

KQ, the Serengeti and a first solar training in the bush (Nov 1993- Jan 1994)

The new car, a 1976 Toyota Land Cruiser pick-up, is okay, mostly. Its electrical system is shot and it's got a leak in the radiator (so that, if we don't dutifully fill it with fluid before each journey, the beast overheats). It had two punctures in the first two hours of the trip (both at border town Namanga), it dropped its muffler in the Serengeti (and various parts of the manifold in the western Tanzanian bush) and, yes, it's rusted through in the cab, both doors and the back gate. But what more can you expect from a hulk bought for \$3456 on a cheque that bounced. It made it there and back. Condition notwithstanding, one does get a sense of accomplishment, self-worth and responsibility, owning a car.



But that's not the reason I'm writing this, not to divulge the sad truth that I'm several metric tonnes of scrap iron rust richer. The truth is it's early December, early evening, raining pitter-patter outside in the pumpkin and pawpaw patch. I've been urban camping for a good part of the year here in my friend Ann H.'s maisonette, now I'm listening to dub music on a fine stereo system and feeling distinctively irie. It's time to spread good cheer. So I'm condensing several dozen letters into a longer lazy one and sending out an Xmas epistle in place of the ones I should have sent out over the course of a year. Merry Photocopied Christmas. Yes I. If you were to ask me what I did during this last year (and why I bought a light truck), I'd tell you about *the solar trip*. So you asked (rhetorically) and here goes.

The November trip from Nairobi to Kagera and back was the culmination of my 1993 solar circuit. Easily the most entertainment I've had in a while. The trip was made possible by a generous grant from the Commonwealth Science Council (of which neither I nor my country are members) and the result of extensive groundwork by Harold Burris, Oswald Kasaizi, Peter de Groot. And myself.

The reason for the trip was that people in a remote part of Tanzania need electricity. If you were a donor, I would get up on my soap box now, rail about the fact that although the vapid Western donor countries and (evil) World Bankers have thrown billions of dollars in soft loans for power to the people and such rubbish, still MOST of your poor so-called Third World populations still have no electricity.

Why? Well, the reason the donor countries throw money is because they can hand fat contracts to engineering companies back home and rejuvenate their own sagging economies. And the reason most of your poor so-called Third World populations don't have electricity is because they live in rural areas far from the electric grid. But let's not go blaming people, it's Xmas time, good cheer and all that (besides, if those rural people were just a little more ambitious they would have electrified already, like we did in America).

Yes I. The reason for the trip is that the people out there on the other side of Lake Victoria would like to have electric lights. And they want to get them using solar energy. So me and Daniel Kithokoi were hired to be resource people in the use of this increasingly valuable source of power, *photovoltaics*.

Our mission and the purpose of the trip was to electrify the KARADEA Solar Training Facility and to train eighteen students in the use of photovoltaic power so that --- given a panel, some lights, wires and a battery and other various electrical titbits --- they themselves could install their own systems (god forbid). That's pretty much what happened. It had required many months of preliminary administration, several prior trips to Karagwe, hellish amounts of paperwork, design of a syllabi and training material and a small fortune in phone and fax bills. The 18 trainee solar technicians were to

come from the Karagwe Development Association (KARADEA), the Uganda Rural Development and Training Association (URDT), the Olkenerei Integrated Pastoralist Survival Programme (OIPSP) and a small company called Jua Ltd based in Musoma on Lake Victoria.

The reason we had to buy the 1976 Land Cruiser pick up was that a week before the workshop's commencement, all of the solar panels were sitting in a customs warehouse at the Kilimanjaro International Airport, hundreds of miles from the training site destination. We didn't have proper documentation to get them through the country duty-free --- that would have required a trip to Dar es Salaam which was not in the budget. So it would require personal attention to get them out of customs and a rolling hulk to get them across the Serengeti to western Tanzania in the space of a few days.



Karagwe is located in Kagera District, the tongue of Tanzania sandwiched between Rwanda to the west and Lake Victoria to the East with Uganda sitting northerly on top. It is historical because Idi Amin annexed its northernmost section back in the late seventies, provoking a frenzied military response from Nyerere and the Tanzanian army that led to Amin's downfall. Now Uganda and Tanzania are buddy countries, having embarked on a cooperative effort to run power lines from Kampala to Kagera. The transmission lines are erected, although unelectrified, and Uganda has promised juice though she doesn't have spare kilowatts to pump into them. Even without juice, it is a good example of regional cooperation --- at least that's what a diplomat says --- and it was a fat contract for the Italian engineering firm that built the impotent transmission towers. But I was telling you about Karagwe.

Karagwe is located in Kagera District, the tongue of Tanzania sandwiched between Rwanda to the west and Lake Victoria to the East with Uganda sitting northerly on top. Atop a north/south line of ridges, it commands a view of Rwanda to the west, and grasslands and foothills running up to Lake Victoria. In the rainy season sunshine (it has been raining there this year), a road snakes along the ridge through leafy banana and coffee holdings. Getting there is a hassle. From Nairobi you can fly first to Entebbe, Uganda, and cross the southern border at Mtukula, or you can take the red-eye bus through Migori/Musoma to Mwanza, catch the ferry across the lake to Bukoba and then drive three hours to Karagwe.

Since we had to stop over at Arusha (within sight of Mt. Meru and Mt Kilimanjaro) to pick up Dr. Peter de Groot (Project Funding Officer), the Maasai trainees from OIPSP and the solar equipment, we had to alter our route. From Arusha, the best way to get to Mwanza is to drive due west, cut across the rim of the Ngorongoro Crater and then make like a bandit across the Serengeti Plains. We had no choice.



From Nairobi, Daniel Kithokoi and I were traveling with Frank Jackson, newly arrived to East Africa as an Irish Solar Volunteer soon to be stationed at KARADEA. We left Nairobi on a cool and rainy Friday morning, unsure if this old green Land Cruiser was going to make it. Having crossed the desiccating basin between the Athi Plains and Arusha with two punctures and god speed, we did cross the border and arrive in Arusha on Day One as planned. There, the rains were late and dust was blowing. In Arusha, we invested in a new spare tire, borrowed a jack from Martin and procured a plastic 20

litre jerry can for carrying petrol. We met Peter at the Mt. Meru Hotel and the 3 OIPSP Maasai at their guest house.

After 5 days of haggling with airport customs people, OIPSP's Executive Secretary Martin Saning'o had buckled --- shelling out 5% of the solar equipment value that was demanded by the customs agent for the grant equipment that was rightfully tax exempt. Customs officers in Tanzania are a patient and rigid lot when it comes to releasing incarcerated property, especially when they know you want it badly and are likely to *toa kitu kidogo* (i.e. give something small) for it. For the right price, there is flexibility. So, there the equipment was, in back of Saning'o's Hilux, thanks to something small passed between friends and it was worth several beers to see the crates from the veranda of the Mt. Meru Hotel.



Next morning, we were off on the Second Day of the trip, three comfortable in the cab, three sprawled in the pick-up bed on a foam mattress (scavenged from Ann), packaged in amongst cartons, articles and belongings, with angle irons and plastic trunking sticking out from the back like jet fins. The Cruiser has a cage over the bed with racks for carrying stuff (our luggage and 300kg of PV modules, batteries and equipment), and a neat canvas cover that folds up in sections to block out rain and dust, enabling scenery viewing from inside. With a full tank and a full jerry can of petrol, we trucked westward out of Arusha (cruising speed 60 kph) on a tarmac road that led through whole realms of gully erosion and dust-stricken Meru farmland.

As were the Dakota Sioux in an earlier era, the Maasai in Tanzania are being robbed of their land. Since cattle grazing is not deemed profitable or productive by the Tanzanian power elite, the Maasai have been forced by "development-oriented" policy to give up "fertile" tracts of their land to speculating agriculturalists intent on harvesting wheat with Canadian aid combines. Much land has already been stolen, cleared, plowed, planted --- and after a dry year or two the top soil is washed away leaving the aforementioned dust and gullies. But I digress; this is supposed to be a happy Xmas letter. [What a spectacle. The dust is awesome, the gullies incredible].

We turned off the tarmac onto a dirt road that leads to the base of a several thousand-foot Rift Valley escarpment. Until the rise, all is dry bush, hungry goats and desolation. At the base of the escarpment, the earth road moistens into a broad forested river valley and you arrive at a bustling town called Mtu wa Mbuu, the River of Mosquitoes. Quite a road stop after all that dry savannah; its been raining in this oasis of banana, mango and pawpaw trees. Maasai sell beads to tourists on their way to the Crater, dukas sell hardtack supplies: food, blankets, lanterns and mosquito nets (we bought 3). We had lunch, filled up at the last chance BP station's hand pump and began our ascent of the escarpment to the Crater's rim.

You may think that, just because we were climbing up into the most spectacular game areas in East Africa, we would let that slow us down. We would take time off for game-viewing or safari-ing or riding in hot air balloons or other such rot. Not a chance. It was Saturday and we were determined to make Karagwe by Monday, the scheduled start of the training programme, and that was all we had on our minds. We were disenchanted that we had to pay \$75 for the privilege of traveling through Ngorongoro Game Park, even though we had no intention of game viewing and even though the park offered the only expedient route between Arusha and Mwanza. The rangers made it very clear that we had to pay, and Peter did, from the CSC expense account.

The road takes you right up the side of the Crater through lush montane camphor forest to the rim where, given time for sight-seeing, there's a panoramic view of the dinosaur-sized crater. On the

floor, toy herds of elephants, wildebeest, buffalo and eland graze in binocular fields. But we had little time, as we had to make it to the Serengeti gate by 7PM. They are strict about not allowing tourists to drive in the park at night. It's dangerous, says a ranger, "and you might disturb animals sleeping on the road".



By the way, the rain is heavy now in Nairobi, city in the sun, and it seems as if the season is getting serious, even if it is six weeks late. Yangu-yangu say the frogs outside in all seriousness, and the jacarandas blush light purple.

With Dave, we recorded 4 more songs this year. Gitonga, Muthoni, Moja Mbili Tatu, and a third remake of the as yet unreleased Wanjiku. They're better. Mostly because of Otieno's improved arrangements and creative production, use of talented musicians --- and perhaps better vocal performance ("...my God, you are actually singing" says one critic I didn't pay). Our cassette, with these 4 songs and 4 others from the 92 Mushroom Studio sessions will come out in March. The song that is raising the most attention is 1-2-3 (Set Yourself Free), a cross-pollination of rock and Congolese guitar. It kicks off tickling with a sweet female Swahili vocal atop Zairian rhythm, cuts abruptly to rock for several verses before climaxing with Congolese dombolo, Lingala chanting and a tight mean guitar. (I had to put that in as an advertisement).



Meanwhile, back in Tanzania in early November, our party reached the Serengeti. From the edge of the Ngorongoro Crater, the road dropped steeply to the west, crossed the Olduvai Gorge, flattening onto the treeless Serengeti short grass plains. At the Lion Hill Gate we were charged another \$75 (against our will) to be allowed to travel through. It was deep twilight as we dragged a column of whirling dust behind us, this the centre of the huge Ngorongoro Conservation Area. Our Maasai guides said keep going, law be damned. So, in the dissipating twilight, we saw the odd gazelle and hyena, but no huge November herds of wildebeest and no signs of rain. It got dark fast.

Peter was now driving a race against time and the law. My navigation estimates that had put us in Mwanza by 8PM had been miserably optimistic (even if Saning'o agreed with them in Arusha). At 8PM, we were on the eastern side of the Serengeti, with at least 4 hours to drive before reaching the western gate on Lake Victoria. And several more hours after that to Mwanza. The rangers at the gate had suggested a short cut so at least, we thought, we could cut off an hour.

Either Peter or I lost the muffler and exhaust manifold (neither of us noticed). Peter roared through the night, and the short grass gave way to a more hilly and watered clime (there are 8 distinct zones in the park). Where there had been recent rain, roadside puddles sprayed mud onto the windscreen. A million stars wasted time in the sky, I dozed.

We stopped at the plush Seronera Lodge to discretely refuel from the jerry can and, as a staff was chastising a group that had returned too late from a nighttime drive, we escaped quietly out the driveway. In the wooded eastern part of the park there were large herds whose eyes caught and reflected our headlights as floating ruby formations. You do not know evil until, on a moonless night, you run into a roadblock herd of a hundred Cape buffalo, all snorting, staring through leering crimson beads underneath overcast horns, stamping impatiently. But there was sweet stuff too; we disturbed a waddling hippo family complete with mother, yearling and newborn calf. We were

watched by standing hyenas and jackals. We chased giraffes, a herd of scores all graceful night-running under fever trees. In the incandescent headlight beams, hundreds of wildebeest and hartebeest romped with single-file zebras. Dik diks, eland and waterbuck stood stunned.

Presently, rangers in a Toyota Hilux with Government of Tanzanian plates flagged us down. Cross, they wanted to know why we were driving in the park at night. We sheepishly told them that we had engine troubles and that we were on our way out. Headed to an official Commonwealth Science Council Solar Training. Saning'o helped us explain. Yes, we knew it was prohibited, but we had not expected to be in the park after sunset. As we were now over halfway through, they might as well let us make it to Mwanza. They checked our papers. One of them was from Simanjiro, and he spoke directly with Martin in Maa. Once they were sure we knew we were in the wrong, they let us pass. Onward we rode.



Then there was a several hour period during which we were totally without bearings, under strange southern hemisphere constellations on a road that had promised to lead us to a tented camp but petered out into a swamp (barely awake at that point, I was bewitched by unblinking devil-red eyes of lesser mammals). We backtracked, made our way through a thorn tree forest, to a T-junction and, hopefully, the way out. It was, but it wasn't. In the thickest part of the forest --- as in all Grimm fairy tales --- we came to a little house and a gate. Of course, a gate across the road in the Serengeti means nothing because there is no way in hell you can fence in the whole thing. But we stopped as a matter of courtesy.

Out came the gatekeeper, rudely roused from deep sleep by our muffler-less beast, in an overcoat and underwear, carrying a flash light and a pop gun. Not pleased, and apprehensive by our Kenyan plates. Pointing the old bolt-action rifle at us, he directed us in Swahili to "Turn off your motor, switch off your lights". Which we did. He closely examined the ID's of all six of us in the vehicle and then inspected our luggage.

This was followed by a 45 minute dialogue in Swahili, broken English and sign language between Peter, Saning'o, myself and the guard. He maintained that we had broken the law by driving in the park after dark and therefore he could not open the gate to let us out. We agreed. Saning'o suggested that the rules applied *inside* the park and not outside. So if he let us out, we would no longer be breaking the law. He held his ground., We were still inside the park, under his jurisdiction, and he could not let us out. We would have to sleep in the car until the park gates were open in the morning.

Then I made the case that there was urgency in our mission and that we were with a distinguished officer of the Commonwealth Science Council. We had to report in Mwanza by the morning. Besides, we could not all sleep inside the vehicle. "Did he have room in his cottage to put us up?". If we had to sleep outside we were at risk of being attacked by hyenas or lions. And, we had been told to use this route as a way out.

"Who authorized your passage through this gate?" The guard wanted to know. At this point Saning'o took over and tilted the truth a bit. He referred to the rangers in the Hilux, to whom the guard reported. The guard asked for and got a description of the head ranger. He thought for a moment. Then he asked for our assurance that, given passage, we would not disturb any animals sleeping on the road. We gave it. He opened the gate and waved us through.

For the next 4 hours we drove and saw no animals. Only a few roadkill cats, much later. The cruiser bashed its way along a rutted track until we got to a tarmac that ran south along the lake, with some of the most malicious potholes in Tanzania. We rolled into a motel on the outskirts of Mwanza at 4AM. When we woke up Sunday afternoon, we lazed about town and purchased tickets for the overnight ferry to Bukoba. Shortly after dawn the next day, and on the other side of Lake Victoria, our Toyota was unloaded at the pier. It limped into town and, while five of us had a long breakfast, Daniel spent the morning having a new muffler and manifold put on, changing the air filters and cleaning mud out of the carburetor. We made it to Karagwe at dusk Monday and we able to begin our three-week solar training programme.



Uncertainty. I love it. God. There is a certain sense in uncertainty, and like the trip through the Serengeti it's so crazy to try to know where you're going or if the things you are doing matter. The work is great, but I'm a weary traveler on the road to a solar world now, and much less convinced about the change it may bring in Africa, much more cynical about costs and about whether an imported expensive technology can be the answer or even part of it. But on the other hand maybe it will. Stranger things have happened and this laptop is powered by the sun.