, to sit under her famous Chinar trees, eating a Wazman banquet and sipping kahva, viewing her astounding mountain peaks.

The car is still loosing brake fluid and the going is slow. "Lots of low gear & compound so little motor in trouble all the way." They found a rest house; but, "bad night – very hot & midges (gnats) kept me awake. Moved out on porch where it was cooler, but just as many midges"

The next day, August 16, they arrived at <u>Gilgit</u>, on the Pakistan side of <u>Kashmir</u>, showed somebody their permit and met the Raja of Gupis in the office of the Political Agent (PA). The Gupis valley is very beautiful and the Raja of Gupis was a wonderful host. <u>View route</u>.

What happens next would be best described by Jack Harlan's first-hand account:

"August 17 Wednesday: Called on assist. PA Mohammad Beg. He said all is alright & no objection & to stop by for a letter to take along. Called on Agricultural officer & made tentative plans for collections. Back to rest house & wrote Liz, Mommer (Jack's mother) & Jean, while Les to see the Major. Brake cylinder cap fixed (we hope) & 15 gal of petrol purchased at \$2.00 per gal (compared to 25¢ per gallon in the US at that time.) At 2:00 pm the Agr`. Officer & a village Aid man came & we set off in their jeep to collect. Visited a youth club & got a few seeds & ate fruit & drank tea, etc. Then to a farmer's house, ate fruit & got a few seeds, then to another farmer's house - same deal - back to youth club for practically High tea, fruit & etc. while the boys played Scottish tunes on pipes & drums. Pretty rough on the stomach. Back to rest house, then through the bazaar to a soccer game between the Northern Scouts & Huma. Band uniforms remarkable combination of Scottish plaid, local pancake hats, spats, etc. Pipes & drums, brass & reed, impressive closing ceremony – game not much – but oh that army!"

Gupis is the western-most part of the northern-most area of Pakistan and the <u>Gupis valley</u> is an extraordinarily beautiful and remote mountain treasure. Driving over treacherous, winding roads they finally found the home of the Raja of Gupis on August 20 and spent the afternoon with him in his back yard. The Raja was seated under an umbrella the position of which was moved by two of the Raja's servants to keep him in cool of the shade as the afternoon progressed. This is what this author's father told him on several occasions.

Before proceeding any farther Harlan had Les remove the spare tire from the side of the jeep and placed it on the rear, so as to allow the jeep to negotiate even more narrow a roadway. They were to go up a road with cliffs on the right and a shear drop-off on the left. They proceeded on to Teru, about 70 km or more to the west of Gupis, up the beautiful and enchanting Gupis Valley and stayed the night in a Dark Bungalow. No one knew what would have happened if they were to encounter another vehicle coming down the same road; but that did not happen, so they made it. It was on this collection trip that Jack Harlan found and collected the old world bluestem which was later called "WW-Ironmaster" because it did well in iron-poor, high pH soils, like the red clays of Oklahoma and Kansas.⁸ Harlan introduced it unto the United States, it went through quarantine and made it to OSU, where Bob Ahring grew it out.

The next day, August 22, they took a leisurely drive to Shandur Top, a plateau area about 20 km west of Teru and at elevation 12,200 feet, collecting as they went. "At the top about 10:30 but drove the (borrowed) jeep down the mule track a bit too far. In trying to get out Les flipped it on its side. We unloaded it while man was sent to the village for help. Six men plus two with horses and three of us turned it up & eased it down to lake shore where we reloaded it. Backshresh (tip) was only Rs 8 for the whole job. I loaded my stuff on the horse & sent back the second horse the Raja had ordered for me. Finally got away about 2:00 PM." Having sent Les back with the jeep, Harlan now is heading out through the mountains of northern Pakistan by horseback, with a local guide walking with him leading a pack horse carrying their supplies and bags of collected seeds. Harlan says nothing in his notes about repairing the borrowed jeep, but that seems to be Les' problem. They made it by horseback to Harchin,

⁸ I believe this to be true because I witnessed a slide show Harlan put together at a meeting held at the Woodward Experiment station in the 1990's in which he recounted this expedition including photos of the tire on the side of the jeep and then on the back so that they could continue up the narrow mountain trail. And, at the time they were all talking about how Harlan collected Ironmaster on this trip to Pakistan. The website referenced, does identify Ironmaster to be *B. ischaemum*. (HVH2)

28 km on up the valley to the west and then north. There they stayed in an abandoned Dark Bungalow. After a traveler's feast of a tin of Kippers, some cheese and biscuits Harlan slept on the porch. "Very tired, but in some ways a good day. The jeep could have been flipped in the Indus or somewhere else – it might yet." (Return)

Harlan continued on horseback through this remarkable land for 3 days, sleeping in, usually abandoned and/or unfurnished, "Dark Bungalows", with tea & eggs for breakfast and chicken & rice for dinner, squashing bed bugs and making a few collections. Map of the route. Note that they horseback portion of the route was from near Shandur Top to Harshin.

Saturday, August 27 was supposed to be a day of relaxation, but it turned into a day filled with anxious negotiations for transportation into Kafiristan. Harlan had been hearing about the Kafirs and their fierce resistance against the Muslims⁹. Even though the Muslims thought they had this tribe converted, they still clung to their ancient pagan beliefs and made wooden carvings of deities and ancestors. This is what fascinated Harlan: a pre-Islamic people in Pakistan would be like finding a pre-Christian people in Europe. Note that when the Taliban came to power in Afghanistan in the 1990's they sought to cleans Kafiristan of it idol worship. They swept in and destroyed many temples and chopped up the wooden idols. Many of the defaced carvings have since been recovered, restored and put in museums. When Jack Harlan came through Kafiristan he did not see the wood carvings, probably because they were all in temples. He was intensely interested in "primitive" or "pre-modern" peoples, what they believed and how they lived and he wanted to see the wooden figures he had heard about. For images about the Kaffirs and Kaffiristan click Kaffirs.

At any rate, Jack Harlan had to meet with the authorities about authorization to travel into Kafiristan. The P. A. was not in so he met with the Assistant P. A. who said that he would try to find transportation for him. Harlan appealed to him by saying "If I can't get a jeep I'll have to walk 26 miles over a pass with a pack on my back." After he left the man's office, Harlan took in a little leisurely collecting trip, "crossed the river & climbed to a farm where I sat under a walnut tree & visited & watched the wonderful view. Decided to come back in aft with my camera. Upon return to Rest House found a note that said no jeep available & I should give up trying to see Kaffiristan. Went back to Assit. P. A. & long discussion of various possibilities. Finally he located a jeep going out of town tonight & I located one (the Cambridge Group) going out tomorrow. So I had to get the laundry back from the washerman, pack, skip the pictures I wanted to take, etc. The jeep was wonderful to behold & after too many breakdowns to mention reached Gahret at dusk. Since jeep had no lights either (& very little that did work) the owner, Sayed Chiragh Hussain Drosh Chitral State, & his 6 passengers were put up at the house of the owner's sister. Dinner at 10:00 pm & slept out; mosquitoes terrific when wind died."

Aug 28 Sun "This gang didn't stir early despite all their talk of an early start. They got me off at 6:10 with a bearer. Hiked the 5 miles to Berir. Lovely canyon, beautiful stream, corn fields, etc. Nice village of Kaffirs. Paid some girls for posing & dancing so photographed costumers, etc. Also basksheech to

⁹ A Kaffir is an Islamic non-believer. In 1960 there was a province of Afghanistan called Kafiristan in the Hindu Kush near Pakistan. They were well known for their wooden carvings of ancestors and deities which pre-existed the Islamic invasions and forced conversions of the 19th century (officially 1896), however the name Kafistan, "Land of the Kaffirs (unbelievers)" remained for some time. The new name is Nuristan, "Land of Light". See: http://www.oeag.or.at/media/publikationen/kabul_museum/KabulMuseum.pdf.

handiman. Took pictures of village but no wooden idols & very little wood carvings. Disappointing. Waited to buy the small drum, but he wanted PS 100. Maybe I should have gotten it anyway. Hike back nice but feet very, very tender. At rest house tea, bath & shave & went for the Cambridge party. Waited until 5:00 pm. Couldn't sleep because of watching the road. Finally got a ride in an old beat-up truck to Drosh (44 miles north of Dir). Collected a few seed and ran into Abdul Samael, Drosh, Chitrel State, W. Pak who had helped Cambridge group & I ordered a wooden figure from Kaffiristan & advanced Rs. 60. Late the Cambridge party arrived to dinner at the commandant's expense. They would have passed me up."

Harlan rode with the Cambridge students the next two days, over impressively narrow and winding roads, over the Lowori Pass, but "stopped by the check port going out of Dir at 10:00 pm. Went to the man's house to argue that we could go on, but he fed us & put us up at the rest house in the fort & we didn't argue any. Sand flies of night before giving me fits – worst insect attack of the trip." The next day this "badly disorganized & demoralized lot" (the Cambridge group) made it to Peshawar¹⁰ and Harlan lodged at the Lalazar hotel. Les showed up there at 4:00 p.m. and the two of them went out and bought some beer. They returned to the hotel and packed up the things that Harlan had left there earlier that month. Their plan worked like a charm.

So, finally on September 1, 1960, Harlan had a day to try to reconsolidate, but he ended up doing a lot of running around. He had to process his seeds and get them ready to mail back to the US. They had over a thousand accessions now. Then he had to push through some more paperwork to get the permit to go to Parachinar. Then, he went to the US consul and checked on his mail, met with Dr. Weber of Colorado State University: all this in the morning, so Les could take the car in to be checked out in the afternoon. On top of all that, he had to try to find a drum for his son, Harry. On the road to Parachinar the next day he saw some interesting varieties of Bish, Bint & Dan, but he could not stop to collect. They were only 14 miles out when they got a flat tire. After changing the tire they proceeded on to the barrier. The officials didn't think much of the permit they presented, but let them pass, any way. They made it to Parachinar by 2:00 pm and checked in with the P. A. who wanted to see them again the next day.

On September 2, Harlan met with the P. A. at the designated 9:00 a.m. meeting, then a meeting with the Agricultural Officer and the forestry man. Finally, he was released to make a short collecting run up a mountain. He found the Bish very green, collecting a little because it was just too soon and there was no point in going higher; so he returned to the hotel in Parachinar. The next morning Harlan went collecting as he drove back to Peshawar, picked up some Bish, Bint & Dan. To see the details of these collections click Diary (Return). Dr. Harlan noted, before the time of the expedition, that Bish, Bind & Dan were introgressing with one another. He had been studying this since 1957 at the latest. Now, he was seeing it with his own eyes, in the wild. With great anticipation he collected seeds and sent them back to OSU where Bob Ahring grew them out under very nearly identical conditions, and did some back crossing per Harlan's instruction. When Harlan returned to OSU, Bob Celarier performed cytological

¹⁰ on 1 May, 1960 fifteen days before the scheduled opening of an East–West summit conference in Paris, Captain <u>Francis Gary Powers</u>, flying Article 360, *56*–6693 left the US base in **Peshawar** on a mission with the operations code word *GRAND SLAM*[™] to overfly the Soviet Union, photographing targets including the <u>ICBM</u> sites at the <u>Baikonur Cosmodrome</u> and <u>Plesetsk Cosmodrome</u>, then land at <u>Bodø</u> in Norway." (Wikipedia) The U-2 airplane was shot down by the Soviet Union, causing a huge international incident.

studies on the chromosomes of the plants. Careful measurements were made of the length of the various parts of the plant's inflorescences. These were plotted up and the results published in the December, 1963 issue of Botanical Gazette in a paper named: "Natural introgression between *Bothriochloa ischaemum* and *B. intermedia* in West Pakistan." *B. ischaemum* and *B. intermedia* are the Bish and Bint which Dr. Harlan was chasing all over Asia. Dan was not mentioned in the title, but it was mentioned in the paper. These three grasses, two of the same genus (*Bothriochloa*) and one of a different genera (Dan), but they all seem to be able to mate with one another. The complex is so complex that it defies exact taxonomic naming. Introgression seems to be more prevalent in the grass (Poaceae) family, but these studies point to an underlying flexibility of the genetic system which is responsible for the propagation of all forms of life on planet Earth.

Another outcome of this investigation was that Harlan and de Wet coined a new word, <u>compilospecies</u>, and wrote it up in a paper published also in December, 1963: "The Compilospecies Concept" (Evolution 17: 497-501). A compilospecies is a species which is genetically aggressive and tends to rob other, similar, species of their genes, even to the extent as to render them extinct.

Getting back to the 1960 Expedition, September 4 was a bad day all around. Harlan had to fight with the garage about the car in Parachinar and his stomach was starting to act up while driving up the mountains to Malakand. They never really got there, because the car was just barely sputtering along, so they turned back. The collecting trip having failed, Harlan had to get back to Peshawar, but the car was sounding so weak he did not want to stop and shut it off while he went to the bathroom. After an agonizing time he made it back to Dean's Hotel and was able to relieve himself and take some pills. This is the worst day Harlan has had on this trip so far.

The next day was not much better - because it was the birthday of the prophet Mohammad and everything was closed. All Jack Harlan, intrepid explorer, could do on that day in Pakistan was to loaf and read a book on philosophy. At the end of the day a man named Bill Weiss arrived at the hotel and volunteered to fix the jeep the next day. That was the only good news for two days.

On Tuesday, September 6, Bill Weiss repaired the car, but Jack and Les were very skeptical about the soundness of said machine. They drove the jeep by the bank and headed for Gujrat about 350 km away. It was 10:30 before they got started on their trip and, because of the late start and because of the questionable condition of their automobile, they dared not stop to do any collecting, but pushed on. The first mandatory stop, however, was Gordon College in Rawalpindi to pick up any mail for Jack Harlan. When they arrived they found the college completely locked up. Evidently, Mohammad's birthday was still being celebrated. They woke four people they knew before they found someone who could get Harlan's mail. Pressing on they arrived at Gujrat about 3:00 pm, but there was no room at the hotel where they had lodged, back on August 11. So, being undeterred, they drove on to Gujranwala, 52 km on down the road, where they found a rest house. The proprietor said that Lahore was 42 miles ahead.

The next day they made it to Lahore in good time and took the car to a Mercedes mechanic. While he worked on the car the two took a taxi to the old Jail, which had been converted to some office space, and saw the Director of Agriculture to talk with someone about guar, the plant from which gum is

extracted. After some searching they came up empty, except they were given the names of two people who might know something. After retrieving the car the Harlan-Picard term went by the US Consulate to drop off the seeds they had collected. The Consulate would mail them to the appropriate seed bank in the states. After securing all the necessary permits they set out for the border crossing into India for the following day, Thursday, September 8.

This crossing into India was very non-descript in 1960. This particular crossing, between Lahore, Pakistan and Amristar, India, had been established in 1959, but a very unusual ritual began to grow at this crossing some years later. No one knows, now, how it began, but a few years after our plant explorers passed through with no problems one side or the other, either the Indian guards or the Pakistani guards, began to march back and forth at the gate when it came time to close it for the night. The other side saw what was going on and they did the same thing, although a little bit more flamboyantly. The first side retaliated by adding a few more maneuvers. Years have come and gone and the rituals have grows completely outside the scope of human imagination. Today (2014) what has become known as the Wagah Crossing has become a world phenomena, in which the two sides have developed an almost unbelievable flag lowering and gate closing ceremony, complete with fantastically elaborate uniforms and outlandish strutting around and goose-stepping on both sides. Thousands of people assemble to witness this nightly ritual and participate with their own singing and dancing around. The spectators on the Indian side get into the celebration much more than the more sedate Pakistanis. Click here to go to a web site on the Wagah Crossing.

Crossing into India

The Harlan-Picard team did have a bit of a difficulty at the crossing into India, however. The Pakistanis had no problem with the jeep leaving their country, but India did have a problem with the jeep entering their country. India wanted to charge a duty equal to the value of the automobile. After much discussion and arguing about it all, and a phone call to the Raja of Gupis to see if he wanted it, which he did not because the duty had not been paid for it, 11 Les returned to Lahore with the vehicle to place it in storage and Harlan took his stuff and went by taxi to Amritsar, India, 30 km from border. The jeep would remain in storage in Lahore until such time as they could get it out. Harlan wasted no time in Amritsar, but dropped off all his stuff at the Grand Hotel, went to the bank and got some Indian rupees, bought a railroad ticked, went back to the hotel and got his stuff and, finally, to the railway station and took the night train to Delhi. No time was wasted.

Many years later Dr. Harlan would comment on this expedition, in tape recorded conversations with this author, saying: "I do not know what happened to the fruits, ornamentals and miscellaneous things I collected. No one ever tells a collector if he's been useful or not. But I do know about the targeted grass that I went for. The reason I was taking this trip was to collect certain grasses. I even had a small grant from the Guggenheim foundation to study introgression between lowland forms and highland forms of this grass. The grass samples were sent to the United States and I grew them in Oklahoma for

¹¹ The phone call to the Raja of Gupis is from Tape 4.

some years and worked with them. When I left Oklahoma for Illinois, a student¹² of mine continued the work and is still working with them at Woodward, Oklahoma. This grass now covers a few million acres in western Oklahoma and into the high plains of the Texas and Oklahoma panhandles, upward into Kansas, down into Texas."

"What kind of grass was it?" I asked.

"Well, this was called Iron Master. The Latin name is <u>Bothriochloa ischcamum</u> (**ischaemum**)¹³,It's a forage grass. It is spreading on its own because it is very weedy. It thrives; it will crowd out native grass. I have committed an ecological sin by introducing an alien species that is crowding out the native ones. However, the U. S. Department of Agriculture some years ago estimated that the increased value to farmers and ranchers of the region was on the order of \$100,000,000 per year. And this can be multiplied by X by now because thousands of acres are being seeded each year. Yes, it crowds out the native grasses, spreads on its own but it yields four times as much as the local vegetation. But even if we take \$100,000,000 a year, in 10 years, that's a billion. And pretty soon we're talking real money¹⁴. The story of the introduction is not finished because these are aggressive grasses; they will spread to the limits of their adaptation, whatever that might be."

India: Sept 9-Dec. 11, 1960 (94 days): (Trans.) (Return)

First collection trip in India/Kashmir (Sept. 16 – Oct. 7)

Second Indian Collection Trip (Oct. 12 – 16)

Harlan relocates to Bombay, Oct. 30, 1960

Third Indian collection trip (Nov. 5-17)

Fourth India collecting trip (Nov. 26 – Dec. 3)

Fifth India collecting trip (Dec. 4 – 8)

Harlan took the train from Amritsar to Delhi on the night of September 9/10. It was a sweltering day in Delhi. It was early September and even though the summer was about over, it was hot and humid in that amazing and dreadful city. He first found lodging at the Imperial Hotel in downtown Delhi. His secretary back in Stillwater had made the reservation for this hotel, not knowing the difficulties it would present to this self-motivated and determined American sojourner. The hotel was far beyond Harlan's taste - and his budget. It is part of the Oberoi Hotel Chain, which was known for its opulence. Today,

¹² The student mentioned is probably Chet Dewald.

¹³ B. ischaemem is Yellow Bluestem. The first spelling was what Dr. Meg Brooks wrote in her transcript of Tape 4. We believe that the correct spelling is the second one, because that is what was entered in the A-Book (page 56) as "A-8774, collected by Jack R. Harlan at 84 km N. Kermanshah – road to Sarandaj", Iran. ¹⁴ This was in reference to a quote attributed to US Senator Everett McKinley Dirksen, who speaking of the federal budget said: "Well, a billion here and a billion there and pretty soon you are talking real money."

the New Deli Oberoi is rated as Five Star luxury accommodation. Harlan didn't particularly want to be there and waste his money on unwanted luxury. On September 9 he wrote in his diary "Les will have a hard time finding me, I'm afraid." But, the next day's entry includes "Les arrived." No one knows how he did it, but he did. However, Les was now quite sick and Harlan found a nursing home for him where he could recover. Over the next two days Harlan managed to make a few phone calls, but it would seem that the imposed luxury of the Oberoi was taking its toll, because he noted in his diary on September 11 "No ambition." This hotel was killing him!

The very next day, however, he was rescued from his forced idleness. He ventured out and traveled by taxi to the Rockefeller Foundation building, where, after hearing his story, the good people of the Foundation offered him sleeping accommodations - on the roof of their office building. The Rockefeller Foundation had been in India as part of the just budding "Green Revolution" which had it birth in Mexico, where Norman Borlaug began working with improved varieties of wheat, but he came to India in early 1960's to begin to work with local researchers to grow his new wheat in India. Thus Harlan slept on the roof of the Rockefeller building in New Delhi for 3 nights and, much recovered from his bout of luxury, set off on Sept. 16 on his first collection trip in India/Kashmir, for Kashmir.

First collection trip in India/Kashmir (Sept. 16 – Oct. 7, 1960) (Return to start of India Phase)

Having rented a little Fiat for the trip, Harlan and Les Picard set out toward India Kashmir, stopping the first night in Pathankot, India, just inside the border with Kashmir. While in Pathankot and before crossing over into Kashmir, they happened to run across Dr. Gardiner Bump, author of "The Ruffled Grouse", which had been published in 1947 and by which he was immediately recognized by Jack Harlan. Dr. Bump was accompanied by his wife. They had drinks together and Dr. Bump advised him on how to find lodging on the houseboats in Kashmir. The next day Harlan and Les Picard passed into Kashmir, drove the 125 miles north to Srinagar and found a Shikara, or gondola, which took him to a houseboat, just as Dr. Bump had promised. It seems that Dr. Harlan did not get a lot of collecting done on this excursion. The houseboat was just too comfortable. On September 20, he sent Les, who had recovered from his illness, off to work on the car, which was now, like practically every other vehicle they had on this expedition, giving them trouble. Harlan pressed on. He would write in his diary: "Fotedar & I took a taxi to Tangmarg, (about 23 miles to the west). From there we rented ponies and rode up to Gulmarg, (about 7 miles up into the mountains to the west.) Arrived at hotel at 12:30, too early for lunch so had a couple of beers, then lunch & then rode on up to about 10,000 ft elevation at Khillanmarg¹⁵, botanized awhile and made some collections. Nice scenery but much too hazy to be spectacular. Rode back getting to Tangmarg at about 6:30 & came back to the boat at around 7:30. Les still out with car." To view a map of this trek click Kashmir Trek.

On September 21 he went with R. K. Mattoo, acting as his guide, to the <u>Lolab Valley</u> to do a little collecting; but there was not much to collect. The next day he went out again with Mattoo, in separate cars, to <u>Phalagam</u>, again with little collecting and <u>enjoying the view</u>, in the name of science! They stayed in a Dark Bungalow in Phalagam. The next day they tried again, with a little more success: "At

¹⁵ **Khilanmarg**, <u>Jammu & Kashmir</u>, <u>India</u> is a smaller valley about a 6-km walk from the <u>Gulmarg</u> bus stop and car park. (Wikipedia)

<u>Chandanwari</u> ca. 9 miles above Phalagam we left car & hiked – several miles & climbed a little over 1,500 ft to something over 11,000 ft elev. Collecting poor, but got a Bermuda grass at 9,570 ft & dwarf junipers & a pretty little cotoneaster (a flowering plant related to the rose). Actually a pretty tough hike for an old man but I was doing better at the end than the Indians." Harlan does not seem to be collecting at as great intensity as at other times. He noted that the collections were few, but he was enjoying the scenery and trying to take good pictures of the mountains wile collecting. To see a map of this Kashmir Trek in the Lolab Valley click (<u>Kashmir Trek 2</u>, don't forget to click on "satellite" view)

On Saturday, September 24, he set out again, this time to the city of Jammu, 145 miles to the south, even though the car was not acting right. Les was supposed to have gotten it fixed, but the generator was now giving them trouble. The trip was hampered by trucks, trucks and more trucks, everywhere. They clogged the roads and the rest stops. Finally, after much slow going he reached Jammu and spent the night in a Dark Bungalow. The next day he "drove to Pathankot (India) without incident or collections & then started working to <u>Dalhousie</u>. B. pert was found only at lower elevations, then Birch & Dan came in. Very jungly country but hacked & butchered to scrub. Very twisty road & no collections the last 20 miles." The next few days were just as bad. The car was still acting up and the collections were few. On September 29 he found his way to Kulu (Kullu) and the town fair, which featured a number of gods. The next night he wrote: "Drums beating & horns blowing off & on as the village gods arrived & processed to the temple & returned. ... about 4:00 pm they began to assemble on the green & danced about with their colored shrines of gods on their shoulders. Groups danced in front as they worked their way through the crowds. Rituals performed at the main shrine mounted on wooden wheels. More & more until as little after 5:00 somewhere between 40 & 50 village gods grouped around main shrine & with mix crescendo of drums & horns the shrine is pushed across the green & down to another one 100 yards below. All very colorful & rather impressive but too late in day for good color shots. Took pictures like crazy in both black & white & color but not much hope of anything really good. After shrine was moved the village gods were taken into a canvas enclosed compound where the priests had a tent and more ceremonies, then to a second Major tent where the (ex) Raja received them. After that all was quiet. No celebration as one might have expected." To see map of this part of the journey click Map to Kullu. To see images of Kullu Dussehra festival in 1960 click Kullu 1960. For a more recent look at this festival, click Kullu Festival today. My, the colors, the sounds and smells of these festivals must have been mind-blowing. See the following video. The large tent in the video is the shrine on a large cart with wheels, for the main god, Ram. The other gods come near the Ram shrine and bow to him. Finally the Ram shrine moves forward with many people pulling on ropes. Please note that almost all of the people participating in this festival of the gods are men. Very few women are evident and they may be tourists. All this makes New Orleans Mardi Gras look pale in comparison. It would seem as though Dr. Harlan stumbled onto Kullu when the Dussehra festival was about to begin; however, although he makes no mention of this in his notes, this author feels that he must have found out about the festival ahead of time and planned his side trip accordingly.

To view Harlan's daily diary for the Kashmir phase of his journey click Kashmir Diary. (Return)

September turned to October and he had one more week on the first Indian collection trip. Continuing on from Kullu, he worked his way back to Delhi over the next several days, visiting **Mandi, Shimla,**

Karnal, Mussoorie and **Aligarh**, usually spending one day at each place, visiting the herbarium at Dehradun and collecting as he went. Harlan tells a story about this visit in his book: "Plant Scientists and what they do."

After working through the herbarium (photos from 1960) for a while, I stepped out on the porch for some air. It was still drizzling. A barefoot man in a dhoti and a turban was trying to mow the lawn. He had a reel lawn mower pulled by gray humpbacked bullock, and they were splashing through the soggy turf. A uniform sprinkling of slender grass stalks about 18 inches high marred the otherwise rather even grass. Many of the stalks were fuzzed out with ripe seed. I knew that grass. I had been collecting it for months, and it was the main reason I was in Dehra Dun.

The rain looked as if it would come down forever, so I sloshed out into the drizzle, stripped some soggy heads of seed and put them into a soggy envelope, and sloshed back to the porch, soaking wet. The next year I grew plants from this seed lot in my nurseries at Stillwater, Oklahoma. The plants at Stillwater had leaves a full inch wide, and the seedstalks were over five feet tall – a far cry from a turf grass.¹⁶

Harlan arrived in Delhi on October 7, 1960. To see map of the return trip to Delhi click <u>Map</u>. When he finally arrived he went to the Rockefeller building, sorted his collections, wrote letters, met people and slept on the roof for 3 days. Then, on October 12 he started off on a second collection trip, this time to the southwest into <u>Rajasthan</u>, visiting <u>Jaipur</u>, <u>Ajmer</u>, <u>Gugarat</u>, <u>Jodhpur</u>, <u>Godhana</u> (<u>Godhra?</u>) and <u>Kota</u>, returning to **Delhi** on October 17. <u>View India Collection # 2 Route</u>.

Second Indian Collection Trip (Oct. 12 – 16, 1960) (Return to start of India Phase)

On the second Indian Collection Trip Harlan and Picard drove first to Jaipur, 170 miles southwest from Delhi. The next day it was on to Ajmer, 81 miles southwest of Jaipur, with some collecting, and then to Jodhpur, 270 miles southwest from Ajmer, passing through Pali on the way. There they visited an Indian experiment station. That evening (Oct. 14) Harlan wrote: "Then went to expt. station and got guar & other seeds – to a farm for vegetable seeds & out to Central Arid Zone Research Institute. The agrotologist Mr. P.M. Dabadghad had nursery, paddock trials, forage trials, grass crop rotation, fertility studies & seed increase. Nice small program. Some collections on the way to Godhana, Gujarat." This second Indian collecting trip ended on October 16 when they returned to Delhi for 13 days of hiking the town, writing letters, drinking and talking with his new friends. He opted for an inexpensive hotel in lieu of the rooftop suite at Rockefeller. To view map of this trip click Map. To view his diary about Jack Harlan's second India collecting trip click Second ICT. (Return)

Harlan relocates to Bombay, Oct. 30, 1960 (Return to start of India Phase)

Leaving Les behind, Harlan relocated by train from Delhi to Bombay on the southwest cost of India, on October 30, 1960. He was in Bombay for 6 days before starting off on his third Indian seed collecting

¹⁶ "Plant Scientists and What They Do", 1964, page 110 & 111.

trip. One main reason for transferring to Bombay was to meet a well known Catholic priest named Fr. Henry Santapau, who was the director of the Blatter Herbarium, at St. Xavier's College, Bombay, and would be the director of the Botanical Survey of India (1961-67). More than anyone in India, Fr. Santapau knew the flora of India and both the Blatter Herbarium and the Botanical Survey of India were highly regarded. Therefore, after getting himself set up in Green's Hotel in Bombay and hiking all around trying unsuccessfully to locate a rental car, Jack Harlan headed for St. Xavier's College. Upon arrival on Tuesday, November 1, he found out that Fr. Santapau was in retreat until Thursday. That night he wrote in his diary: "This would be a hellava good idea for professors!"

Harlan returned to St. Xavier's College on Thursday and met with Fr. Santapau, "A big rugged-looking man with a square jaw & puffing on a big cigar". After talking for awhile the padre invited Harlan to go through his card index of plants and he located 9, possibly 10, endemics in the Khandala-Poona-Panchgani area. He now set his sights on the Poona area of India for his next Indian collection trip. He also noted in his diary that night "The endemics are there simply because grass men are endemic." This little puzzle probably means that the endemics are in the herbarium because there are endemic (native born) grass men who collect them. In the parlance of the botanists "endemic" means native to the area, as opposed to "exotic" meaning brought in from the outside. So Harlan's expression does not make much sense because both Fr. Ethelbert Blatter, SJ, for whom the Blatter Herbarium is named, and Fr. Henry Santapau, SJ are exotic, rather than endemic and Jack Harlan, being exotic is out to find endemics to bring to America as exotics.¹⁷

Third Indian collection trip (Nov. 5 – 17, 1960) (See Two kinds of gene centers in Bothriochloininae. American Naturalist 97: 91-98 for discussion about the results of this trip.) (Return to start of India Phase)

Harlan spent the next day, Friday, November 4 putting his things in order and taking a load of his stuff back to St. Xavier for safe keeping while he went to Poona (the name of the city is now Pune.) So, on Saturday, November 5, 1960, Jack Harlan took a train from Delhi to Poona to hunt for the endemics that he saw on Fr. Santapau's list, as well as continuing his own collections. He will be there for a total of 13 days, including a 4 day stopover at Lonavala on the way back. On Sunday evening he wrote in his diary from Pune: "Had planned a long collecting hike in country, but it rained. Finally cleared a little to get off a little after 10:00, but collecting not much. *D. caricosum* able to persist under extreme grazing pressure – also *B. pertuse*. The *caricosum* suggests some Dan introgression somewhat like S. Texas type. Watch for this. Back by 1:00 & lunch, snooze, walk in eve., dinner & bed. These towns are completely dead. Tremendous estates gone to seed; ruin everywhere. An English lady who had lived in Poona 35 years said before, the gardens were beautifully kept & there was lots to do, etc. Not, after." The before and after she spoke of must be Indian independence from Britain in 1947.

Monday, November 7 was spent at the <u>Agricultural College of Pune</u> and then trying to arrange some kind of transportation. At the college he met a fellow Stebbins student, Dr. Rui de Cruz and a Mr. N. Gopal Krishna, who offered him all the mango and banana seeds he wanted. Mangos and bananas were

¹⁷ I have to credit Cal Qualset for pointing this out to me.

on Santapau's list of endemics. The next day he had to switch to the Napier Hotel because his room had been booked. He tried to negotiate the use of a jeep but it was fruitless. The following day he went with Krishna and some others down to Wai, but the taxi in which they were riding broke down. The others returned to Poona, but Harlan, determined to get some collecting done, continued on in a taxi with 9 other people to the town of Mahabaleshwar & got a room at the Fredrick Hotel; all this by lunch. In the afternoon he went hiking in the country to collect. Let me allow him to tell you what happened next: "The usual luck held. By time I reached Wilson Point desolate, barren & no shelter it poured. Rains are supposed to be over, but I sure got a soaking & no grass at all to show for it. Also got a crack in the ribs from a bull at Wai when I was looking at the grass in his field. Pretty sore, cold & wet. Back at hotel got a bucket of hot water & a dish of tea & dry clothes. Went up town after dinner to try & get a late paper & see who won the elections. All closed up." The 1960 presidential election had been held in the US on November 8, but the news that Kennedy had beaten Nixon had yet to reach India. Harlan, being a Republican in the Eisenhower days, had supported Nixon during the campaign, but he left no reaction to the news of the election in his diary.

Jack Harlan is now in his element. He is all by himself, way out in the middle of some foreign country, where he does not speak the language; but he has his purpose. He is a plant seed collector and nothing can keep him from his task. There are no meetings to go to, no deadlines to make, except that he has tickets for Aden on December 11, leaving from Bombay. It is simply up to him how much he can get done in the time remaining.

So, he sets out on foot. He is now wearing boots and they are rubbing his hammer toes, but he had let his soft shoes go back to Poona with Krishna. His side was sore from some cracked ribs received from a very unfriendly and unsympathetic bull. He had no rain gear. He just had determination, born from a calling that he received when he was but four years old and that would not let him rest. Let the reader note that this author, Jack Harlan's son, has seen his worn out old canvas shoes with holes on the outside edge of each foot where his hammer toes wore through the shoes. If he had worn leather boots all the time, I believe that eventually these tough leather boots would have finally had to succumb to his hard little hammer pinkie toes. As we continue following this man with very sore feet, nevertheless hiking all over the country, hunting seeds, we have to just marvel at his determination. The drinks and the dinner back in the city were fine and the good conversation was good, but for this he did not come. He could do that back in Stillwater. He came all the way to India to collect seeds and painful toes were just part of the life he had been chosen to live. Let Dr. Harlan describe in his own words what happened.

Nov 10 Thu (in Mahabaleshwar) Off right after breakfast & walked back down Panchgani road 5 miles to where I had seen Bothinochloe on my way up. There are 2 kinds there. Both in bloom & no seeds. Wearing boots & feet pretty sore. Went back & took Lingmala Falls road. Down the falls & sure enough *B. concanensis* all over it & for once ripe. Got 2 plots & went on around the long way. If what I think is *D. serrafalcoides* then I have 2 out of 10 endemics. Also got what might be *B. suntzeana* on way up yesterday, so may have 3. Arrived back at hotel at 2:00 pm very, very footsore. Rested & worked up collections. Got paper in eve. with news of the election. No details & I probably won't get any here.

Nov 11 Fri Up early and packed. After breakfast took taxi to Panchgani. (Google: 11 miles from Mahableshvar). Located a prospect hotel & set off immediately in boots & still footsore. Right at edge of yard found *D. panchganiniense* & all looked bright. It is pretty green, but some seed, I think. Hiked on across the table lands & over rocky ridge where *D armeticum* is supposed to be, but not a sign anywhere. Looks like I'll have to stay another day at least. Back to hotel for 1:00 lunch with very tender feet. But one more endemic in the bag. In aft. took another hike (in my shoes). More rocky ridges but no luck. Tired but will keep trying. (in Panchgani for the night)

Nov 12 Sat Asked about 3rd tableland where *D. <u>McCannii</u>* is supposed to be east of. The manager didn't know, but the cook did. It being several miles, I rented a bike (1 ½ Rupees) for the day. By 9:00 I was east of 3rd tableland but no luck. Finally to be sure went down through a village & turned right & 100 yards on there it was and thick and with ripe seed. Got 3 plots plus some other collections & was back by 12:30. After lunch went out 'the Point' to try for *D <u>armaticum</u>*. Found with difficulty a few plants that would key out *to D. armaticum* but they look like *D. panchganiense* without a pit on pedicillate spot. I am suspicious of it. Maybe I'll find the real thing elsewhere. Anyway another endemic in the bag & possibly 2. Turned in my bike & back for tea. I could never have walked it. Good day & will leave for Poona (towards Bombay) tomorrow. Poinsettias are a great show here already. (in Panchgani for the night)

Finally, on November 13 he started his return trip by train to Bombay, but got off at **Lonavala** for a 3 day side trip (Nov 13-15, inclusive). This stop, made on a hunch, bore some significant fruit. He finally found the grasses he had been looking for with great variation. To read the details of his discovery click <u>Diary</u>.

Harlan finally made it back to Bombay on November 17, where he remained for nine days, visiting people and resting his sore feet.

Fourth India collecting trip (Nov. 26 – Dec. 3, 1960) (Return to start of India Phase)

Then on November 26 he set out to investigate the Abu Road / Baroda area and spent a week in the field, visiting Ahmedabad (Nov. 26), Abu Road (Nov. 27-29) and Baroda (Nov. 30-Dec.1), collecting his grasses. We shall call this ICT # 4. Map of ICT # 4. He returned to Bombay for one day active rest on December 3.

Fifth India collecting trip (Dec. 4 – 8, 1960) (Return to start of India Phase)

Harlan set out again on December 4 on his fifth and final India collection trip - to the <u>Nasik Road</u> area by way of <u>Igatguri</u>. This route proved to be not much more successful than Abu Road. He returned to Bombay on December 8 and three days later, after conferring with several people, packing up his seed collections, along with some vegetable seeds, and mailing them off, he flew out of Bombay to Aden on December 11, 1960. (<u>Transcript of India phase</u>)

Aden & Crete: Dec. 12 – 13, 1960 (2 days)

Harlan's stop in Aden was to rest a little and do some shopping. Having bought a new camera and binoculars he had to lighten his load again. He departed for Ethiopia on December 14, 1960.

Ethiopia: **Dec. 14 – Jan. 26, 1961 (42 days)** (Trans) (Return to Chapter 8)

BACKGROUND

Jack Harlan's experience in Ethiopia was substantially different from that of any other country he has visited, thus far. In this, his first trip to Ethiopia, he never found himself alone, but was always in the company of other Americans. The relationship Harlan had with the nation of Ethiopia is a very complex and intriguing one. Ethiopia could boast that it was almost the only African nation to never be made a colony by the Europeans, the other country being Liberia in West Africa. The Kingdom of Italy as part of the "Scramble for Africa" ended up with Libya, Eritrea and Somaliland as composing outposts of the Kingdom of Italy. Italy tried several times to conquer Ethiopia but failed. In 1925 a 41 year old Agronomist and head of the U. S. Barley Program, Harry V. Harlan, Jack Harlan's father, ventured into Ethiopia (Abyssinia) looking for verities of cultivated barley, as the crop seemed to have ancient roots there. While there he met the young Prince Reagent, Ras Tafari (the future Haile Selassie), who was interested in getting some help in modernizing his country. Harlan's expedition was written up in the National Geographic magazine in June, 1925. A few years later Harry's friend, Nikolai I. Vavilov, head of the Russian Agriculture Industry, came to the Ethiopia, also looking for ancient varieties of various plants. Then came World War II and Italy once again tried to conquer Ethiopia and again Italy failed. After the war America, finding herself a world leader, sought to exert her influence in the Horn of Africa. US President Harry S. Truman, in his January 20, 1949 inaugural address outlined his foreign relations programs with four points. The fourth point, which became known as "Point Four", had to do with America helping "developing countries". He got this idea from Dr. Bennett of Oklahoma A & M College, one year before Jack Harlan came to work there.

If you have not done so in Chapter 8, please follow the link below and read the following quote from an article entitled: "WHEN THE EMPEROR CAME TO STILLWATER" by Theodore M. Vestal, Professor of Political Science, Oklahoma State University, 2001.

This was the context of the situation when Jack Harlan landed in Ethiopia late in 1960. Ethiopia had successfully repulsed the unwanted suitor, Italy, in favor of the less aggressive America, who came with a plan to help her improve her agricultural systems¹⁸. Jack Harlan's father, Harry V. Harlan had already been to Ethiopia in 1923 collecting seeds from this rich land. Harry had met the Ras Tifari on his trip in 1923 and Jack had met him when he came to Stillwater in 1954, 31 years later. Oklahoma A & M College had established a working relationship with the "...Jimma Agricultural Technical School (JATS) to prepare students for university-level work ... and the Imperial Ethiopian College of Agriculture and Mechanical

¹⁸ Haile Selassie was truly a forgiving man. Mussolini invaded his country in 1935 and America did nothing to help him. Italy held Ethiopia, Somalia and *Eritrea* (i.e. Italian East Africa) in bondage as America looked elsewhere. It was only when Mussolini was defeated in Europe was his death grasp loosened in Africa. It was the British who finally liberated Ethiopia; however *Selassie*, seeing the success of America, went to her for help in building up his university system.

Arts to be built at Alemaya, near Harar in western Ethiopia."¹⁹ So, when Jack Harlan set foot on Ethiopian soil for the first time, there were already relationships established with people on the ground there. There was already a group of people he knew, chief of whom was Hugh Rouk, a faculty member of Oklahoma A & M College, until he moved with his wife to Ethiopia in the early 1950's. He had been the co-director of the Jimma Agricultural Technical School from 1952 through 1958. In 1960 he became Director of Research at the Alemaya College. He would eventually receive the Order of the Ethiopian Star from the Emperor of Ethiopia for his work in improving the nation's coffee industry.²⁰ Hugh Rouk was one of the most senior of the Americans in Ethiopia and had his office in Addis Ababa. The actual director of the College was Dr. Clyde R. Kindell, who, like the other Oklahoma faculty members, had a house on campus.

Other people Harlan would meet in Ethiopia were:

Mr. Bonnie Nicholson, the chief representative for the OSU contract.

Bobby Stewart, Head Dept. of Plant Sciences Imperial Ethiopian College of Agricultural and Mechanical Arts, Dire Dawa

Merle Niehous: one of the scientific researchers at the college, graduated from OSU. He wrote some outstanding descriptions of the college campus in Ethiopia which are used in the current volume.

Others will be mentioned as they appear in the record.

A FUNNY THING HAPPENED ON THE WAY TO ADDIS.

Jack Harlan's itinerary scheduled him to fly from Aden to Djibouti, still a part of French Somaliland, on December 14, 1960, for a short stopover; then fly that same day to Addis Ababa, the capital of Ethiopia. This would be Jack's first time to set foot in Ethiopia and a lot had changed in this ancient country since his father, Harry V. Harlan, had ventured there 37 years previously. When the plane landed in Djibouti the passengers were told that there was no plane going to Addis that day. The passengers were then escorted to a nearby hotel for lunch and there they waited. As the afternoon dragged on Harlan noticed cargo planes landing and unloading Kat and taking off again. Kat, or Chat, or Qat was a mild narcotic leaf that is chewed throughout the Middle East. Some devout Muslims call it the "leaf of Allah", because they chew it when they stay up late at night studying the Koran. Jack found out that the empty planes were flying to Dire Dawa in Ethiopia and he figured that if he could at least get into Ethiopia he would be one step closer to his goal, so he arranged to board the next Chat plane that took off. At this point in his life Jack Harlan was not noted for his patience, but he was ever driven towards his goal. He soon found himself at the Dire Dawa airport, but there were no flights to Addis Ababa. This was a bit strange, until he started hearing about something that was happening in Addis. People were talking about a coup in

¹⁹ "When the Emperor Came to Stillwater", by Theodore M. Vestal, 2001 and "OSU in Ethiopia Terminal Report 1952-68", App F"

^{20 &}quot;When the Emperor Came to Stillwater", by Theodore M. Vestal, 2001 and "OSU in Ethiopia Terminal Report 1952-68", App F"

the capital. He found out that the Emperor <u>Haile Selassie</u> had been on a state visit to Brazil and, while he was out of the country, some generals had seized power.

Without the leadership of Haile Selassie this leg of his whole trip could be in jeopardy. The Emperor had been a good friend to the United States for many years and the US had joined with Ethiopia to improve their agriculture. Jack Harlan had been briefed on the joint agricultural venture near Dire Dawa. The idea of this, as the first trial of the Point Four Program, was to help developing countries improve their agriculture by establishing colleges, but not only teaching colleges, scientific colleges in these countries - colleges that could train bright young people the fine arts of science. The new colleges would be equipped to eventually grant Masters and PhD degrees to qualified students, who would then conduct research in their own countries and train others in agricultural sciences and engineering disciplines. In this way intimate and lasting bonds could be forged between the US and developing countries and this would be a great tool in waging the "cold war" that was quickly forming with the Soviet Union. Point Four was a win-win on all sides, except for the Soviets, and received enthusiastic funding from the US Congress. Thus, Oklahoma A & M College had become the first US school to participate in "Point Four" and had sent a plane load of engineers and contractors to construct, from the ground up, an A & M College in Ethiopia. Haile Selassie, himself, had picked the spot for the college. It was about 30 miles from Dire Dawa, and only 15 miles from the village of Harar, but it almost always was associated with Dire Dawa and not Harar, a significant Islamic city. The campus buildings had been constructed according to state-of-the-art US standards. The school buildings were two and three stories high and the faculty housing consisted of single story, brick, slab-foundation American-type houses; so that the US donated faculty could feel at home.

So, Jack Harlan, although not scheduled to start his trip to Ethiopia at Dire Dawa, thought that if he could just get to Dire Dawa he might be able to find some people who could help him get things going in Ethiopia. See ground path²¹ and a video of a flight from Djibouti to Dire Dawa then ground trip to Harar and back. Back to Jack Harlan's story: having landed at the Dire Dawa airport and having found out that there was a coup in progress and he was, more or less, stranded there for awhile, he sought to ask around and see what he could turn up. The coup in Addis could just take care of itself. The first contact he made, which was the next day, December 16, was with one of his fellow passengers, a Mr. R. G. Haddad, a Lebanese man who worked for the National Cash Resister Company. His office was in Aden and he was at Dire Dawa on business. One of the first things Harlan asked him was about the project a college – in Dire Dawa that was connected with the US. Haddad wasn't very familiar with it; however, they went into town together to see what was going on and Haddad found an Italian man they had met the night before in the bar at the airport, who spoke French. Jack asked him, in French, if he knew anything about the college and the man said that he was very familiar with the Imperial Ethiopian College of Agriculture and Mechanical Arts, also known as Alemaya College. He had done some business with them. So, having confirmed in his own mind that the college was, in fact, still in place, Harlan sought ways to make contact with someone there. Moving very deliberately, step by step and being confident that he was on the right track, Harlan decided that the best way to make contact was to just

²¹ Google Maps does not have an air option for the trip from Djibouti to Dire Dawa, but this map will show you their relationship.

go there and see what he could find. Once again, Jack Harlan was showing himself to be a very assertive guest in this strange and foreign land, where he does not know the language; but off he goes.

However, before starting off for the college, Harlan decided that he should try to take care of some red tape first. I will put it in his concise words. But first we need to explain that there were a couple of Germans stranded at the Dire Dawa airport who found a way to get a train back to Djibouti and Jack was going to look into that possibility, just in case he needed to get out of the country quickly because of the coup. Here now are his notes on Dec. 16, 1960: "At 9:30 went to immigration, but he said if I got an exit visa I'd have to use it. I decided to go to the college first before making a decision since the next train wasn't until Sunday anyway. (This morning's train left promptly at 8:00 & we saw the Germans off.) But it seems I need a tourist card & of course, money. I needed a photo for the card & the bank manager wasn't in, so back to hotel, got photo, back to immigration where it took over 1 hour to fill out a little form & then the Capt. wasn't there to stamp it. Went back to bank & I changed \$100. Lunch at hotel & back for tourist card but nobody there as expected. So a little before 2:00 started off in taxi (for the college). Just out of town flagged down by Frank Kubisch who had seen me leave hotel & asked 'where the hell that guy thought he was going'. So paid off taxi, went with Frank around town. Got card, saw governor, got stuff out of customs, etc. then out to college & Kendall Hilton." IN THE LEFT HAND MARGIN "Gave mine to Haddad to be sent from Djibouti – no communications" It is the belief of this author that he had given Mr. Haddad a message to try to get to Jean saying he was OK.

Harlan already knew that the president of the college was a Dr. Kendall. (This is the spelling that Dr. Harlan had in his field notes; however, the actual spelling of the name is Kindell, Clyde R. Kindell, from Oklahoma A & M where he graduated with a degree in Vocational Education. He served as president of Alemaya College from 1960-66. Upon returning to the states in 1966 he became present of Murray State College, in Tishomingo, OK, where he served for 27 years.) It is a little unclear from his notes, but it looks like Kubisch took Harlan to meet with Dr. Kindell either this day or the next, because on Dec. 16, after meeting Kubisch he writes, as we have just seen, "then out to college & Kendall Hilton" and the next day he is involved in a trip to the country with Dr. Kindell to cut a Christmas tree. It would seem that Dr. Kindell has put Harlan up in his house on campus, because on Sunday, Dec. 18 he reports going to Sunday School and then sending a wire to Jean, back in Oklahoma, by way of Kubisch who was leaving for Djibouti.

The news from Addis was scarce but seemed to indicate that the rebellion was <u>about to be crushed</u>. Nevertheless, armed guards were placed around the campus, just in case things got out of control. It is at this point that we want to hear from Merle Niehous, one of the teachers at the college. Harlan mentioned his name and in researching the book this author ran across an obituary web site for Merle Niehous, in which he made the following account of those days: "...we started posting armed guards and had an armed patrol driving around the campus at least once per hour. Nothing happened, but we learned later that local farmers who saw our armed guards decided we were getting ready to attack them so they posted guards. They did not have radios or telephones so knew nothing about the coup."²²

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²² http://merleniehaus.weebly.com/ethiopia.html

December 19 was a day of contrasts. In the morning was a birthday party for Clyde Kindell's six year old son, Gary, and in the afternoon Merle Niehous' parents arrived from Addis with news of mass killings in the streets. Harlan toured the campus with Bobby Stewart and did a little collecting. That evening, he gave a lecture to the student body and ended up at Bobby Stewart's house for drinks and much excited talk. December 20 saw more touring of the facilities with Merle and a trip to the market in Harar with Dr. Kindell where Harlan bought some seeds for his collection. Later that day they heard from Hugh Rouk in Addis. He said he was OK and would be at the college Friday.

On December 21 Harlan "Gave a lecture to Dr John Glemi's class for 2 hours, ranging from livestock marketing to human evolution." Dr. Glemi was a dairy man at the school. In the afternoon Harlan went to the market and bought some more seeds. Over the next few days he visited the dairy operations with Dr. Glemi, lectured Merle Niehous' class, went with Dr. Kindell to the market and out to the field to do some collecting. Christmas day came and gifts were exchanged. Harlan noted: "A very nice & pleasant day & too much activity to get very lonesome. I think it is my first Christmas away from home since college days."

On December 26 Harlan said good-by to the people he had met at Dire Dawa and the Alemaya College and flew with John Thomas to **Addis Ababa**. See <u>flight path</u>. They were met at the airport by Hazel Rouk, who took them to the Rouk house where they had lunch and then met Bonnie Nicholson, who had been on the college staff since 1957. Finally, Hugh Rouk came and he had a lot to say about the rebellion, which by now had been completely crushed. "Hugh took us round town & showed us the damage which was amazingly little. Crowd at the square waiting for a hanging. Back to house for supper, Scotch & talk."

Over the next three days Hugh Rouk took Harlan around Addis Ababa, and the facility at Bishoftu, later known as *Debre Zeit*, 30 miles south of Addis. On December 28 he wrote: "Back to Bishoftu & short visit on station. Variation in wheats is terrific & there should be some good marker genes. Tef & safflower grown together a lot on the slopes of the Rift Valley. Pretty good farming." On the 29th he went with the Ethiopian student Hilu to the plateau in northwest Ethiopia, about which he later wrote the comment: "The barleys here are as messy as the wheats south of Addis & lots of wild oats & the <u>Pennisetums</u> used for baskets" When they returned Harlan took Hugh and John Thomas to lunch. The next day he would depart for <u>Jimma</u> for six days.

At Jimma Harlan met more people from Oklahoma who were involved in the cooperative program. Jimma was the home of the Jimma Agricultural Technical School (JATS), equivalent to what we would call in America a "college preparatory" High School, organized to prepare students for university-level work. This was a very important part of the overall program. Bright high school age students were directed to JATS where they were prepared to be trained to do excellent scientific work in agriculture. He was met at the Jimma airport by Dick Turner and taken on a tour of the JATS facilities by faculty member, Louis Meissner. Harlan had lunch at the Turners and in the afternoon went out to the experiment farm with Ethiopian, Ato Melek, who was interested in noog and tef research. Harlan got 19 noog collections "with great variability". That evening he had dinner with Tom Seigenthaler, who had received a Masters Degree in 1954 from Oklahoma A & M College and started teaching at JATS the following year. After returning to the states in 1963, he would go on to serve as dean of Vocational

Adult Education at New Mexico Junior College in Hobbs, N.M. Harlan slept at the Meissner home guest room. He would get up and go to one of the other staff member's houses for breakfast. On Dec. 31 it was Marvin Barnum's house and on January 1, it was the Seigenthaler household. January 1 was Sunday and Jack went to church with the Barnum family and had lunch with Turnins. So, Harlan was making the rounds of everyone he could.

Nothing much happened on the second day of January but on January 3: "after breakfast in Landrover with Bob Meisner, Tom Seig, Marvin Barmun & Ethiopian student left for the highlands beyond Nada. This village looked neat & nice, the subgovernor was holding court so we are asked to stop on way back. On up into the highlands collecting mostly ornamentals, etc. Ate lunch & called on Abu Demina, an old farmer on the hilltop (elev. 2450 m) sat in his tukel²³ while his wife roasted coffee beans (can metal), ground them in mortar & made a strong brew with lots of salt in it. Looked over farm and got a fairly long plant list, although he buys his spices. The wheat looked extremely good & he said it was the best year he could remember. Returned to Nada & saw subgovernor, drank some (too) new Tala – barley beer with the *Rhamnus prinoides* for hop. Picked up hitchhiker & came back late for dinner at Lloyd Wiggins'²⁴. Hugh was there & fought the battle of Addis again."

For the next three days Harlan visited various people and places, did a little collecting and made a few comments in his notebook. To view a map of this portion of the Ethiopian adventure click <u>Map</u>. To see a transcript of the notebook click <u>Transcript</u>.

On January 6, 1961, Harlan traveled by car with some others back to Addis and stayed at the Rouk house. The next day was Ethiopian Christmas and all the Ethiopian help did not come in for work. Not much got done. Harlan was in Addis through January 14, meeting various people and visiting various sites, planning his exit from Ethiopia and the return trip to the States. He made two excursions by airplane. On January 10 he went with Hugh and probably one or two others on an airplane flight over northern Ethiopia. This was a truly fantastic trip. The next day they flew to Gondar to see the facilities there. See flight path.

On January 15 Harlan took a train back to Dire Dawa for two days and then drove with Frank Kubicek and his two boys, 'Mike' & 'Almasagan' through the rainforest to the south of Dire Dawa for 3 days, camping as they went. On the first day, January 17, the brakes went out on the pickup pulling the trailer carrying their equipment. Rather than turn back they kept going, keeping the truck in low gear. The next day they set out again and again they hit a steep grade and again the brakes failed, and Frank who was driving tried to stop the truck by driving it into a rock bank. The truck and trailer stopped, but as they stopped they slowly rolled completely over, as if in slow motion, until they came to rest with six wheels up in the air. No one was injured and immediately the crew unloaded the truck and trailer and righted them. Most of the gear was repacked into the landrover which had been coming with them and they started out again. Again the pickup lost its brakes and Frank had to run it out onto a field before it

²³ small grass hut

²⁴ Lloyd Lee Wiggins authored: "Mule Power in *Ethiopian* Agriculture", Experiment Station bulletin (Imperial Ethiopian College of Agricultural and Mechanical Arts), No 15.

came to a stop. As the day began to come to an end, they found a good place to stop and camp for the night, ate some dinner and went to bed early, grateful that no one was hurt in the repeated mishaps.

The group set out again the next day and at the bottom of the hill they came to a village and surrendered the partially wrecked pickup, the trailer and a considerable amount of the gear with the local police. They continued their journey through once-forested farm land, missing a turnoff to **Errer**. Backtracking to find the exit they, instead, found themselves camping one more time — on a ridge with a beautiful view of the valley below.

From Errer they returned to Dire Dawa the next morning and the following day Harlan flew to Addis Ababa, met with Hugh and attended a big wedding on Sunday. The next day they set off on a car trip to the north, all the way to Asmara (see <a href="mailto:

To home by way of Khartoom, Cairo, Israel, Rome & Paris: Jan. 27 – Feb. 2, 1961 (10 days)

From Asmara, Harlan said good-by to his new Ethiopian and American friends and walked onto the Airforce base, where he boarded an Air Jordan airliner and flew to Khartoum, then Cairo, where he spent the night. The next day it was on to Jerusalem where he toured around the sights in Jerusalem and then Jericho. He managed to stop by Kathleen Kennyon's excavations in Jericho; but, she had already finished her work there and moved on to Jerusalem. He had wanted to visit the "Holy Lands" for some time and how was an excellent opportunity, not only to tour Israel, but to do some collecting in this most interesting and historic country. He toured Jerusalem for two more days before heading for Beirut, staying there the nights of January 31 and February 1. On the second of February he boarded a plane in Beirut and flew back to Stillwater, Oklahoma, by way of Rome and Paris. A most extraordinary and exhausting 10-month long expedition was finished at last and finally, at last, he was with his loving wife and children. He waited a few days to get his slides developed and then had a family slide show of his expedition.

End of Expedition No. 2 Narrative (1960)