LESLIE JOHN AUDUS, MA, PhD, ScD

World War 2 Experiences as a Prisoner-of-War in the Far East

Interviewed by

Charles G. Roland, MD

13 August 1986

Oral History Archives

Hannah Chair for the History of Medicine

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Ex-Prisoner-of-War Questionnaire

Full name: LESLIE JOHN AUDUS

Birthplace & date: 9 Dec 1911, ISLEHAM, CAMBRIDGESHIRE

Present address:

Street 38 BELMONT LANE Apt.___

City STANMORE Prov. MIDDLESEX

Postal code (Zip) HA7 2PT Country ENGLAND

Telephone (home) 954-1172 (work)_________ Area code (01)

Service number: 84180 7817 POW

Date of enlistment: August, 1940

Name of Regiment or Unit, Company, etc.: RAFVR

Date & place captured: 8 March 1942, Garoet, Java

Rank at time of capture: Flt. Lt. (Acting)

Wounded at time of capture: Yes ✓ No_____ Shrapnel in leg

Date & place released: Batavia, ~~Oct.~~ Sept., 1945

~~Would you give me permission to examine your service record (in government files) in order to obtain additional information (having to do with exact dates, etc.), for my research?~~

~~Yes______ No______~~

signed:________________________

Please return to:

C. G. Roland, M.D.
3N10-HSC, McMaster University
Hamilton, Ontario L8N 3Z5
Canada (416) 525-9140 ext. 2751

Charles G. Roland, MD:

Well, Professor Audus, perhaps you'd begin, as I've asked, by just telling me a bit about your early years.

Leslie John Audus, PhD:

Well, I went to the University of Cambridge in 1929, and took a BA, an MA, and then, after three years, a PhD, after research in plant physiology. Then I was very fortunate in getting one of the few jobs which were then going, at the University College of South Wales and Monmouthshire, in Cardiff. I was a lecturer in plant physiology and I stayed there until the war started.

Like everybody else, I felt I ought to be doing my bit rather than just teaching, and so I wrote to one of my old tutors, who had been a pioneer of camouflage in the First World War. In fact, he'd got some kind of decoration for it, and he'd gone back into the RAF and so I wrote to him saying, "Look, I have a background training rather like your own. What about getting me into the RAF to do some camouflage?" He wrote back saying, "Nothing doing, old chap. I'm afraid camouflage isn't very active these days, but I've put your name forward."

About three months after that, I was asked to go to the Air Ministry to be interviewed, and they discovered that I'd taken physics in my degree. So they said, "Well, would you like to come in to the technical side of the air force, on something which is very very secret at the moment, but in which I'm sure your training will be useful." In fact, that's the way I got into radar.

I think it was summer, around August time, I went to an RAF camp at Yatesbury in Wiltshire and had there -- I've forgotten how many months of training. Three months, wasn't it?

Mrs. Audus:

Yes, it was.

L.J.A.:

Three months being trained on the technical side of radar, or Radio Location, as it was called in those days. At the end of that time I was sent up to Scotland, to Aberdeen, to get practice in the field, as it were. I had a few months up there, and then was posted with a unit overseas at the beginning of 1941, to Singapore. I was the commanding officer of one of four radar units that were sent out to Singapore for the defense of Singapore.

C.G.R.:

These were about how large? Thirty, did you say?

L.J.A.:

The units were, I think, something about 30 or 40 men. There were about ten or a dozen operators; there were about ten or a dozen mechanics, electronics mechanics; and then the rest of the staff, a couple of cooks, a couple of policemen, a driver, and so on.

Then we spent quite a lot of time kicking our heels in Singapore before they realized who we were. Subsequently I moved out with my unit onto the mainland of Johore, on the southwest corner of Johore, on the top of a hill where our unit was installed. We got operational and, of course, we were only operational for a week or so when the Japanese were coming down

the mainland so rapidly that we were hauled back. We were hauled out. I, and my unit, and most of the other radar units in Singapore, were evacuated from Singapore and I left, I think it was either the day before or the actual day Singapore capitulated. Just got out in time.

C.G.R.:

About the 14th or 15th of February.

L.J.A.:

Something like that. Yes. Again, I've not kept a diary, so I don't remember precisely when, but it was only a few days, at most, before the capitulation. [I have unearthed a diary and actually we got away on 9 February 1942.]

We had a bit of trouble on the way down there [to Java], because we got bombed in the Banka Straits and, fortunately, survived the bombing, although many ships didn't. I got some splinters in my leg and we limped down to Batavia and I went into hospital for a couple of days. Came out and joined my unit again, or at least joined the collected units, because they were all there now.

C.G.R.:

I should ask, what was your unit? What was its designation?

L.J.A.:

It was called 512-COL. 512-COL. C-O-L was Chain Overseas Low. This was a radar unit which had a very low scanning angle, so it could pick up airplanes coming over the horizon, whereas the much bigger stations could only pick them up if they were at a great height at a great distance. It was a new development

using much higher frequencies, and we had a range of somewhere about 100 miles.

Anyhow, we got out. Let me see, where had I gotten to?

C.G.R.:

Well, you were out of hospital in Batavia.

L.J.A.:

I went out of hospital and joined my unit, and the units tried to establish themselves on Java, but within, again, another three or four weeks, the Japanese had landed on Java and again we had to abandon these temporarily fixed-up stations.

We tried to get down to a place called Tjilatjap, to be taken out to Australia, because we, being such a very secret group (of course, the Japanese didn't know anything about radar in those days), being a secret group of this kind, they tried to get us out first, or fairly early on, but when we got down there we found that the last ship had gone. So that was what took us back to Garoet.

We went into the bag. About three weeks in Tasikmalaya. The commander of all the radar units in the Far East, a wing commander, Wing Commander Cave was his name, he was able to keep all the radar personnel together in one group. I don't know quite how many there were. I think it was something of the order of a couple of hundred or more. In some way, I don't quite know how, he managed to keep them all together, so that when we were sent off from Tasikmalaya to the next camp, we were all together. He wanted to keep us under his eye.

The next camp was Madioen. M-a-d-i-o-e-n. We stayed there, I suppose, about three months, packing up lathes, because it was

the main maintenance aerodrome for the Dutch airlines [KLM]. The workshops were filled with lathes and all kinds of equipment. What we were doing, we were dismantling all these lathes and packing them up, and the Japanese were presumably taking them back to Japan.

Then, after that time, we moved to Surabaya, and finally, in Surabaya, at the beginning of April '42 -- what am I talking about? Beginning of April '43.

C.G.R.:

April 1943. Yes.

L.J.A.:

Beginning of April '43, we were all put on a number of small troop ships -- well no they weren't. They were cargo ships, which had staging in the holds for the troops, for the prisoners. We were taken down to the islands of Amboina. In the Amboina region. The Moluccas.

C.G.R.:

Perhaps before we get into that I'll just ask a question or two. How had captivity been, up until that stage?

L.J.A.:

Up until that stage, captivity had been quite reasonably tolerable. In the early days, those first three weeks or so at Tasikmalaya, we scarcely saw the Japs. We were left entirely on our own, <u>except</u> for a few individuals. For instance, one of the wing commanders, who was in charge of one of the groups, was told to do something or other. I've forgotten exactly now (it's such a long time ago) what he was told to do. Told all his troops

were to do something for the Japanese, and he refused. So they took him out and shot him. Also during that period, one or two prisoners did escape and were caught, and they were also executed, as far as I know. I don't know from my own personal experience, but this is the story that went around. Certainly the wing commander was executed for disobeying Japanese orders. But otherwise, we were left entirely on our own.

We had access, unofficial I suppose, to a small market which the natives brought up outside the wire, and we could buy things through the wire. We slept in large hangars. I still had a camp bed with me. I had a collection of gramophone records, and a gramophone, and a whole lot of books; a huge great trunk of things. So we were relatively comfortable. Mind you, when we went to the next stop, at Madioen, a lot of this had to be jettisoned, for the simple reason that we could only take what we could carry. So a lot of stuff was left behind. I did in fact still manage to take my gramophone records, although no gramophone. Now those gramophone records -- well, perhaps I might tell you about Madioen.

In Madioen, too, we had a fairly easy time. We were looked after by just a handful of guards with a sergeant-major in charge. There was no officer about at all. This sergeant-major got quite pally. In fact, he insisted on having photographs of the whole of the group that he was in charge of. The whole of the prisoner group. I had a camera still, and this sergeant-major went down to the little village, bought me some films, came back and grouped everybody, first all the officers, then the senior NCOs, then the next NCOs, then the corporals, then the

others, in groups of about, I suppose, 15 or 20. I took them all. He took the film down to the village, had it developed, and that was it. He kept the prints himself, but he let me keep the negatives to compensate for the camera. So I ended up by not having the camera but having the negatives of all the groups. I've still got the negatives. Of course, I've made prints of them since. I've got all the prints and developed them out about that size, about postcard size.

Every day, or every other day, we were marched down in groups, not all at once, because it wasn't possible, but in groups of about 20, I suppose, we were marched down, not to the village but to some houses nearby, where there were a number of little bathrooms. Now, do you know the kind of bathroom that exists out there in Java?

C.G.R.:

Well, I think so, but please tell me.

L.J.A.:

It's just a little square cubicle, completely bricked in, probably with a little louvered window for ventilation and a huge great tank in the corner, full of cold water, and a dipper, which is a little pail with a wooden handle nailed across the middle. You take off all your clothes, you see, and you stand there on the sloping cement floor. You just tip the water over yourself. It was very refreshing indeed. You soap yourself down, of course. As the facilities were available, we were taken down in groups of about 20 to visit the bathroom, to bathe, which of course was a great luxury.

We were also allowed to buy fruit from natives, who came to the gate, under the supervision, of course, of the soldiers. I can't remember, at that stage, whether the Japanese had started giving us token money. I don't think they had, but I can't remember that. Somebody else might remember. I can't remember. But still we had some money so that we could buy, and of course food was very, very cheap, so we could buy fruit.

I'm trying to remember what kind of food we had there. Of course, rice, rice, rice, rice, all the time, but I can't remember whether we had any animal protein at all. I think we must have had a little. But my memory's completely blank on that count. We had eggs of course. We could get eggs. So there's the animal protein.

One really interesting incident, which will interest you, I know -- we had with us a doctor, a doctor called Tierney. An absolutely crazy but very very likable Irishman, from Cork. A bachelor. Oh, he was just one of those crazy likable chaps. Anyhow, very sensible and absolutely devoted to medicine. There's a long story I could tell you afterwards about that, about what happened after the war, but it's not relevant to this particular situation. The situation which arose was, there was a warrant officer, or he might have been a staff-sergeant, I can't remember. But he was a senior NCO in the air force, who had very advanced -- will it be tertiary malaria?

C.G.R.:

Tertian.

L.J.A.:

Tertian malaria. Sorry. Tertian malaria. He had an

attack, and his temperature went up and up and up and up, and of course we had no quinine and had nothing to combat it with at all. Seeing there was no Japanese above the sergeant-major, there was no way at all of getting medicine. So what did Dr. Tierney do? He took this chap by the scruff of the neck and plunged him in a tub of cold water and held him there. He said, "It'll either kill him or it'll cure him. If his heart will stand it, it'll cure him." Of course, his temperature came down and he recovered. As far as I am aware, he survived. I don't know, because we didn't see him after we got to Surabaya. But that was the kind of eccentric cure that one had to employ. As I say, Dr. Tierney would do it.

Then, as I say, after we'd cleared away all these lathes and other equipment from Madioen, we were all taken down to Surabaya. There again, conditions were relatively easy. I personally never went onto a working party. I never did anything at all in the camp, but just spent my days doing what I liked. The food was relatively good. Relatively good. They used to bring in quite regularly, perhaps twice a week, meat, sometimes fresh, sometimes a meat called deng-deng, which -- have you heard of deng-deng?

C.G.R.:

No.

L.J.A.:

That's the Malayan name for it. D-e-n-g - d-e-n-g. It is in fact water buffalo meat, which has been soaked in molasses until it's like a piece of leather. That preserves it, and then of course when you want to eat it, you soak it out thoroughly,

and chop it up in little bits, and you can either fry it in coconut oil with rice, or you can boil it. It takes a lot of chewing, but it is quite tasty and, of course, nutritious.

C.G.R.:

Sort of beef jerky idea, is it?

L.J.A.:

That's right. That's right.

Also eggs and fruit were available, not quite so freely, perhaps, as in Madioen, where you could just go and buy it outside the gate, but still it used to be brought in to the camp shop. There was a camp shop run by the Dutch (because this camp was mostly Dutch when we arrived, although I think towards the end, the English were as many as the Dutch). Also, in the first month or so in that camp, [on one occasion only] the Japanese actually allowed women, who were then not interned, women and children, to come in and visit us and visit their husbands who were in the camp. It was quite a festive occasion! The women brought us in little tidbits and so on. But that stopped very quickly because there was a change of commander and he thought the prisoners were being treated much too leniently, and the working parties were stepped up and there were no more visits from the women.

Sanitation was not good. By the way, in Madioen, the sanitation was just slit trenches, but out in the fields, quite a way from the huts, which were brick, permanent huts, around the big hangars. The men lived in the hangars. We, the officers, were in what had been the offices. Therefore there were no problems from that point of view.

In the camp in Surabaya, the camp had been one of the annual fairgrounds, called Jaarmarkt, and it had been an annual fairground, an annual native arts and crafts exhibition ground, if you like. The Japanese there had installed bore holes; at least, I don't know that this was done by the Japanese, I presumed they had. There again, I don't know. Maybe the Dutch had done it when they were first incarcerated. But anyhow, there was a series in two or three places in the camp, a series of bore holes, with great round concrete slabs on the top, with a little hole, and places to place your feet. They, too, were relatively sanitary. Being inside the camp, of course, they had to be. So we had only a little trouble from dysentery in that camp. There were one or two cases of dysentery towards the end, before we came away. [NB: It was these cases that caused the tragic epidemics later in the Moluccas.]

The main trouble there was -- I think as you have gathered from my report -- the main trouble there were deficiency syndromes of various kinds. All the usual: beriberi, pellagra, et cetera symptoms, plus the eye trouble, which started to flare up. It was at that stage, about I suppose, two or three months before the Japanese moved us, that Doc Philps [Dr. Richard Philps, RAFVR, HCM 19-86], came along and said, "Look, what about trying to make some yeast?" Because we'd had some people in from a previous camp, from Malang, that had had the eye troubles and had bought native yeast, which they said had alleviated the symptoms.

C.G.R.:

So it was Philps who...?

L.J.A.:

So it was Philps who really had heard about this. I hadn't heard. Philps had heard, presumably from the doctor who came in with that draft. I had got to know Philps first of all in that camp. I hadn't known him before. The doctor who'd been with us, you see, in Madioen, was old Doc Tierney, who of course was back with us in Surabaya. But I was introduced to Philps fairly soon after we got to the camp, and a bit later on, as I say, he'd come along and said, "Look, is there any chance that we can get some yeast?"

The idea came, not in the Jaarmarkt camp, but in another camp, because we were moved around about, in Surabaya. We first of all went to the Jaarmarkt camp, and there, after about three months, we were moved to another camp called The Darmo, which had been the barracks for the Royal Dutch Marines. We were there over that Christmas, the Christmas of '43. Was it '43?

C.G.R.:

1942.

L.J.A.:

'42. The Christmas of '42. After Christmas of '42 they moved us to a camp called the HBS [Hooge Burgeve School], which is the high school, the Dutch high school, in Surabaya. It was <u>there</u> that the suggestion came up of getting yeast. We tried to buy yeast from outside, and what we did in fact get was self-raising flour. It wasn't yeast at al. So that when we got finally back again to the Jaarmarkt camp, it was then that Dr. Philps said -- "Look, can't we make some ourselves? Can't we

actually grow some yeast? Can't you produce some yeast?" It was then that I got together with Mr. Altson, and you know the whole story from my report.

Well again, we just got started producing a fair quantity of yeast, for the really bad sufferers. The chaps who were really getting partially blind, when, of course, the notice to pack up and leave came through. As I've said in the report, Altson took some pure cultures of yeast with him, and I took a thermometer I'd made.

C.G.R.:

But he didn't go to the same place as you went?

L.J.A.:

No. Altson, you see, was an older man. Altson, at that time, was about 50. He had been a plant pathologist, a professional plant pathologist, in the rubber industry, in Kuala Lumpur, I think, the Rubber Research Institute in Malaya -- it was situated in Kuala Lumpur. I think (I'm speaking now from memory), and I think he was the senior plant pathologist in that Institute. He'd come down, of course, when the Japanese were advancing down Malaya, he'd come in advance of them and had gone into the bag. I met him first in the Jaarmarkt camp, actually. I hadn't met him in Malaya. I'm not quite certain how we contacted each other, but we did. He started looking after the yeast side of it, isolating the yeast, and I started looking after the biochemical side.

Of course, when that camp was packed up, what the Japanese did was to pick out all the healthy men, young healthy men,

officers and men alike. The older men, that means the senior officers, wing commander and above, (wing commander, colonel, etc. and above), who were at that time in their middle 40s and getting on, who were regarded as too old, and also other older men, planters for instance and people like Bill Altson, who was around 50, they were all packed up and sent up to a camp in Bandung, up in the hills.

Whereas all the young fit and healthy, or as healthy as possible, were packed up and packed off in these small ships and sent down to -- at least, not all of them, because some of them went up on the Burma railway. Some of them went out to Borneo. But we, about 2000 English, no 3000 English. 2000 RAF and about 1000 anti-aircraft, and other army people, went down to Amboina, together with about 1300 Dutch. There was about 6,000, I think, all told. Yes. About 3,000 English -- I suppose, 2,000 RAF and about 1,000 army -- and about 1300 Dutch, all went down to Amboina.

There we were in a number of camps. About 2,000-odd, mostly RAF, with about a couple of hundred Dutch, were on Haruku; about 1,500 -- no just over 1,000 -- mainly British army, but with a few RAF, no Dutch, were on the north corner, the north-east corner of Amboina -- Amboina Island, at a place called Liang; 1,000 Dutch were on the island of Ceram, which is the big long sausage-shaped island north of Haruku; and then another couple of thousand or more Dutch went down to Flores. That was the whole of the Moluccas contingent. The idea was to prepare airfields for bombers and fighters, for the ultimate attack on Australia. The idea was that they were going to invade Australia

and that would be the end of that.

Well, for many reasons this never came about. First of all, the Americans came back on the attack too quickly for them, and secondly, they were too far stretched. They hadn't got enough equipment and gear, and of course, prisoners were not very efficient in making airstrips with simple hand tools, chipping away coral with chisels and hammer, and so the work went extremely slowly. When we left Surabaya, the major, who was in charge of all that group of prisoners, gave a little harangue to the prisoners, saying, "Look. If you work hard, you'll be back in six months time." Well, after 18 months the airfield on Haruku was still not completed. The one on Ceram was. That was completed in about -- what, it was completed in about nine months, I suppose. The one on Haruku was never completed. The one on Liang was completed, and I don't know what happened down in Flores. I can't remember that at all.

In the first few weeks on Haruku, because of the fact a number of dysentery patients had been included on the ships, in those holds where we were sitting on each other's laps, more or less, down in the holds, with only a couple of boxes swung over the side of the ships, the latrines, and people with dysentery excreting all over the holds. In no time at all, the thing was just an incubator, and when we got down to Haruku, people were going down like flies. No medicine at all; the treatment was to starve you for three days, as if you weren't starving already! Nothing but water for three days, and then you got a little dose of Epsom salts. Hoping that that would do the trick. It

happened once in 20, perhaps once in 30, but usually you relapsed again within a couple of days. Naturally, the people died like flies. I can tell you the exact numbers because it's all down in the book there. But out of the 2,000, 300-odd died on Haruku. [Actually, 386.]

C.G.R.:

That was my understanding too. Yes.

L.j.A.:

Three hundred and eighty-six. Five hundred were sent back on a ship to Java, as being too weak and ill to work. About 700 from Haruku and Liang were sunk on the ship going back. They were torpedoed and they all drowned. Then a number of others died on the island of Amboina, on the way back, and so forth and so on.

I think Haruku was the worst of the camps, strictly from the medical point of view. Purely fortuitous, of course, that we should have had such a high epidemic. Such a huge number of people contracting dysentery and dying of it. On the camp on Ceram, there were very few deaths indeed. [Actually, 31, including 3 executed for trying to escape.] That was due mainly to the fact that they had a partly Japanese commanding officer, who allowed a small party to go out and fish, and the result was that they were sometimes supplied with fish in that camp.

Also, ten Houten and the pharmacist, a man called van Pappenrecht, who had taken my yeast-preparing methods with him, down to Ceram, he and ten Houten got to work and they were producing yeast with the maize technique fairly soon on, because they were able to get maize on Ceram, which we couldn't get on

Haruku. So that what with the fish and the relatively easy conditions, they were all relatively healthy. They lost very few people on Ceram, while we were dying like flies on Haruku.

C.G.R.:

Perhaps you'd tell me about your personal experience with dysentery.

L.J.A.:

Yes. Well, what is there to tell you? I'd been on Haruku for about three weeks before I contracted dysentery, and I went into the hospital barrack hut and had the usual treatment. I had two spells of the then classical treatment of three days' starvation plus a dose of Epsom salts. The first time it didn't work and I relapsed after a couple of days, and then they tried the second time and it didn't work, and it was that second time that I was on my last legs. I'd got to the stage of vomiting, which was always a sign of the end. I was beginning to stagger outside and vomit, and I think it was probably at this point when Doc Philps had probably said to his Dutch colleague, "Look. Audus is in a pretty bad way. Can you do anything for him?" I think that's probably what happened, although Philps has never told me this. But I suspect it might have happened that way. Anyhow, along came this doctor, Dr. Tromp, and gave me a jab of something, which I think was a sulfa compound -- sulfanilamide probably -- which dried me up just like that. Just like a miracle.

I've always had a feeling, a sort of guilt feeling, since then, when so many of my colleagues died and I was lucky enough

to have this jab. I don't know whether I ought to feel guilty or not, but I've always had this guilt feeling that I was lucky because somebody happened to step in in time.

Anyhow, it was a long drag back. I was passing blood for long periods after that. But finally that dried up. Of course, when I came back home, it left me with terrible hemorrhoids. I had treatment for hemorrhoids, chemical treatment, which didn't work, and then finally in 19 -- when was it, Rowena, 1958 wasn't it? -- I finally took the bull by the horns and had them excised. Went up to the hospital in North London here and had them out. It's a very painful business. Believe me. But it finally put paid to that.

C.G.R.:

You were cured.

L.J.A.:

Cured. Yes. I've never had any recurrence of dysentery. It was bacillary dysentery, thank God, not amebic. So there was no possibility of recurrence, which I believe there is with amebic. I was de-wormed thoroughly. I had the usual intestinal worms, and had a period in hospital here. Three weeks in hospital being de-wormed with -- what was it now? Hexa -- What's the stuff they de-worm you with? Hexylresorcinol, is it?

C.G.R.:

Hexylresorcinol. Yes.

L.J.A.:

That's it. That's the stuff. Again, the same old treatment. Starve you for three days, and then they give you this stuff and a good old dose of salts. That cured that.

There's been a certain resurgence of interest in this sort of thing in the Far East Prisoner-of-war Quarterly recently. They've been making a fuss because, apparently, some intestinal parasites have been rediscovered in prisoner-of-war's intestines.

C.G.R.:

The strongyloidiases?

L.J.A.:

Something like this. Yes. But I don't think I've got any residual worms or anything. I haven't bothered to be tested.

But of course I came away with bad eyesight. This happened to me, well I suppose it would have happened to me during the time I was ill with dysentery. I developed optical scotomata, I think it was called. Little mosaics of blind spots on the retina. It was so far advanced at one time that I could scarcely read. Then, when I was taking yeast during the yeast production period in Haruku, it improved, and it got back to the state it is now. I still have these patterns of blind spots, which prevent me doing any close critical work. I've never been able, since, to use the microscope. I can use it for seeing large objects, but if I have to do any critical observation under the microscope -- for instance, to give you an example, counting bacterial cells, or something of this kind -- then it's impossible, Absolutely impossible. When I came back, they gave me a whole series of tests. They pumped me full of vitamins, and every year for a matter of five or six years I had to go back for further tests, just to see whether there was any improvement. Finally they decided that there was no possibility of further improvement

and they gave me -- they gave me from the start, a 20 per cent disability pension, and as I said, they tested me every year for quite a few years after that, just to see whether there had been any improvement, just to see whether they could cut my pension off, I suppose. But no. I've still got those blind spots.

It doesn't really affect me seriously. I can read. I find difficulty, for instance, in recognizing people. If somebody's coming up, coming towards me, I recognize them more from their gait than from their features, because their face is just a blur. When I first came back, I found it extremely difficult to drive the car at night. In the daytime, it's all right. No trouble. At night, I just could not tell how far away the approaching lights were. They could have been right on me or they could have been a mile away. I had to adjust myself to that and it came slowly, and now I have no trouble driving at night. No trouble at all. So that's all the trouble I have. I can read. Except very small print of course, naturally.

C.G.R.:

Perhaps while we're on this subject, you might tell me again something about your dreams. We didn't have the tape on when you were saying it before.

L.J.A.:

Oh yes. Yes. The dreams. When I came back from Java, for the first year, I used to dream almost every night that I was back in the camp. I hadn't remembered that I had been freed. I thought I was just back in the camp. But on the other hand, I knew the war was over. I knew that I could be got out. I knew that the Allies were capable of coming and rescuing me, but they

didn't, and I felt very very resentful about this indeed, in my dream.

Mrs. Audus:

You used to shout.

L.J.A.:

Oh yes. I used to shout.

C.G.R.:

I don't blame you.

L.J.A.:

And this went on. In the first few months it used to happen every night. Every night I'd be back in the camp. Then it got less frequent. It used to be, perhaps after a year, it was once a week. But right up until about ten years ago, I was still, very occasionally, having the same dream. But now I don't have a dream of that kind. No, not that kind of vivid dream when you're really back in the camp and you can't believe that you'll ever get out of it, an extremely vivid dream. I've not had that kind of vivid dream now for 15 years or more. Although occasionally, I have had dreams which have a flavor of prison camp about it. Not the Japanese prison camp, but a flavor of being confined.

C.G.R.:

I hope you won't have one tonight.

L.J.A.:

Oh no, I don't think so. No, I think I'm finally cured, because I've been translating this Dutch book [Veenstra et al], and I've been at it now about three years, I suppose, picking it up on occasion, translating a page, and then putting it down, and

then next day, translate another page, and now it's completed. I finished it about six months ago, and I'm now going back to it and licking it into as reasonably idiomatic English as I can.

[End of side 1.]

C.G.R.:

We'll go back just for a moment to the dream, if I may.

L.J.A.:

Yes.

C.G.R.:

The camp you dreamed about, was it Haruku?

L.J.A.:

No. It wasn't. It was just a camp. It was just a general camp. Oh no. That's the interesting thing. I'm glad you mentioned that. I've never dreamt about Haruku per se. It could have been anywhere. Sometimes it was on a ship with the Japanese. No no. It wasn't specifically Haruku.

Well what else?

C.G.R.:

I have a number of questions, if I may.

L.J.A.:

Yes. Go ahead.

C.G.R.:

First of all, did you personally experience brutality?

L.J.A.:

Well, it depends what you mean by brutality. I learned very quickly that to do anything to resist the Japanese was just damn foolishness. So I trod the line as and when. I had no particular trouble with the Japs. I was hauled up before them

once or twice, on account of, for instance, making yeast in Haruku. The Japanese commander there thought that we were just brewing up alcoholic drinks, and I had to go along to explain it to him, with the Dutch interpreter, and that was all right. But of course, one inevitably, whatever you did, ran foul of the Japanese at one time or another. You got doled out with the usual treatment. You had to stand while they bashed you across the head, either with the flat of their hand or with their fist. I've been bashed around that way a number of times, but I've never been viciously beaten-up with bamboo sticks or with straps, like many of the prisoners were.

C.G.R.:

You had what we might term "routine brutality."

L.J.A.:

Routine brutality. Yes.

C.G.R.:

That leads me to another question. Do you remember when you first saw Sgt. Mori?

L.J.A.:

Not specifically. No. Not specifically. I think I must have seen him on the Jaarmarkt camp, because I think I saw him there when we were being marshaled on the parade ground and put into companies, ready for embarking on the ship. I think he was trotting around then. No, I can't remember precisely.

C.G.R.:

He landed with you though at Haruku. Is that correct?

L.J.A.:

He landed at Haruku. He was the guard in charge. The officers, as a rule, didn't come into the picture at all. They were just there. They had the ultimate responsibility of course, as you know, but they left the general running of the camp to the senior NCOs. They wielded all the power. Of course, punishment was always meted out to prisoners by the individual -- by the sergeant-major or by the simple soldier, the guard. If he thought that you were doing something that you oughtn't to be doing, he meted out the punishment. He bashed you up, either with his fist or with his stick or with his belt, or with the butt of his rifle, depending on how he felt. But after all, this is precisely what the Japanese did to themselves, as you know, although perhaps not so viciously.

C.G.R.:

You mentioned opposition to making the yeast. You were able to persuade them, were you?

L.J.A.:

There was never any opposition to making yeast itself. No, no. They were merely concerned -- and I believe this is genuine -- they were merely concerned that we were brewing up drinks for ourselves, you see. So I was asked to report with this Dutch interpreter, De Wilde, and I went along to the officer concerned, Kurashima, and the medical officer, Shiozawa (he was a captain), and I remember quite distinctly going into this little office place with these two Japanese officers, and they asked the questions in Japanese and I answered. Told them that we were making yeast because it provided the vitamins necessary. They understood that and they said, "Okay, but you must produce some

for our soldiers." So I had to produce a number of bottles of our yeast product every day for the soldiers. That was all right. Fine. No trouble. In Surabaya, they didn't know about it. We kept it absolutely secret. But in Haruku we couldn't keep it secret, because we were working in open-sided huts and the soldiers were always snooping around, seeing what was happening. Obviously we were producing things down there which weren't steaming rice and vegetable stew. So it had to come out. We couldn't keep it a secret.

C.G.R.:

What about the Dutch and the English? How did the groups get along?

L.J.A.:

It depended entirely on the level. There was never any really strong physical friction. Physical antagonism. The Dutch officers and the English officers got on pretty well. I got on very well with the Dutch officers. I think you'll also find out from "Dickie" Philps and "Doc" Forbes and other people, that they got on extremely well with their Dutch colleagues.

On the other hand, the average soldiers kept themselves apart. They didn't mix at all. The English called the Dutch the Godverdammers, and I presume the Dutch had a similar phrase for the English. Of course, the Dutch were very largely familiar with the country. Most of them had lived out there. They knew the tricks. They knew the kind of things you could do and the kind of things you couldn't do. They knew what kind of vegetables were available in the wild and so on, which the

English didn't know. So I think the English might have felt slightly resentful about that. But on the whole there was no great friction. I never noticed any great friction. Certainly, as I say, the officers got on very well.

C.G.R.:

One of the things that I'm always very curious about is this whole business having to do with two men who are basically the same -- body build, age, weight, diet, et cetera -- one of whom came back and the other didn't.

L.J.A.:

Oh yes. Well, this is very interesting. I can't explain it, but it was all a question of mental attitude. The best example I can give you of this, which probably is an extreme example, is of two men who had been buddies. They had joined up together, they had managed to keep together through all the camps, and they fetched up eventually in Haruku. They were both relatively healthy. One of them got dysentery, and died. The other didn't have dysentery, but within the month he was dead. They were so dependent on each other's company that when one died, the other gave up. There's no doubt in my mind at all that mental attitude was all-important in surviving or not surviving.

I noticed, too, that quite a lot of the really tough, physically tough men, people who you thought would survive, didn't survive, compared with the wiry ones. There's another example, an officer. He was an officer on the Haruku camp who literally, I wouldn't say pined away, but literally killed himself. The situation was that he had married only a short time before he was posted overseas, and during the year before he was

taken prisoner, he had written a number of letters to his wife, and she had written back saying that she was doing this and that and the other. The last letter he sent to her from Singapore, before he'd gone into the bag, had been written to her virtually accusing her of being unfaithful to him. Of course he got no reply to this; he went into the bag. This preyed on his mind, and although he didn't get dysentery, he developed a kind of depression, I suppose it was; he got thinner and thinner and thinner. He eventually died and I buried him on the way back. He survived Haruku, and was coming back on the ship with me, but by this time he was a living skeleton. He just died.

As I said, mental attitude played a vital part in survival. This is why I think I'm so lucky in that I had something to interest me. I had this yeast-stuff to make. I am certain that, quite apart from any nutritive value it might have had, its psychological effect was very important to me. Very important.

C.G.R.:

Yes. I've always felt that doctors, as a group, were very fortunate, because they could attempt to practice their profession.

L.J.A.:

Quite. Indeed. They didn't have time to sit down and think about themselves and think about what might have been. They were all worked to death, but I think it helped to save them.

C.G.R.:

Yes.

What about sexuality?

L.J.A.:

Sexuality?

C.G.R.:

Yes.

L.J.A.:

Didn't exist. Didn't exist at all. We never thought about sex. Absolutely none!

C.G.R.:

I've heard this many times, but I always ask the question anyway.

L.J.A.:

Well, I can tell you from my own experience, you didn't think about it. It just had gone. Just gone. The one thing uppermost in our minds was food. Sex comes second. Food first.

By the way, talking about dreams, the recurrent dream in camp was not about the camp, but about food. Whenever I dreamt in camp, it was about food. I'd dream that I was coming into a restaurant with a table loaded down with the most delicious food and just as I got to it it would disappear. Before I knew where I was, I was coming back into the same restaurant, with the same table, and it would disappear again. This was the dream we had. But sex never reared its ugly head.

Although I mustn't dismiss sex entirely, because there were stories. There were stories. I can't authenticate these, because I don't know from my own experience. But there were stories of men, slipping off the airfield into the bush, with a native woman. There were stories of that. Which was quite

possible. I mean, you could hoodwink the Japanese guard, anyhow. They were usually under a tree sleeping in the middle of the day. So it was quite easy for prisoners to slip through the bushes and buy eggs or something like this. So as I say, there were stories of this happening on occasion. But from my own experience, my own feelings, and with my knowledge of my friends, sex never entered our heads.

C.G.R.:

Did you see nicotine addicts in the camp? People who would trade their food for cigarettes? Things like that?

L.J.A.:

Yes. There were some. There were some. Mind you, it was prison camp that turned me into a smoker. Before I was taken prisoner, I'd not really smoked at all. I'd never smoked. I think maybe I had a whiff and had not liked it, or something like that. But I was not a smoker at all. My father was a heavy smoker, by the way, but I'd not smoked at all. Then, in the camps, this was one of the things to try to stop down the hunger pangs a bit, and I started to smoke rather coarse native tobacco. We could get this in the shops. Not only could you buy an occasional egg, and an occasional small dried fish, and fruit (it varied in quantity; sometimes there was none for a week or two, then there'd be a little come in), but also they would bring in native tobacco, and I started to smoke. Then, by the time I came out, I was smoking quite heavily. I smoked, I suppose, for five years, until it was affecting my health. I was getting catarrh and losing appetite, so I thought I'd stop. But certainly people

smoked a lot. Very heavy smoking. When they could get it, of course.

C.G.R.:

Were there what I would call "bad apples," bad characters, in the camp, amongst the prisoners?

L.J.A.:

A few. Yes.

C.G.R.:

I don't want names, but can you tell me anything about the kinds of difficulties?

L.J.A.:

Well, there were a few kleptomaniacs, who would rob their best friend of this, that, and the other. But not many of them. Not many. Well, we hadn't got anything to pinch. No, on the whole, on the whole, there weren't many bad eggs. There were a few that were bloody-minded, but on the whole not many.

C.G.R.:

Okay. I think you've said that at one time, when you had dysentery, you were down to about eight stone [112 lbs]?

L.J.A.:

Yes. I went down to eight stone.

C.G.R.:

Was that about your minimum?

L.J.A.:

That was about the minimum, yes.

C.G.R.:

Your normal weight then would have been about what?

L.J.A.:

Normal weight would have been 13 [182 lbs]. My normal weight out there was 13 stone and I went down to 8.

C.G.R.:

Which draft did you return to Java on? Do you remember about when it left?

L.J.A.:

Yes. I can tell you that fairly accurately. Although the Dutch book is not all that clear....

[Tape turned off]

I buried him [D.L.A. Hopkins] at Moena. These are the deaths on board, during the return draft between Ambon and Java, from the 31st of August to the 29th of September, 1944. So the actual trip that I came back on -- it was a small boat, 500 tons, not more, and we were about 300 people packed into this one hold, on top of empty oil drums. The officer in charge died and I took over command from him. Actually, I think I took command from the first, because he was too ill to command. He was a squadron leader, and I was a flight-lieutenant. So I took over charge of the boat. Clifford Beales, who was the dentist on Haruku and who died, by the way, only a year ago, whom I've kept contact with. Looked after my teeth on Haruku. He was on the boat with us.

I was the last officer, with about half a dozen men, to leave Haruku. Sort of final cleaning-up party. We went to Liang, on the north-east corner of Ambon. We were there for about three weeks, and then we went down to Ambon itself and -- oh a number of things happened there, but finally we were put on this little boat from Ambon harbor on the 31st of August, 1944,

and we arrived back in Java on the 29th of September.

Mrs. Audus:

Tell about burials there [at Moena on the way back].

L.J.A.:

Burial in a very very shallow grave, in coral rock. Only just enough to get him below the surface of the coral, that's all. There he was. [There was a fantastic sight as we were rowed over to the island -- the phosphorescence in the water.] It was a fantastic sight, because, do you know (what's it called now? -- Noctiluca? It is, isn't it?)

Mrs. Audus:

Yes.

L.J.A.:

Yes. What's the popular name? Phosphorescence. Yes. Well you put your hand in the water, and it drips liquid fire. Marvelous. I remember rowing back to the ship from that burial. The whole of the oars and the boat and everything was just dripping with this marvelous liquid fire. Fantastic! I'd seen it before. I'd seen it often in the tropics, but never quite as intense as that. Incredible.

C.G.R.:

Perhaps you'd tell me something about dentistry at Haruku. You mentioned Dr. Beales.

L.J.A.:

Well, the Japanese found an old treadle machine somewhere. I don't know where they found it. They brought it in, and Clifford Beales, who was the dentist with us, was given the job of looking after all the guards' teeth. Of course, there was a

spin-off here, because he could look after ours as well. He did a marvelous job. He really did an absolutely marvelous job. They didn't give him very much. All he had was a couple of drills and this old treadle machine, and he kept us all going. He stopped one or two of my teeth, and as far as I'm aware, the stopping stayed in until I came back.

C.G.R.:

You don't remember what he used?

L.J.A.:

No. I can't remember that. And I'm afraid poor old Clifford can't tell you now himself, although Doc Forbes or Doc Philps might know.

C.G.R.:

Yes. I'll ask Dr. Philps.

L.J.A.:

Did they tell you about the operations they did?

C.G.R.:

Yes. Well, I haven't seen Dr. Philps yet, but Dr. Forbes did.

L.J.A.:

Well, Dr. Philps did more of the surgery, I think, than Forbes. Dr. Philps was Dr. Springer's aide, as it were. I mean, they worked together on the operations, but he'll tell you more about that than Forbes would.

C.G.R.:

That leads me into the next thing I wanted to do. I just wanted to give you names and have you tell me a bit about the

individuals.

L.J.A.:

Yes. Okay. I will if I can.

[Tape turned off]

C.G.R.:

Perhaps the person to begin with would be Dr. Springer.

L.J.A.:

Well, as I think I said to you before, I didn't know him at all well, because he was a very busy person and for that reason a rather elusive person. I didn't have any personal contact with him, so I only know of him. And the various reports and what people thought of him.

C.G.R.:

Well, how about Dr. Bryan? Another one of the Dutch.

L.J.A.:

Dr. Bryan. Just a moment. I think -- the doctor that provided the drug that saved my life was Dr. Tromp.

C.G.R.:

That was the next name on my list. Was Dr. Tromp young at the time?

L.J.A.:

Youngish. Yes. I suppose he was about my age. I was about 30 you see. I was born in 1911, so that in '41 I was 30. So at this time I was 32. In '43. The end of '42 that would be. I was 31. So the beginning of '43 -- No, I must have been 32 when I came back to Java from Haruku. I was just about to be 33. Tromp must have been about the same age, I think.

C.G.R.:

Were you in touch with him at all, since the war?

L.J.A.:

No. The only Dutchman I've had -- I've had contact with two Dutchman since the war: ten Houten of course, whom I've had constant contact with all the time, and then the other one was Dr. Engelen. You remember him.

C.G.R.:

Yes. He's on my list.

L.J.A.:

Dr. Engelen was an ENT specialist. An Ambonese, actually. Sorry, an Achinese from South Sumatra. Incidentally, he looked after me. I had more contact with him, because I had something. Something went wrong with me. What was it now? Was it ear or was it eye? I had some infection which gave me much trouble, and Engelen looked after it for me. I've forgotten what it was, now. I've forgotten what it was entirely. It must have been -- I must have had an ear infection. I think it must have been an ear infection. Anyhow, I liked Engelen. He was a nice little Achinese gentleman. I saw him again after the war, because he was making a bid to become important in political circles in the Celebes. In fact, I think he was in Makassar at the end of the war, and I think that he stayed there and had got himself into a very high political position; the trouble was, I think I'm right in saying, that he wanted to get Celebes its independence from Java. I think that's what it was. My memory's getting rusty on these matters.

C.G.R.:

Certainly there was a very active political movement in that direction.

L.J.A.:

That's right. In fact, he was so active that he came over to this country. He wrote me first of all asking to come and see me. He came here. He was sitting in this room with me, and he wanted me to get him a audience with Winston Churchill, because he felt that Winston Churchill might do something about it. Now I couldn't help him. Obviously I had no contact with Winston Churchill. I couldn't help him, but I did in fact suggest something, and I've forgotten now what it was. He did eventually get an audience with Winston Churchill. Whether it got him anywhere or not I do not know. Because I'm afraid Sukarno and his group finally took over, as it were, the hold of the erstwhile Netherlands East Indies, including presumably Amboina.

C.G.R.:

Does the name Oswald Luce mean anything to you? Ozzie Luce? L-u-c-e?

L.J.A.:

No. Not at the moment.

C.G.R.:

He was a Canadian who was in one of the radar units in the Far East, but presumably not yours.

L.J.A.:

Well, the two Canadians in radar that I knew were, first, Monty Montgomery. He came up rather late, and although four units were sent out there to start with and the four officers (myself, a man called Connal, another man called Dykes, and a man

called Armstrong) -- Armstrong was seconded to central headquarters and another unit was sent up north and Montgomery took over command of that. He came to Singapore about six months after we'd been out there. But Luce, no, I don't remember that name at all.

The other man was Hanna, who I told you about before, but I didn't know much about Hanna. I didn't meet Hanna until we went in the bag.

C.G.R.:

Tony Cowling?

L.J.A.:

No.

C.G.R.:

Very young man who was turned into a medical orderly by Dr. Forbes. I just thought you might have remembered him

L.J.A.:

No. Cowling, no.

C.G.R.:

Okay. Then how about Dr. Philps and Dr. Forbes.

L.J.A.:

How about them? What do you mean?

C.G.R.:

Well, would you give me some of your recollections of them.

L.J.A.:

Splendid chaps in every way. Absolutely splendid. I knew Philps much better than I knew Forbes because we had interests in common. Not only that, he had been next door neighbor to a man

that I had known for many years, namely a man called Edward Salisbury, who had been Professor of Botany in University College, London, before the war and who was a world-famous man. An ecologist. He had lived next door to Dickie Philps, when Dickie Philps was a boy. And Dickie Philps could imitate his voice exactly. He had a very very peculiar intonation to his voice, had Salisbury, and Dickie Philps had picked this up from boyhood, and could imitate him absolutely precisely. So Dickie Philps and I had more in common, I think, than Forbes and I, for the simple reason that we were both interested in natural history. Philps in particular, because he was a very keen, very talented bird photographer. That brought us together. He was also a water-color artist, and I was also a dabbler in water-colors. He was interested in a number of things that we were interested in together. So I was thrown more into his company than into Forbes's company.

Forbes was a man who spent much, much more of his time with the men than I think Philps did, although Philps of course was absolutely untiring with his work with the men. But Forbes, as far as I can remember, used to go and chat to the men more than perhaps Philps did. This is just a vague memory I have. So I got to know Philps much better than I got to know Forbes, in those days. I don't know what else I can say about them really, except that they were both working 24 hours a day most of the time.

Philps arrived back in Java a little before I did. Or perhaps a little after I did. I can't remember. But we arrived back on Java, about the same time. Forbes, on the other hand,

didn't get back to Java. He was in the very last batch of prisoners to leave the Amboina area. He got back as far as Moena and was stranded there for months. He eventually got back to Makassar, having had terrible experiences on the way, and was there when the war ended. Once he got there I think he was all right. But they had a terribly bad time. So I didn't see Forbes again until after the war.

As I told you, Philps had contracted TB and went into a sanitarium for quite a time when he got back, but he'll tell you about that.

C.G.R.:

Yes. Well, perhaps just to finish off, would you say a few words about your time after you got back to Java, just to round this out?

L.J.A.:

Well, when we got back to Java we went into a big camp just outside Batavia, called Kampong Makassar, or Kampong Makassa. Now here, it was like coming back into paradise! Because the food was relatively plentiful and relatively varied. It had been a camp run by the Dutch for a very long time. They'd got themselves thoroughly organized. There was, for instance, a soap factory; they were making quite large quantities of soap by boiling up fats with wood ash, and they produced a gray, rather sticky soap, which wasn't very efficient but at least it was soap. We hadn't seen soap for two years. In Haruku, all we could do, you see, was to take clothes to the river and put them on rocks in the river and stamp up and down on the clothes and

try to force the dirt out of the clothes. Of course, the shirts got grayer and grayer and grayer and grayer.

I remember one of the things which gave me the greatest pleasure, when we got back to -- which camp was this now? One of the camps in Java. It must have been Kampong Makassar. It must have been that. There were some.... Oh gosh. My memory's getting a bit faded now. But one of the camps on Java, they had a bath house which was over hot springs. There was hot water coming up. One of the camps, I've forgotten which it was now. The joy of having a little soap and some hot water, to wash your clothes as well as yourself -- absolutely marvelous. But I wish I could remember which camp it was. I can't.

Anyhow, to come back to Kampong Makassar. They'd got thoroughly organized. It was there that I met an officer that I got to know fairly well. Splendid chap. At that time he was a wing commander. Wing Commander Ramsay Rae. An Australian. General duties; flying man. In fact, he rose to quite high rank in the air force, because when I was out in Singapore in 1961, he was commander of the Seletar camp. He was then an Air Vice Marshal. Anyhow, that's all by the way.

I also met a man called Ruhmke. R-u-h-m-k-e, who was a Dutchman, a geneticist, who was very anxious to learn English. It's very strange that a Dutchman of his seniority would never have learned to speak English and read English fluently. I remember I spent quite a long time with him, reading -- in fact, I remember exactly what the book was. It was Microbes for the Million. Do you know the little book?

C.G.R.:

No. I don't.

L.J.A.:

It's a book written by...now who wrote it? It's a popular book about microbiology. That's what it was. Microbes for the Million. I remember reading this with him.

So we really did recover in that camp. As I say, the food was reasonably good, and I think that, more than anything else, put me back on my legs, anyhow. I must have put on some weight from the eight stone. I must have put a stone or two on. We weren't in that camp all that long. We were in that camp for about a month, I suppose.

Then we were sent up to Bandung, up into the hills, and there we were in two camps. One camp where we went up with the Flores people. All the people who had come back from Flores. It was there I met another great friend of mine. A Dutchman, Rorlofsen, who, after the war, became Professor of Technical Botany in the University of Delft. Great man on paper and natural plant fibers. This was his specialty. Became a world name in electron microscopy of plant fibers. It was there that we got going again on tempeh-making. I didn't mention that tempeh-making down in Haruku did I?

C.G.R.:

No.

L.J.A.:

Tempeh -- do you know what tempeh is?

C.G.R.:

Yes, I think so.

L.J.A.:

Tempeh kedelai. The normal kedelai bean, soya bean, is completely indigestible.

C.G.R.:

Is this Phasiolus?

L.J.A.:

No, it's Glycine Max. Glycine. It's the same thing they make soya sauce with.

C.G.R.:

Oh yes. Okay.

L.J.A.:

The beans we got, you could boil them until the cows come home and they were still hard and indigestible, and they'd be excreted unchanged. One way of dealing with these, the natives had long since discovered, was to grow a fungus on them. This fungus penetrates between the cells, partially digests the cementing layer between the cells of the cotyledons, so that at the end of two or three days, after the process is over, you've got a cake of semi-digested soya beans, like cheese. You can cut it like cheese, and it's completely digestible, and very nutritious, because it's got a very high content of fat, it's quite rich in vitamins, and it's very high in protein, being a pulse.

I was in charge of the yeast factory and as a kind of off-shoot, they put me in charge of making tempeh as well. The technique was learned from an old Ambonese and from one of the Dutch doctors, called Pieters. Having acquired this technique, we then continued to make tempeh on Haruku until we came away. I

think that also contributed very very much to the recovery of the people who survived.

Then, when we got back again to Bandung, having come up from Kampong Makassar, back into the hills, we met up with the Flores group, and I met Rorlofsen, and a small group of us then combined together and started making tempeh up in Bandung. For, oh, a few months, Rorlofsen and I worked side by side, with others, of course, making tempeh.

One of the techniques, incidentally, of making tempeh, you take your beans, which is the whole beans, with the testa on and all the rest of the skin on. You boil them, and this makes it possible to remove the testa, the external skin of the bean. So you put these beans in a big basket made of woven split bamboo, and then you take off your klompers (we all wore these wooden clogs with a strap around our instep) - - take them off, wash your feet of course, and then stamp on these beans. This presses off the testa. Then what you do is to put it in a large pan and wash the testas away. They float and the beans sink and you wash the testas away and then you spread the beans on sacks in the sun to dry, so they get just surface-dry but still fully imbibed. In that state, you put them in boxes, inoculate them with fungal spores, cover them up and leave them a couple of days, and you've got your tempeh.

It's an acquired taste. It has a very characteristic taste, flavor, and smell. Very much an acquired taste, and the normal way of preparing it is to fry it in deep coconut oil, and we used to make our own coconut oil from coconuts. I found it delicious.

Absolutely delicious. Mind you, not having much in the way of tasty food, I suppose anything would be delicious. But I've often wondered what I would think about it if I had it again today. But I'm certain that the tempeh we had in Haruku towards the end -- there was a little of it; not much, but a little of it -- and the tempeh we had up in Bandung, at that period, I think that was a great help in getting some protein and some vitamins inside us.

C.G.R.:

Were there spices? You were in the Spice Islands, after all.

L.J.A.:

Oh yes. We were in the Spice Islands. These were the things that one got in the shops, of course. Sometimes the Japanese would bring in peppers. The spices were mostly peppers. The little tiny, very very hot peppers, which the Malay call chabai-rawit. They're very very hot!

We used to make sambal, with little red peppers, and what you do is to mash them up in coconut oil, and you get a very very thick, red, extremely hot sauce, which gives some flavor to the rather insipid rice we had. Any other spices? We saw lots of nutmeg, because when we were in Haruku, we were located in a nutmeg grove. In fact, the first thing I saw when I woke up on that very very damp morning, in the muddy floor of the hut we were in (where there was just a roof and nothing else, and the water was running through the hut) -- the first thing I saw when I woke up that next morning, was a nutmeg. They're beautiful things, nutmegs. The nutmeg itself is a little brown thing of

that size [1.5 inches diam.] covered with this beautiful sealing-wax red coat, and then around the whole thing is an orange flesh. It's a very beautiful object, is a nutmeg. There it was. I can show you a picture of one, I think.

C.G.R.:

We're just ending here. Is there any last thought you wanted to put on this tape? Then I'd be very interested in seeing the pictures.

L.J.A.:

I don't think so. Oh. Well, I was in the camp which was, according to Laurens van der Post -- you've heard of him have you?

C.G.R.:

Oh yes.

L.J.A.:

I was in the camp with Laurens van der Post, which was scheduled for the death march, and which he describes in one of his books -- the preparations they made in order to ensure that <u>some</u> people survived from that death march. In that camp, we all had to go out into the fields collecting stones and bring stones back into the camp. Well, I was involved in that with him. In fact, the whole thing at that point was very tricky, because they were trying to recruit prisoners from this camp to go down and repair motor cars, down in Batavia, and they asked for volunteers and motor mechanics; nobody would volunteer, and they got very very angry because they knew damn well that in this camp there must have been dozens and dozens and dozens of quite skilled

motor mechanics. The thing got very tense indeed, for a time, until somebody had the sense to say, "Well, let's all volunteer." But that was Laurens van der Post's camp.

Fortunately, of course, they dropped the atomic bomb.

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38 Belmont Lane
Stanmore
Middlesex
HA7 2PT
Tel: 01 954 1172

Date: 27/9/88

Dear Prof. Roland

I have been through the typescript of our interview and have made corrections as requested and as far as it is reasonable. As you say it all reads rather awkwardly as speech always does when transcribed into the printed word. However what, in retrospect, is of considerable concern to me is that so much of the interview was concerned with matters which are of little relevence to the terms of reference of your research - for example my personal background and the events in the Far East befpre my being taken prisoner. I am unhappy that all this will have become a permanent record on a computer disc. After all, much of our discussion in this area was of a very subjective nature and I would think it better, now you have heard my views, to erase such medically irrelevent detail from the disc. Furthermore the story I was able to tell you of my activities in the nutritional field could be covered only sketchily in the interview; in any case they are dealt with in detail in my article in *Discovery* of which I believe you have a copy. I hope you can see your way clear to the editing of your computer records along these lines.

I have finished the translation of the Dutch book. It now exists in the form of two bound copies in, I hope, good idiomatic English. I have also included a number of my own caricatures of some key individuals from the camps. However I doubt very much whether I will be able to get it published since publishers are not looking for well-documented historical records but for sensational money-making semi-novels - as it has become obvious from the experience of some POWs I know. But I shall try.

I have no photographs of myself in Madioen. I am sorry if I gave you the wrong impression at any time.

Yours sincerely

L.J.Audus

38 Belmont Lane
STANMORE
Middx
HA7 2PT
01-954-1172

14/12/86

Dear Dr. Roland,

Many thanks for returning the monograph which arrived a few days ago. I am glad you found it of use.

The names of the workers in the Yeast Factory at Haruku as portrayed in my caricatures are as follows:-

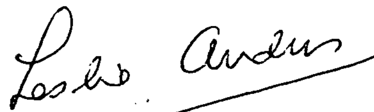
English. Cpl. Bob Moore R.A.F., P/O Tinnicliffe R.N. (These two were workers in the cookhouse and were not specifically Yeast personnel.)
A/c Barker, Cpl. Wood, R.A.F.V.R., A/c Hill,
A/c Stockman R.A.F., Cpl. Charlie Ward. R.A.F.V.R.

Dutch. Cpl. Van Burenschelen. Uppenkamp, Jan Voordijk, Schroeder, Veenenbos, Lievens, Dr. J. G. Ten Houten (my immediate colaborator), Van Papenrecht (the army pharmacist that provided the microscope, Fehling solution etc.), Dr. Hollander (Not associated with the project)

I hope you can fit the faces to the names.

With every good wish for Xmas and the New Year,

Yours sincerely,



L. J. Audus.

ANS'D

38 Belmont Lane
STANMORE
Middx
HA7 2PT

20 June, 1986

Dear Dr. Roland,

As regards your proposed visit to see me in August, it is a relatively simple matter to get from Central London out to Stanmore by public transport. There is a very frequent tube service (every 7 minutes in the early evening) on the Jubilee Line. Busses are also frequent but not so convenient since a number of changes would be required. As regards the date I regret that I would rather not try to make a definite fixture at the moment, The uncertainty of my wife's health and her appointments with hospital clinics etc makes it impossible for me to keep to a rigid timetable for periods very long in advance. However if you would phone me (954 1172) at your convenience when you arrive in London I am sure we can easily fix a date and time for your visit to Stanmore.

Looking forward to meeting you and hearing how your researches are progressing, I remain

Yours sincerely

L. J. Audus

38 Belmont Lane,
Stanmore
Middx. HA7 2PT
England.
21-3-86

Dear Dr. Roland,

As promised here are the photographic copies of my POW caricatures of Drs. Alton, Forbes and Phelps. The decapitated individual is a Dutch Dr. Tromp, who saved my life - but that is another story.

As regards the translation of the Dutch publication this is a 440 page book. The rough translation now exists as a thick pile of manuscript which (eventually) will have to be polished up into good idiomatic english before any attempt is made to publish it. I think it unlikely that you would get much additional medical information from it other than what you must have heard from Doctors Forbes and Phelps. I do not think Dr Springer wrote any reports in English.

It has suddenly occurred to me that there is one British Publication that you would find extremely helpful. It is a Special Report, published by the Medical Research Council over here. It is entitled

"Deficiency Diseases in Japanese Prison Camps" by D. A. Smith and M. F. A. Woodruff. Published by His Majesty's Stationery Office in London in 1951 Special Report Series No. 274. Unfortunately the report is almost exclusively about Singapore and Hong Kong camps and there is no mention of the quite independent and usually very much worse situation in the camps in the Dutch East Indies. ~~and~~

I hope you will be able to get hold of a copy in Canada.

Yours sincerely.

L. J. Andus

38 Belmont Lane
Stanmore
Middx. HA7 2PT
England.
1-3-86

Dear Dr. Roland,

I apologise for taking so long to reply to your January letter, Yes I would very much like to meet you if you manage to get a few days in England during August. At the moment I do not anticipate being away then. Please let me know as soon as you can when you expect to arrive.

Best wishes for the coming year

Yours sincerely

L. J. Sanders

38 Belmont Lane,
Stanmore,
Middlesex, HA7 2PT,
England.

19 November, 1985

Dear Dr. Rolend,

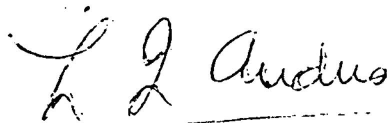
Many thanks for your letter. I can identify two of the characters in the third illustration from my article in Discovery. A is a young Ambonese whose name I have long since forgotten. He was very skilled in keeping fires going with green wood by using a hollow bamboo pipe and blowing down it. B is my old friend and close colleague Dr. H. G. Ten Houten, who, as I think I told you, was responsible for keeping the yeast inoculum going. C was Aircraftsman Stockman RAFVR whose subsequent fate is unknown to me.

I am happy to send you a photograph of myself. This was taken in the first few days of 1941 when I was on embarkation leave just before leaving for the Far East. There is no need to return it as I have duplicates.

As regards the caricatures of Drs. Forbes, Philps and Altson these are water-coloured drawings bound up in a book and are not easily xeroxed. I have taken colour negatives of them and will send you prints when the film is processed IF they are reasonably successful.

Kindest regards,

Yours sincerely



L. J. Audus

38 Belmont Lane,
Stanmore,
Middlesex, HA7 2PT.
England.

16 September, 1985.

Dear Dr Rotand,

Many thanks for your letter which arrived recently. I am glad that you have found my article useful and of interest. Let me take your further questions in order.

A). The caricatures.

Fig. 2 on P.6, I am ashamed to say is a nobody — just a figure drawn to illustrate our typical dress at the time - vest - green Dutch army breeches - home-made wooden clogs. The original drawing from which this was copied actually had a self-caricature but was changed for this particular article.

The other two illustrations appeared first in the Discovery article and are of some of my erstwhile colleagues.

A. An ancient Dutch East Indies regular soldier called Lievens. He died on a ship on the way back to Java in October 1944.

B. Corporal Wood RAFVR. Died at Raha on Amboina on his way back to Java in April 1945.

C. Corporal Charles Ward RAFVR. One of my own Radar operators. Also died at Raha on Amboina on his way back to Java in April 1945.

D. Jan Voordijk. An irrepressible Dutchman. Before the war an international fencer of repute. I do not know whether he survived. He certainly got back to Javá.

E. Schreuder. Another Dutchman. Quiet but with a very wry sense of humour. As for Voordijk.

F. A.C. Barker. RAFVR. A somewhat older man than most prisoners. Survived and lived , when he came back, a few miles from here. His daughter, born after his return, eventually became secretary to one of my colleagues in the University of London. I have since lost contact.

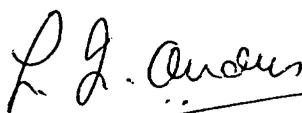
I have caricatures of the other three you mention but Drs. Forbes and Philps were very much occupied in the hospital huts to get involved in yeast making. Dr. Altson, a mycologist from the rubber-growing industry, did not go to Haroekoe and I know nothing of his subsequent activities. He survived and died at a ripe old age some few years ago.

B). Dr. Philps details are:-
Dr. F. R. Philps, MBE,
Woodlands,
Sydenham Wood,
Lewdown,
Okehampton,
Devon, EX20 4PP,
England.

C). Certainly it should be helpful to contact Prof. ten Houten. Although he could add little to the yeast story, which is fully covered by my articles, yet he should be able to put you in contact with surviving Dutch doctors who would have information about the use of native medicines in the Moluccas where conventional drugs were non-existant. As regards language, all educated Dutchmen are multilingual, speaking and writing in four languages - Dutch, English, French and German. ten Houten is no exception. His address is:-
Prof. Dr. J. G. ten Houten,
Belmonte Flat,
Gen. Foulkesweg 285,
6703 DL Wageningen,
The Netherlands.
Incidentally Dr. Forbes may have retained some contact with his erstwhile Dutch colleagues. The senior Dutch doctor in the Haroekoe camp did have close contacts over here. He was a much loved and revered man but died a year or so ago. There may be others he knows about - I hope so.

With every good wish for the success of your researches, I remain,

Yours sincerely



L. J. Audus.

the thermometer. But to blow a thermometer you need a hot flame, a bunsen burner at least. This had to be made first from metal piping, which the camp scrap heaps supplied in plenty. Then, with much trepidation, I attacked the making of a thermometer, and succeeded, with luck which never ceases to astound me, in making one which worked quite reasonably well. It was calibrated with boiling water and with ice, which occasionally came in small quantities with the meat supply from the local cold store.

Thus we started our experiments and after about a month we were ready

FIG. 2.—View of lean-to laboratory behind the hospital in the Jaarmarkt P.O.W. camp at Sourabaya. The prisoner is seen filtering off the wort from the cell debris after overnight digestion in the large electrically-heated water-bath on the right by the door. The petrol cans covered with cloth contain inoculated wort. The electric steam sterilizer is at the end of the bench on the left. Maize grain is seen soaking in the large zinc tray under the bench.

to go into bulk production of yeast. The following are the final details of the process.

Every day about a stone of maize was soaked in water and then allowed to germinate between damp rice sacks. It was left to grow for three days, and the seedlings were then taken and put through an ordinary household mincing machine, borrowed from the cookhouse. This was then mixed with four times its own bulk of water and incubated at 55° C. in clean petrol cans in a water-bath from about 5 o'clock in the evening to about 8 o'clock next morning (see Fig. 2).

We had very great difficulty in designing and manufacturing a thermostatic bath which could be maintained at this temperature. I have not time

and exposing the culture to the atmosphere. As it cooled down, the growth rate was lowered, and after a further 18 hours or so the whole of the layer of rice had become completely matted into a thick mass which could be lifted out of the box in one sheet. These " blankets " as we called them were crumbled up as finely as possible and then placed in large wooden vats, which had been made by carpenters on the camp, and mashed up with a very small quantity of water into a thick kind of porridge (Fig. 7). This was then mixed with boiling water in earthenware sauce jars, which we had stolen from the Japanese. The mixture was made of such proportions that the final temperature was about 55° C. and the ratio of rice to water was 1 to 4. The jars

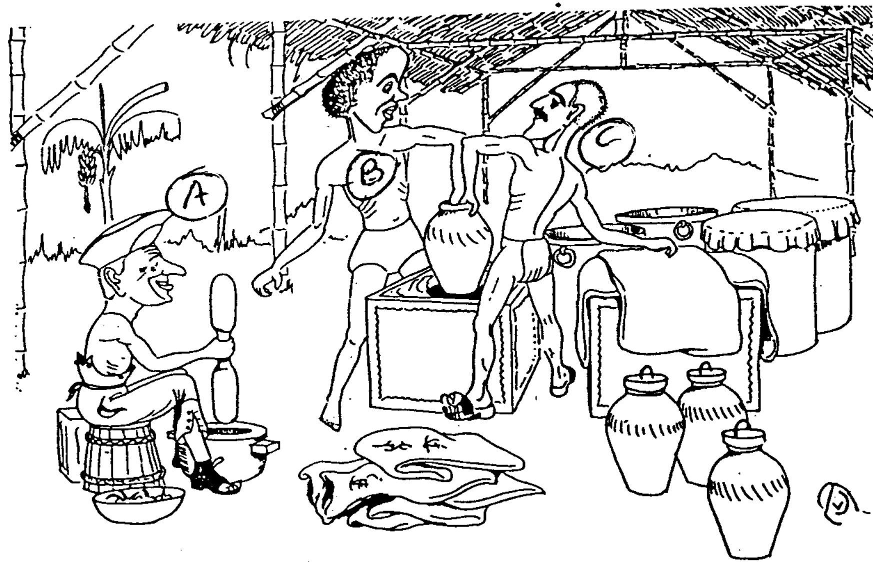


FIG. 6.—Yeast factory, Haruku, showing preparation of mould inoculum powder (left), digestion hot-boxes (centre) and fermentation drums (rear right).

were then nearly full. They were then stoppered with wooden bungs and placed in tea chests lined with sacks which served as our incubating hot-boxes (Fig. 6). They were covered with more sacks and left from about 5 o'clock in the evening to 8 o'clock next morning. These hot-boxes were extremely efficient since by the end of the incubation period the temperature had seldom fallen below 45° C. We then had in these jars a thick, milky, sweet liquid containing cell debris and the fungal hyphae. This was then rubbed through a sieve made of copper mosquito gauze and then put into large iron stew-pans and brought up to 75° C. to sterilize (Fig. 7). This hot, sterilized digest was transferred to large steel drums, normally used for cooking vegetables, covered up and allowed to cool (Fig. 6). We found that if we allowed it to cool in the air, the temperature dropped very slowly, and was still at about 30° C. when we inoculated it with the pure yeast culture. This

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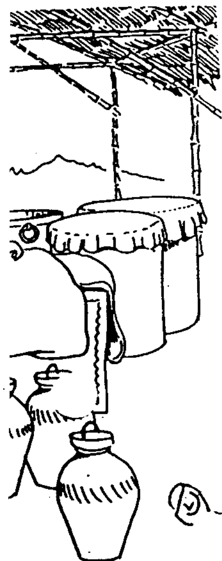

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favoured the growth of unwanted organisms (mainly lactic acid bacilli) in our fermentation liquids. In order to maintain a satisfactory predominance of yeast, we had to cool the liquid down quickly by immersing the drums in the river running by the end of the cookhouse. We had to anchor the drums to the bank with de-barbed wire. Over the course of a few hours the temperature then dropped to about 20° C. which was optimal for yeast growth. The drums were then inoculated with the "pure" culture of yeast and allowed to ferment for 48 hours. This gave us a thick, milky suspension of yeast and rice cell debris, which was sterilized and issued to the camp in quantities of a few fluid ounces per man. People suffering from really

FIG. 7.—Yeast factory at Haruku showing the various sterilisation processes, which were done in shallow steel cooking pans (locally called "watjang") over wood fires. On the right the mould and rice "blankets" are being pounded into a porridge with water before going into the digestion jars in the foreground.

serious eye troubles received much more; some of them received about a pint a day. At the peak of our production we calculated that we were producing between one and two kilograms of yeast per day for the whole camp. This may not seem very much, but it represented quite a reasonably efficient conversion of the rice we had available.

No doubt you are asking yourselves whether all this effort was to any avail. To this I cannot give the positive answer I would like, since we could not allow ourselves the luxury of an experimental approach. We had to dispense as much yeast as we could to everybody. Controls were out of the question and so there is no possible way of knowing what would have happened otherwise. One can only guess at the effects, and this, then, is my estimate of them. The whole camp was then suffering from a number of deficiency

contained a very wide variety of

(over)

38 Belmont Lane,
Stanmore,
Middlesex, HA7 2PT,
England.

17 August, 1985.

Dear Dr. Roland,

I was most interested to get your letter and to hear that you were researching the history of medical care provided to POWs during the last war. Dr. Forbes, who will be visiting you next month, is a friend of mine who suffered with me the appalling experiences of Japanese camps in the South Pacific. He will be able to give you first-hand accounts of those conditions and how allied doctors had to cope with them with virtually no help whatever from the Japanese - in fact, as he will tell you, they seemed to go out of their way to hinder the recovery of those "cowardly" prisoners who prefered incarceration to a fight to the death.

Yes, I was indeed fortunate in being able in two camps over the period from May 1943 to August 1944 to produce a suspension of yeast cells to administer to prisnners which I hope was responsible for staving off some of the worst effects of malnutrition and possibly for saving lives. Of course it is impossible to be certain about such effects since the exercise could not be of the nature of a proper experiment with controls and my erstwhile medical colleagues, better then I, can give you an assessment of what these efforts were worth. The doctor who was particularly concerned with encouraging me with this work was Dr. F. R. Philps, now retired and living in Devon. If you wanted to write to him I, or Dr. Forbes, could give you his address. I wrote up the story of our yeast "factories" in a now discontinued periodical in 1946 (Biology Behind Barbed Wire, Discovery , July 1946, pp. 211-215). This describes two processes, somewhat different in the two separate camps, in fair detail but I regret that I have not now available copies to send you. I trust you will be able to find this publication in a convenient library. A somewhat shortened version was given in a lecture I gave to The Association of Science Teachers in 1955 in London and I was subsequently persuaded to polish it up for publication in The School Science Review (same title as in Discovery) No. 134, November 1956, pp. 2-14. I enclose a Xerox copy of this article. (Incidentally the illustrations are my own caricatures of the actual individuals who worked with me

on the production.

As you will gather we received no help whatsoever from the japanese authorities- in fact in Java the matter had to be kept strictly secret and Mr. Altson and I had to appear in the records as "medical orderlies" to prevent us being sent out of the camp as navvies on the regular working parties. All the maize for the Sourabaya work had to be smuggled in via Chinese "friends" on the outside (under what guise I never enquired) and we used electricity unofficially for which we would undoubtedly have been punished had we been found out.

In Haroekoe again the whole process was kept secret for some time and again I and my colleagues (half of the English, half Dutch) were part of the cook-house staff. Since numbers working in the cookhouse were severely restricted by the Japanese, this meant the real "cooks" had to work that bit harder and longer to make up the "deficiency" our presence caused. Incidentally my scientific colleague in Haroekoe , not mentioned by name in the account, was Dr. J. G. ten Houten (now Professor Emeritus of the University of Wageningen). However about Xmas 1943 our activities leaked out to the Japanese and I was hauled before the Japanese camp commandant and a Japanese medical officer to account for our misdeeds. Fortunately with the help of a Dutch interpreter I apparently succeeded in persuading them that our efforts were of potential value and, since the Japanese guards themselves were suffering from mild beri-beri, we were allowed to continue, provided we supplied half a dozen bottles of our suspension per day for the afore-said guards. BUT of course there was no augmentation of our meagre rice ration to compensate for this.

One rather interesting story concerns the notorious sadistic sergeant Mori, the virtual though not the actual commandant of the camp. He had a birthday and insisted on my making saki for him to celebrate. Not wishing to incur his wrath and subsequant unpredictable punishment I complied. He did allow us extra sugar to fortify the brew and we succeeded in making a very strong and quite respectable yellow wine (in addition of course to the regular yeast ration). This was tested by the medical fraternity (particularly Drs. Forbes and Philps) who declared it too strong for the unpredictable Mori. We therefore halved the total brew, diluted one half with water for Mori and had the other half ourselves. Mori was apparently perfectly content with his allocation.

One other activity in which the "yeast makers" on Haroekoe became involved was the manufacture of tempeh-kedeleh . On this camp no meat was ever seen, exceot for the occasional wild animal we were able to catch and add to the pot. Instead the Japanese occasionally gave us a sack or two of aged soya beans. From this we attampted to extract soya milk with little success. Cooking was useless since no ammount of boiling would soften the beans which, after eating, were excreted whole and completely undigested. We therefore had recourse to a native procedure long used in the Far East by the natives, i.e. the perparation of tempeh-kedeleh. Ambonese fellow-prisoners supplied the bare bones of the method and the job of manufacture was handed over to the yeast boys in the cookhouse. Basically the beans are first boiled and then, when cool, are stamped with bare feet in rush baskets to slip off the seed coats (testa). These are then washed away in running water (we had a convenient stream at the back of the cookhouse) and the separated seed-leaves (cotyledons) thus produced are surface dried in the sun on sacking. They are then spread in an inch thick layer between leaves in shallow trays (made in the camp), inoculated with fungal spores (the mould Aspergillus Wentii or A. oryzae) , covered with a lid and left for 48 hours. The fungal spores for inoculation are obtained from the final produce allowed to mature so that the fungus sporulates. I am ashamed to say that I cannot recall the original source of our tempeh at Haroekoe. I think it may have been brought over from Ceram by the contingent of Dutch prisoners arriving about October 1943. Thay probably got it from natives on Ceram. After 48 hours the fungus has completely pervaded the whole bean mass, penetrating the cotyledons and causing the cells to separate so that a soft cheese-like cake results. This could then be cut into small square portions (about 3" x 2" x ½") and distributed after frying in coconut oil (also extracted on the camp). It had a very characteristic odour and taste which a few disliked but the majority obtained a taste for. Since this tempeh was now completely digestible, it served as a very rich source of protein, fat and other nutrients.

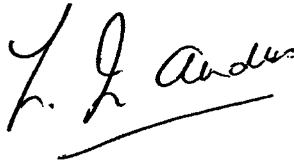
The Dutch medical and other officers with tropical experience knew of a number of natural sources of potential medicaments, such as gambir, a tannin-rich plant product which helped a little against dysentery. No doubt your contacts with medical POWs from the Far East will be able to tell you of the native medications they were able to use.

I think that is all that occurs to me at the moment but if there are other specific questions you would like to raise I will do my beat to answer them. The Dutch

medical officers would be able to tell you the most but I have no contacts now with those still living. Perhaps Dr. Forbes may be able to give you some names and addresses if you wish to pursue this line further.

I immagine your researches will eventuate in a publication or publications. If so I would very much like to know if it (them) in due course.

Kindest regards, yours sincerely



L. J. Audus.