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Ritual Bath among the Seereer



INSTITUTE FOR THE HISTORY OF MEDICINE, UNIVERSITY OF VIENNA
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Frontispiece:

The *p^{ogax}*, the ritual bath, is the final stage of a treatment among the Seereer. Muttering words of conjuration to the *pangool* the old man with a calabash scoops cold water over the shoulders of the woman. Freezing but devoted, the woman washes the blood of the sacrificed hen off her skin. She is now convinced to have overcome the disease (see page 13 ff.)

Photograph: Armin Prinz

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Editorial

Ruth Kutalek

With this issue we continue to present various works and projects from scientists that are personally connected to our Department and the Austrian Ethnomedical Society.

Nancy Pollock reports on a court case in New Zealand involving the use of *kava* (*Piper methysticum*). She gives an account not only of the interesting case itself in which she was called as an expert witness, but goes into detail regarding pharmacological and cultural backgrounds of *kava*. Alexander Weissenböck has been working at our Department for more than one year, supported by a fund of the Austrian National Bank. He reports on his project that deals with documenting and digitalizing the ethnomedical collection. Armin Prinz, well-known not only for his written work but also for his fabulous photographs, gives us in the “Visual Anthropology” series an account on the traditional treatment of a sick woman among the Seereer in Senegal. In the following two presentations we invited two scientists, Gerhard Kubik and Jun Takeda, to report on their projects and work. With both portraits we start with a series that wishes to introduce members of our Society and bridge the gap between the sciences. The last presentation finally is an interview with Zohara Yaniv who is presently guest-professor at our department.

On the last page of this issue we printed the index of the Viennese Ethnomedical Newsletter from its beginning in 1998 to give newcomers an overview of our work. We would also like to encourage you to give us your comments, critique and suggestions regarding the newsletter.

Is *Kava* a Drug? A Pacific Conundrum

Nancy J. Pollock

The term “drug” has been applied to the substance obtained from the roots of the plant *Piper methysticum* (see Singh 1986). The plant, uniquely found growing in the islands of the Pacific, has been known to pharmacologists for over 150 years. Research by a French naval surgeon, Gilbert Cuzent in the 1850s, identified the kavalactone properties of *kava*, in his search for plants in Tahiti that might produce a substitute for alcohol (Cuzent 1983).

The narcotic properties of *kava* have been recognised more recently as a “natural remedy”, readily available in New Zealand, Europe and the USA for the treatment of stress, anxiety, depression, insomnia and more (Greenwood-Robinson 1999). Extracts of *kava* are available in health food shops and general stores in New Zealand, commonly found in both tablet and beverage form. But its characterization as a drug has come into question as a result

of a court case in 2000 in which a Tongan was charged with a driving offence “while under the influence of *kava*”, as discussed below. That court case raised the whole question of whether *kava* should be included amongst substances listed in the New Zealand Land Transport Safety Act as “mind-altering substances”. Called as an expert witness for the defence of the Tongan so charged, I argued that the circumstances in which *kava* had been used were traditional in Tongan society, and thus markedly different from the use of *kava* in pill form in the western world (Pollock 2000).

The New Zealand Court Case

In January 2000 a Tongan male was stopped by a traffic officer when driving on a motorway out of Wellington at 3 a.m., and subsequently charged with erratic driving. The case came to court first in September 2000 and was finalised

in November 2000. The issue throughout the case was whether *kava* is a drug, and thus was the major cause of the offender's erratic driving. The police as the prosecuting agency called as their major witness a psychiatrist who argued that he prescribed *kava* from time to time for patients who were depressed, but that he was not really familiar with the substance in its natural form, as grown in the Pacific. He prescribed pills, produced overseas, which contained a small amount of *kava*, but he was not able to assert the amount of kavalactones, the main chemical ingredient.

The lawyer for the defending Tongan called three witnesses, one a Tongan doctor of community medicine, a Samoan academic who teaches Samoan studies, and myself as an anthropologist who has been conducting research, and published papers on the consumption of *kava* in various Pacific islands (Pollock 1995). These three witnesses argued that the use of *kava* in ceremonials which are such an integral part of western Polynesian society down to the present day is very different from the use of *kava* as prescribed to counter a medical or mental condition in Western societies.

The defendant had been attending a meeting of his Tongan High School Old Boys, convened for those ex-pupils now living in Wellington to celebrate the new millennium. As is proper for any such gathering of Tongans they gathered at a hall to drink a few shells of *kava* and talk. The defendant told the Judge that he drank only six shells (coconut shell) that were less than half full over a two hour period. He does not like the taste of *kava* so asked for a small amount in each shell. The meeting gathered at 8 p.m. and he left about 1 a.m. to drive a couple of his friends home before heading home himself at 3 a.m.

The arresting officer had asked the accused to breathe into "the bag" (used for testing alcohol on the breath) eight times, but could find no result. The prosecution accused him of smelling of petrol substance and being unsteady in his gate, associating these factors with consumption of alcohol or similar substance. The defendant explained that as he works at a printing works, his overalls smelt strongly of the ethanol used in cleaning the presses. Also he was suffering from

gout, which caused him to limp. He was tired as he had been up since 4 a.m. to being work at 6 a.m. and had only eaten a piece of bread and an apple all day.

The judge had to determine whether the accused could be prosecuted under the existing Land Transport Safety Act (New Zealand). That Act does not contain a specific reference to *kava* as one of the four categories of drugs. He acquitted the accused on three grounds: firstly on personal grounds, the accused had spoken carefully and clearly in court, answering all questions fully, and he had been subjected to a drawn out court case that had brought distress to himself and his family. Secondly the judge agreed that there were cultural grounds for the use of *kava*, but he felt these did not rule out its categorisation as a drug. Thirdly, he found that *kava* may be a drug that affects driving, but it was not proven at this time.

Coincidentally a similar case had been heard in the California courts in September 2000. In that case a Tongan (also) had been accused of driving under the influence of a substance, *kava*. But that case also was dropped for insufficient evidence that *kava* is a drug.

These two court cases are a land-mark in the issue of whether *kava* is a drug. The outcome of both tells us that the categorisation of *kava* is by no means clear. The pharmacological evidence contrasts markedly with the cultural evidence.

Pharmacological Studies of *Kava*

The evidence produced in both cases has shown a great variation in the current understanding of the pharmacological properties of *kava*. In a brief overview of 72 citations in the literature (Pollock 2000) I found that the majority of references to *kava* termed it a modern herbal remedy, dietary supplement, or health care product. For example Schulz et al. (1997) include *kava kava* (sic) alongside Ginkgo and Hypericum as psychopharmacological agents. They also note it has a low incidence of side effects, with little or no effect on cognitive performance and visuomotor tests (Foo, Lemon 1997). In its reduced form as a herbal drug or extract it is used for relaxation, enhanced sociability and promotes sleep.

Clinical trials of *kava* and other “health products” have experimented with the efficacy in reducing anxiety (Pittler, Ernst 2000; Scherer 1998). Heinze’s (1997) interest in the therapeutic effect of anti-depressants led him to include *kava* as a “herboreal medicine” that needs further investigation as to just how the properties act on the mind. A recent report in a Melbourne newspaper cited work by the Menzies School of Health Research to quantify brain damage in long term *kava* drinkers in northern Australia (not a community where *kava* was used traditionally). Using techniques developed with petrol-sniffers they found no long term effects on the brain but possible susceptibility to serious infection and heart disease (The Age, May 14, 2001 p.4). Cupp (1999) has noted that as herbal products are not required to be submitted for proof of safety and efficacy under US Food and Drug Administration laws, any side effects and drug interactions are largely unknown.

The pharmacological evidence for any harmful effects on the body are thus yet to be proven. The articles suggest that there is a considerable parallel with commonly consumed substances such as coffee and chocolate, neither of which is listed as a drug. There is ongoing interest in the pharmacological properties, but the case for labelling the substances in *kava* as mind-altering remains unproven.

Cultural Evidence

Kava is widely used in five Pacific societies today in continuity with long-term traditions. Vanuatu, the home of *kava* (Lebot et al.1997), Tonga, Samoa, Futuna as Western Polynesia users of *kava* for rituals (in Pollock 1995) and Pohnpei (Peterson 1995) are the major societies that have maintained the use of *kava* for ritual and semi-ritual occasions. All of these communities have growing communities based overseas in Auckland, Wellington, Sydney and Los Angeles. The practices of *kava* ritual gain new significance as they are an important part of maintaining distinct Pacific identities. Thus *kava* usage has continued, albeit under different circumstances necessitated by modern day living.

The importance of *kava* in those societies has been underlined in a number of ethnographies

as well as in the ethnobotanical work of Lebot et al. (1992). The practice of chewing the root and then mixing the chewed substance with water in preparation for the ritual has fascinated several generations of anthropologists. The ritual itself has frequently been seen as a means of reinforcing the status of nobles and the Tui, or King, in public reinforcement before the rest of the community. The *kava* circle is an integral part of any ceremony in which each participant has an appointed place in accordance with his status vis a vis the chief being honoured. The analysis of the ceremony, and the place of the *kava* root in it has been under much scrutiny (see Pollock 1995, 2001 for the details). A tendency emerged to see the root as having psychoactive properties as the “reason” for the ceremony. But that view has not been confirmed by any indigenous statements. A *kava* ceremony can thus be likened to a tea ceremony in Japan – the processed root is the botanical centrepiece around which social rituals have been developed. The ceremony is thus a cultural expression of social solidarity in which the *kava* plant stands as the symbolic call for reinforcement of social values.

Conclusion

Whether *kava* is a drug is still an open question. The major dilemma in analysis is whether a western overview of drugs as substances which are taken to produce a psycho-active response must override a cultural view of a substance which is part of a ritual reinforcement in certain societies of the South Pacific. The universal versus the relative assessment is again the problematic.

The western view of drugs as both healing, but also likely to be addictive is raised in much of the literature. The negative aspect of drugs is thus one of the concerns raised when *kava* is labelled as a drug. When its narcotic properties are isolated, and its discussion in terms of “dose rates” this is so alien to the experiences of *kava* as expressed in *kava* ceremonies in South Pacific communities. *Kava* is not generally seen as addictive, though some men are cited as over-imbibing, thereby resulting in skin problems, which are readily cured if he stops drinking *kava*.

The drug question is associated with a new

realm of substances that are labelled health remedies or dietary supplements. This again is a western attempt at categorization that provides an ill-fitting category for *kava* as used in the Pacific. It fits only the uses of *kava* in health food drinks, or pill form, such as Kavacalm as sold in Edinburgh, or Kavasedon as sold in Austria. These are readily available to the consumer, though some countries are restricting availability to purchase by prescription only. In New Zealand *kava* products can be bought freely at a health food shop, and beverages containing *kava* are freely available in supermarkets, and service stations as part of the new “Power drink” range. This suggests there is ambivalence about *kava* as a drug.

The category “drug” as applied to *kava* substances seems to be the main issue. I have argued (1995) that *kava* is a powerful substance in its cultural settings in the Pacific. But I have also argued in the same text, and as a witness in the court case, that I do not see it as a drug. Its strong cultural values belie the pharmacological properties. This question will remain as further court cases examine the *kava* substances from many angles. Whether the universal claims of its pharmacological properties are stronger than the relative claims for its use as a social integrator remains to be seen.

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References

Cupp, M.J. (1999) Herbal remedies: adverse effects and drug interactions. *Am. Family Physician* 59, 5, 1239-1244
Cuzent, Gilbert (1983) Archipel de Tahiti. Editions Haere po No Tahiti, in conjunction with La Societe des Etudes Oceaniennes. [Original published 1860]
Foo, H.; Lemon, J. (1997) Acute effects of *kava*, alone



Kavasedon – a medicine registered in Austria

or in combination with alcohol on subjective measures of impairment and intoxication and on cognitive performance. *Drug and Alcohol Review* 16, 2, 147-155
Greenwood-Robinson, Maggie (1999) *Kava, the ultimate guide to nature’s anti-stress herb*. N.Y.: Dell Publishing
Heinze, G. (1997) Pharmacologic development during the last decades. *Salud Mental* 2, 4, 34-38
Lebot, V. and P. Cabalion (1986) *Les kavas de Vanuatu*. Editions de l’Orstom, travaux et documents No. 205, Paris
Lebot, V.; Merlin, M. and M. Lindstrom (1992) *Kava, the Pacific drug*. New Haven: Yale Univ. Press
Lebot, V.; Merlin, M. and M. Lindstrom (1997) *Kava, the Pacific elixir*. New Haven: Yale Univ. Press
Peterson, Glenn (1995) The complexity of power, the subtlety of *kava*. In: Pollock, Nancy J. (ed.) *The power of kava*. Canberra Anthropology, special volume 18, 1 and 2
Pittler, M. H.; Ernst E. (2000) Efficacy of *kava* extract for treating anxiety. *J. Clinical Psychopharmacology* 20, 1, 84-89
Pollock, N. J. (ed.) (1995) *The power of kava*. Canberra Anthropology, special edition, Canberra, Australia
Pollock, N. J. (2000) Brief of evidence, in court case heard by judge Carruthers in Wellington district court, Oct-Nov. Wellington
Pollock, N. J. (2001) *Kava*. In: Pyke and Ornelas (eds.) *Cambridge history of food*. Cambridge: Cambridge Univ. Press
Scherer, I. (1998) *Kava Kava* extract in anxiety disorders. *Advances in therapy* 15, 4, 161-169
Schulz, V.; Hubner, M.; Ploch (1997) Clinical trials with phyto-psychopharmacological agents, a review. *Phytomedicine* 4, 4, 379-387
Singh, Y.N. (1986) *Kava, a bibliography*. Pacific Information Centre, Suva

The Collection of the Department of Ethnomedicine

Alexander Weissenböck

In the year 1999 Prof. Armin Prinz asked me to do research on the department's ethnomedical collection. The Austrian National Bank with its "Jubiläumsfond der Österreichischen Nationalbank" financed the project for two years. So I started, not knowing what a huge amount of work there was to be done. The department's employees and students have gathered most of the pieces of our collection during fieldwork. Sometimes they are sent to us with a short informing note, sometimes they are brought personally. In that case oral information to the origin and character of the objects is provided. The largest part is African origin, since most of our fieldwork is done in Africa. But we have items from regions of all continents. The collection consists on the one hand of objects concerning medicine, nutrition or medicinal instruments on the other hand botanical, mineral or zoological drugs and objects that are used in or are related to rituals. Apart from photographic and film material out of field research, there is artwork that illustrates medical procedure or beliefs related to health and disease.

On account of the many different things that I'm doing, the first year has passed quickly. One task is the examination and sorting of the collection's artifacts and the botanical and zoological substances. Another task is research on the origin of the objects and drugs and inquiries concerning the circumstances of the acquisition. I'm trying to find out how the objects or drugs are used in therapy at the time acquired and if they are still used at present. I'm investigating in what kind of medical system or context the drugs or instruments are used and to which kind of diseases and symptoms they are connected. I do research on the objects' consistence and try to determine botanical or zoological substances and specimen. I also collect pharmacological data on medicinal plants.

Another part of my work is the production of digital pictures of all objects for the database I started to establish. This database will include

the collected information and photographic material of the objects of the department's collection and all other photographic and film material resulting from the past and future fieldwork done by my colleagues. To make the older analog material available to the database it has to be converted into digital data. This is possible with the institute's equipment that demands the expert knowledge I had to acquire. In the database, which is based on "Adobe File Maker", all kind of data will be organized in a way that makes it for further research and educational purposes available.

All analog picture material will be stored digitally. Old 16 mm film material will be converted to digital video or DV-format. A great part of the ethnographic films done in the seventies and eighties by Professor Armin Prinz is still not edited. Luckily we are able to do the converting and editing with the department's video equipment. There is also new video material from our projects in Senegal, Ethiopia and Tanzania that is only partly edited. The scientific analysis of the photographic and film material will be made in the future.

Let me add a few words to the value of such database for scientific work especially in medical anthropology. The use of visual material is well established in scientific work as a means of documentation and as material for analysis. The incorporation of photographic and video materials and the presentation of information in graphical form enlarges the possibilities of research and its results. The comparison of different phenomena of the same kind works faster.

The picture of the symptoms of a skin disease – for example – gives a much clearer impression than a verbal description. Ritual activity, as a cultural form in which movement, sound and vision as well as timing are of great importance, is best documented in film, a medium that is able to record all these elements and make analysis much easier. Also all material in the database can be made available to persons

interested. The publishing of articles or other scientific work can be facilitated when pictures – ready for printing and transference into documents – are available and easy to find.

Here are a few examples of the pieces in our collection. I will start with drugs made from zoological substances. There are air-dried



Tockus erythrorhynchus

animal parts Armin Prinz bought on the market of Bamako/Mali in 1993. There are different animal heads, for example a toko (*Tockus erythrorhynchus*), two heads of vultures (*Aegypius tracheliotus*) and (*Gyps fulvus*), the head of a jackal (*Canis aureus*) and two lizard heads (*Varanus exanthematicus*) and (*Varanus griseus*) as well as the head of a monkey (*Erythrocebus patas*). There is the paw of a baboon (*Papio papio*), the head of a crocodile (*Crocodylus niloticus suchus*) and the body of a



Aegypius tracheliotus

bat (*Eidolon helvum*). These dried animal parts are used in Arabic humoral medicine in powder form. The idea of humoral medicine is to re-establish humoral balance by application of humoral effective substances like a certain food or drug. An excessive amount of one humoral quality is neutralized by the application of a substance with the opposite quality. Animal



Gyps fulvus

substances are also used in Chinese and Japanese traditional medicine, of which we have some examples in the collection. There is a remedy for better blood circulation – Lujiaojiang – that contains turtle-glue, donkey hide gelatin and deer horn glue. Most of the Chinese remedies for better digestion contain the very expensive bear-liver or ox-liver, if cheaper.



Varanus exanthematicus

A large section of our collection consists of the herbal drugs coming from all over the world. I will pick out a few examples to give an impression what it contains. There is the Periwinkle (*Catharanthus roseus*) collected by Carola Wala-Ingrisch in St. Lucia in May 1995 and



Varanus griseus



Erythrocebus patas

used by a female herbalist from South Africa, living in St. Lucia for several years. Inside the plastic bag containing the herb is a letter with the description: "Local name: cacapoule; Botanical name: *Catharanthus roseus*; uses: A lot of research has been done on this herb and it is proved to contain elements that fight cancer. Traditionally it is also used for diabetes and high blood pressure. Method: Draw 1 tbsp of the herbs in a teacup of water and drink once or twice a day unsweetened or sweetened with honey."

Periwinkle is, as the letter tells, traditionally used as a remedy for diabetes and high blood pressure. It is mainly used as a watery extract.



Crocodylus niloticus suchus

On the other hand it is an example for the use of traditionally used herbs in modern medicine. Periwinkle contains the substances vinblastine and vincristine, which are used in modern medicine as antitumor agents.

Another well-known source for herbal remedies is Aloe vera. We have a bottle of Aloe-Juice that was collected by Carola Wala -Ingrisch in St. Lucia. An inscription on the bottle says: „Roots remedies; Aloe vera juice; (BITTER);

drink 4-8 tablespoons 2-3 times daily. Children over 5: 1/2 or 1/4 dose; note: a little sediment is normal and not a sign that the product is spoilt.“ Aloe-juice is a remedy for good digestion and appetite and for the cleansing of the inner organs like stomach, liver, kidneys and the bladder. It is also used for diabetes, stomach ulcer and flatulence.

Another section consists of means supposed to protect from evil influence or sorcery. Typical for Latin America are fragrances or sprays for good fortune, success in love or against all sort



Eidolon helvum

of sorcery or black magic. There are almost always suggestions to pray to God or a certain Christian Saint in the instructions. An example for this kind of mixture is the "Protection from evil" spray that was collected by Armin Prinz on the market of Basse Terre in Guadeloupe. It is an industrial made spray with inscriptions in English and Spanish (*contra el mal*) with the following instruction for usage: "Shake well. Hold can upright and point nozzle away from you. Aim upwards and spray all areas of your surroundings. Let us pray. Make the sign of the cross. Air refresher, deodorizer. Does not have supernatural powers." The spray is supposed to protect from the powers of evil. Syncretistic Christian religious elements have been connected with the possibilities of industrial production to form a new article for protection from evil. According to law the description says that the spray does not have supernatural powers.

Another part of the collection contains medicinal devices like the Sudanese cupping-horns made of ox-horn. Cupping-horns are designed very simply and effectively. The hollow horn has a small hole on its point, through which the healer sucks the air to produce a partial



Lujiuojiao

vacuum. A small ball of bee wax, prepared in advance and stored in the healer's mouth, is used to close the hole and keep the air out of the horn. This technique is used for drawing blood to the surface of the body. Cupping-horns are used in traditional Arabic medicine where they are called *qarn*. The technique of cupping is old and wide-spread. We also have Chinese cupping-vessels in our collection, made of glass. Here the vacuum is produced in a slightly different way. The air inside the vessel is heated



Catharanthus roseus

over a flame. After the vessel is put on to the patient's body, the air inside cools and therefore shrinks, producing a partial vacuum, just like it was used in Europe.

Another interesting object is the wooden enema-syringe from the Bakongo in Congo. It is used for the injection of liquid into the intestine by way of the anus. The cone-shaped hollow body is inserted into the bowels on its narrow end and filled with liquid before the healer is closing the wide end with his mouth to blow into the syringe to produce an air pressure, which is

forcing the liquid into the patient's body. A glass painting from Senegal, which is part of our collection of paintings, illustrates that process very fine.

The contents of the pictures in our African art collection, which consists mainly of oil and glass paintings, illustrates, on the one hand, the healthcare situation in African countries while on the other hand it shows healing procedures, ritual action and beliefs connected with healing, sorcery, mythology and medicine (see last page).

One interesting example is an oil painting from Sudan that tells the old Sudanese tale of Tajoj and Mahalag and illustrates some aspects of



Aloe Vera Juice

Protection from Evil

Arabic medicine. The story tells of the beautiful girl Tajoj who is married to the brave and famous warrior Mahalag. Rivals of Mahalag accuse the innocent Tajoj of adultery. The jealous husband believes in the unjust accusation and parts from his wife who plans on going back to her parents. But Mahalag's love was so strong that he couldn't bear the separation and became sick. When he was almost dying Tajoj came back to nurse him. This moment is illustrated in the painting. The scene shows the inside of a tent with the suffering Mahalag on his bed with Tajoj sitting by his side holding his hand. On the wall behind him we see the attributes of his former heroism. There is a sword and dagger hanging on the tent's wall. On his right arm he wears an amulet that is called

hijab in Sudanese Arabic. The *hijab* is a chain made of small leather bags in which letters, with written verses of the Koran, are sewn. This amulet is a relic of his better days; it is the kind of amulet the *sheik* (the Islamic healer) makes for warriors to make them brave and victorious in war. Around his neck he wears another amulet referring to his sickness and also made by the *sheik*. It is the same kind as the other one, but with Koran verses that are especially chosen to cure his illness. By his side of the bed sits the beautiful Tajoj clothed in green cloth. She wears her hair in thick black plaits under a green veil. Her arms and legs are embellished with golden bangles and her forehead and ears with jewelry. To the left side of the bed rests the *sheik* on a cowhide that is called *taqaroba*. He is wearing white breeches and a prayer-chain over his breast. His facial expression shows that he is praying. At the same time he is writing a prescription. These prescriptions are copies from the Koran, written with special ink that is a mixture of ashes and Gummi arabicum. Later on the, prescription is put into water and the ink washed out. Afterwards the *sheik* gives that water the patient to drink. In front of the *sheik*, on the cowhide, lays the Koran and beside it stands an earthen smoke-vessel, called *mubkhar*, from which healing smoke rises. On the floor next to the bed we can see the *ibriq*, a water-vessel necessary for the *sheik*'s cleansing

rituals and for that reason an important item. He takes it with him wherever he goes. On the right side beside the *ibriq* stands a milk bowl. It is made of the fruit shell of the *karam* tree. In the left corner behind the *sheik* stands a big earthen water pot called *zir*. In the very right corner of the picture we see a wooden desk on which the Koran is stored when it is being used. The bed is made of a wooden frame on which leather tape is woven into a net. The wood for the frame also comes from the *karam* tree. There is a sentence, out of the story, written in Arabic letters under the scene. Tajoj is talking to the *sheik*, reminding him not to be attracted by visitors and spectators and to concentrate on the writing of the prescription.

The glass paintings from Senegal show, on the one hand, how modern medicine is seen and valued by Africans, or at least by the painter. On the other hand they illustrate traditional healing practices or the conflict between both systems. The painter Mallo, who made most of our pictures, understands how to show the harsh conditions of sickness and treatment with a subtle sense of humor. There are pictures of almost every branch of modern medicine complete with French text. There is dialogue between patient and doctor and the unspoken thoughts of both, as well as the critical thoughts of the spectators.

Psychoanalysis in sub-Saharan Africa – My own research 1959 to now

Gerhard Kubik

Gerhard Kubik is cultural anthropologist, psychoanalyst and ethnomusicologist. He earned his Ph.D. in 1971 at the University of Vienna. In 1995 he was elected to Honorary Fellowship of the Royal Anthropological Institute of Great Britain and Ireland.

For an accurate assessment of the achievements of psychoanalysis in sub-Saharan Africa it is necessary to consider psychoanalysis' two different objectives separately:

1. Psychoanalysis as an applied science aiming at the psychotherapy of individuals. This

creates specific doctor/patient relationships as originally described by Sigmund Freud (cf. the phenomenon of transference etc.)

2. Psychoanalysis as a set of scientific insights, i.e. psychoanalytic theory. Also originally developed by Sigmund Freud and expanded by others, psychoanalytic theory helps researchers working on human interaction within culture-specific contexts as a resource for interpretive models. It enables us to understand human behavior in different cultures at the unconscious level and uncover unconscious mechanisms in cross-cultural relationships.

As a researcher in cultural anthropology I have been working in both realms, and in no less than eighteen African countries, since 1959; more recently also in African-American communities of Brazil and the United States (see bibliographic references). Certainly, I am not the first researcher who has applied psychoanalytic theory to African cultural phenomena. There was from the late 1920s to the 1950s, the so-called Culture & Personality School in American cultural anthropology (e.g. LeVine's work among the Gushi in Kenya), there were the writings of Géza Róheim, and in Tanganyika Hans Cory carried out some little known studies of dream interpretation and puberty initiation ceremonies. The Swiss school of ethnopsychanalysis with Paul Parin and Fritz Morgenthaler, especially their work among the Dogon and the Anyi in West Africa, is perhaps the best known attempt to apply psychoanalytic theory in Africa. In addition it has only been realized recently that many traditional medical practitioners in sub-Saharan Africa work from theoretical concepts (expressed in their own languages) that can be transliterated into psychoanalytic terminology.

My own approach to psychoanalytic research in Africa developed from my early acquaintance (at age sixteen) with the work of Sigmund Freud in Vienna, my place of birth. Freud's findings modeled and reinforced my conviction that the foundations of the human mind are the same everywhere, irrespective of culture. In my work with ethnic groups and on ethnicity, therefore I have never looked for ethnicity-specific definitions of the mind. I did not try to construct a special psychology of "the Maasai" or "the Yoruba" or "the Baganda", let alone "the Africans", "the African Americans" or "the Whites". When I analyzed „Basil“ (pseudonym), a youngster of about eighteen in Tanganyika in 1962 and "Noa" (pseudonym), aged 35, in Cameroon in 1969, to help them to come to terms with personal problems, I applied Freud's structural model (the Ego, the Id and the Super-Ego) and Sigmund and Anna Freud's concepts of defense-mechanisms, repression, projection, denial etc., symptom formation, transference and counter-transference. I considered my clients in no way different from myself psychologically, though their personal life-experiences to date and their childhood enculturation processes were, of course,

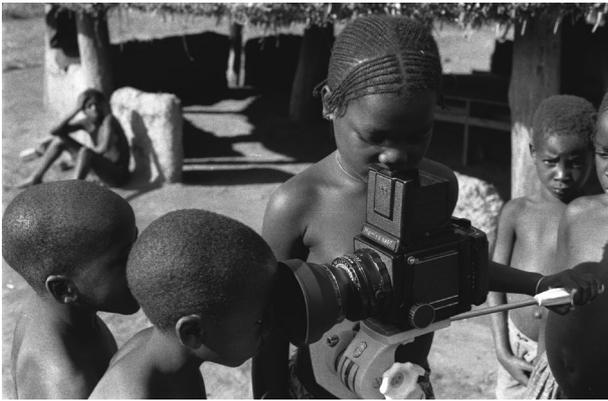
different in each case, as they differed from mine.

My theoretical insights and practice of psychoanalysis in African cultures, both rural and urban, and particularly in areas where I had become fluent in the local languages has reconfirmed the importance of cultural variability, and how cultural variables influence unconscious contents and the libidinal attachments in individuals. However, the basic depth psychological mechanisms remain the same universally, they operate in the same manner everywhere. Whether the Oedipus complex is present or absent, for example, in a society with a matrilineal social organization (cf. the criticism by Bronislaw Malinowsky and others), is therefore a question on the sidelines. It is not central to psychoanalytic theory and can preferably be answered case by case. The same applies to the phase concept about childhood development (i.e. oral → anal → phallic stages). Here, cultural variation plays a significant role. In many African initiation rites, the aim is to achieve a restructuring of an individual's personality during the late latency period or at adolescent stage. Nothing really comparable to African age-grade related initiation is found, for example, in present-day European societies, with the exception perhaps of Bosnia and some other areas in the Balkans. Early psychoanalytic theory held that Super-Ego formation was about completed at the onset of the latency period. Recent research has not confirmed this neither for Africa, nor for Europe; cultural variation seems to be the more important factor.

However, the fact of culture-specific variation does not invalidate the basics of psychoanalytic theory. From Japan to Angola we may encounter individuals with an obsessive-compulsive disorder or a post-traumatic stress syndrome. What is different in these cases is how such manifestations are expressed, what symbols are used to express them and how the surrounding society interprets them.

Some of the results of my psychoanalytic work in Africa have been published, notably those relating to cross-cultural comprehension and the *mukanda* initiation school in Angola. What

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Contributions to Visual Anthropology

P[^]ogax, the ritual bath of the Seereer

Armin Prinz

Monday morning, the 20th December 1993, in Simal, a small village at the shore of the river Saloum in the region of Fatick/Senegal. The Seereer healer Diam Dog starts beating the naked upper part of the body of a woman who is sitting in front of him, with a live chicken. Its feathers are flying around. Blood from the poor animal is already covering the black skin of the patient. More and more vigorously the healer slaps her with this "live" whip. Slowly the cries of the tortured chicken cease. In a monotonous voice the old man urges the *pangool* to remove the illness from the intestines of the woman and to transfer it into the guts of the chicken. Patiently and humbly, with her head bent, the woman endures the ceremony.

The wall and roof of the holy area is built with woven mats which are stretched between the stems of ancient trees, thus forming a protected space. In the middle stands a huge wooden tub carved out of one piece of wood. It is filled with the holy water of the *pangool*. Pieces of wood that are believed to have magical power are soaking on the surface.

This sacred place is the residence of the *pangool* who is said to be able to heal intestinal diseases. According to Seereer religious beliefs, the *pangool* are animistic principles created by God *-roq*. Every place, every river, every village, institutions like tribunals, as well as the world of ancestors have their own *pangool*. In certain areas like here in Simal, they are known for curing special diseases.

The old man continues his ritual treatment. Quickly he cuts the head and legs off the hen and throws them into the corner of the room. The remainders of several ceremonies are visible there. The torso of the hen is then cut open. The

healer takes out the intestines and unfolds them artfully with his knife in front of the patient's eyes. He searches for alterations and finds part of the colon thicker than usual. He lifts it carefully and starts to explain to the patient what kind of disease she is suffering from and what the causes may be. During this therapeutic talk the psycho-social background of her disease is considered, possible problems with her family and neighbours are discussed.

After that the intestines of the hen are also thrown into the corner as a sacrifice to the *pangool* who will get them in the night. The *pangool* then slip into the bodies of varanes or small beasts of prey. The torso of the hen is given to children who are waiting outside the shrine. Laughing, they run into the bush to have their roast prepared on a small fire.

The *p[^]ogax*, the ritual bath, is the final stage of the treatment. Muttering words of conjuration to the *pangool* the old man with a calabash scoops cold water over the shoulders of the woman. Freezing but devoted, the woman washes the blood of the sacrificed hen off her skin. She is now convinced to have overcome the disease. Diam Dog is famous for his treatments. People often come from far away, not only Seereer but also from other ethnic groups. A lot of clients wait outside, everybody with a chicken in his hands. Often 20 to 30 people, one after the other, are treated in one morning. Since nine generations the family of Diam Dog has been doing this ancient healing ritual on the same place. The huge ancient trees – in this dry land a rarity – give it a very special aura. Visitors are often surprised by the coolness of the shrine. They had to overcome many miles of dusty steppe and salt-crustated lagoons, many on foot, few who can afford it by two-wheeled horse cart. According to the traditional Seereer division of the week, the treatments are done only on Mondays and Thursdays. Only these two days are reserved to communicate with the *pangool*.



Compartment constructed from woven mats in which the ritual bath is performed. Places like this with old trees near the brackish water of the river Saloum, are often believed to be the homestead of powerful *pangool*, the animistic principles in Seereer religion.



The old Seereer healer Diam Dog is performing the healing-ceremony already in the ninth generation. He is known for his expertise far beyond his tribal area and patients come not only from Senegal but also from Gambia. He starts the *pogax* - ritual by beating the holy water in a wooden tube with a calabash. On the surface of the water woods of magical importance are drifting. In a monotonous voice he is praying to the pangool to help him treat his patients.



With a living chicken he is severely beating the patient who is suffering from intestinal disorders. During this torture the illness should be transferred from the belly of the patient into the intestines of the animal.



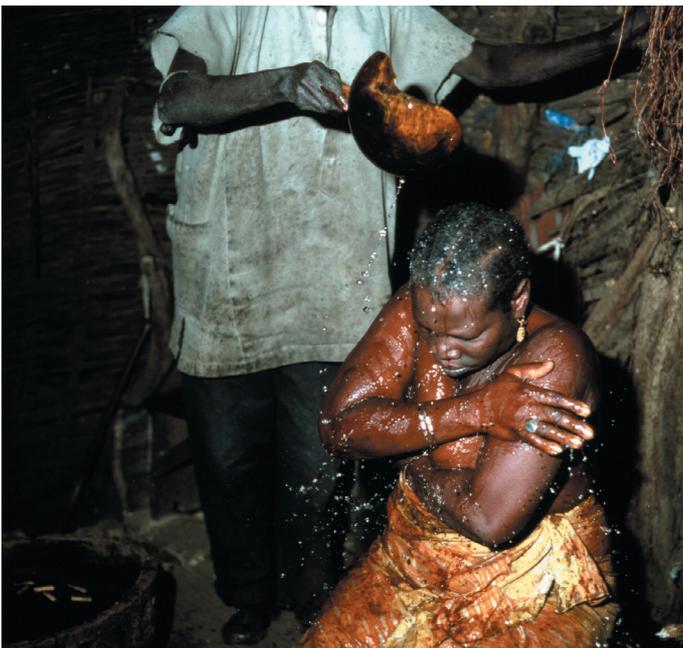
Afterwards the chicken is slaughtered. Head and legs of the animal are cut off and the abdomen is opened.



In one part of the intestines the healer has discovered a thickening of the gut. This is the proof that the illness was successfully transferred.



Now the healer is explaining to the patient the cause of the disease, specially the underlying social disorder, and how to handle these problems in the future. This life-counselling is the important therapeutical impact of the ritual.



The ritual ends with the cleaning and protecting bath. The cold water is poured over the patient. Herewith the ceremony is finished.



At the floor are the heads and legs of the sacrificed chickens as an offering to the *pangool*.

**Psychoanalysis in sub-Saharan Africa –
My own research 1959 to now**
continued from page 12

follows is a summary of where and when I carried out psychoanalytically oriented studies in sub-Saharan Africa, and what has been written up so far.

1959/60

Field-study on cross-cultural projections of unconscious contents in a colonial social setting; European versus African projections (and the reverse); processes of transference outside clinical contexts. Area emphasis: Uganda, Tanganyika, Congo (ex-Belgian), southern Cameroon and southern Nigeria.

1961-63

- a) Psychoanalytic field-study of the impacts of racial segregation (“color-bar”) in eastern and southern Africa, notably in Kenya, Nyasaland (now: Malawi), southern Rhodesia (now: Zimbabwe) and South Africa.
- b) Self-analysis
- c) Psychoanalysis of “Basil” in Tanganyika (now: Tanzania) with extensive materials on dreams and visual expression (drawings)
- d) Discussion of some of my findings at the African Writers’ Conference at Makerere University, Kampala, in 1962
- e) Assessment of the ideology of the Portuguese “Serviço Psyc-Social” which was operating in Mozambique.
- f) Field-study of the personality of the traditional healer and “prophet” Chikanga Chunda in Nyasaland who had become famous as far as southwestern Tanganyika for his success in identifying wizards and witches.

1963-64

- a) Psychoanalytic field-study of dreams by Yoruba-speaking artists in south-western Nigeria;
- b) Field-study of a *bwiti* syncretist religious community in Oyem, Gabon, and the personality of its leader.

1965

After personal experiences of initiation as a participant anthropologist in Mbwela/Nkhangala speaking communities of southeastern Angola, I began to use “psychoanalytic conversation” systematically in the villages to elicit basic affective relationships within families in a matrilineal society in which

the maternal uncle plays a significant role. This was followed by a psychoanalytic field study of *mukanda* boys’ circumcision schools over a period of five months, in connection with the associated masking traditions, and initiation into secret societies. (see publication references).

1966

Jointly with Maurice Djenda, Central African Republic:

- a) Field-study of symbolism, taboo and masking traditions among peoples of the Upper Sangha river area, including two pygmy groups;
- (b) applied psychoanalysis of individuals who had formed a “colonial neurosis”

1967

Personality studies of artists (such as Daniel Kachamba) and traditional healers (such as Nchimi Chikanga Chunda) in Malawi.

1969-70

Analysis of “Noa” (pseudonym) in Cameroon; studies of *vodu* religious concepts in Togo.

1971-87

Continuation of my *mukanda* studies on repeated field trips to Luchazi speaking communities in northwestern Zambia, similar culturally to those I had studied in Angola in 1965. Study of the cognitive aspects of enculturation processes in children, as promoted by oral literature activities. Psychoanalysis of a male adolescent with “horror femini”. Joint studies of graphic expression with members of the Ngunga family and co-workers such as Mose Yotamu.

1982 - 1987

Psychoanalytic research on initiation ceremonies, masking traditions, witchcraft and general patterns of interpersonal relationships, carried out jointly with my wife (the late) Lidiya Malamusi, and her brother, Moya Aliya Malamusi (cultural anthropologist) among families in a matrilineal social setting, as among the Nyanja, Chewa, Mang’anja, Lomwe, Yao and others in southern Malawi.

1982-1999

Intra-family studies in Malawi, Namibia and other places in cooperation with Moya Aliya Malamusi (Malawi), Mose Yotamu (Zambia), Kishilo w’Itunga (Congo/Zaire), Marcelina Gomes (Angola), Mario Ruy de Rocha Matos (Cabo Verde) and other colleagues.

2000

Psychoanalytically oriented studies in the former Kingdom of Buganda (Uganda) on totemism

Some publications relating to psychoanalytic theory

1971 Zur inneren Kritik ethnographischer Feldberichte aus der kolonialen Periode. Wiener Ethnohistorische Blätter, 2, 31-41

1991 Extensionen afrikanischer Kulturen in Brasilien. Aachen: Alano

1993a Makisi – Nyau – Mapiko. Maskentraditionen im Bantu-sprachigen Afrika. München: Trickster

1993b Die mukanda-Erfahrung. Zur Psychologie der Initiation der Jungen im Ostangola-Kulturräum. In: van de Loo, Marie-José; Reinhart, Margarete (Hrsg.) Kinder. Ethnologische Forschungen in fünf Kontinenten. München: Trickster, 309-347

1994 Ethnicity, cultural identity and the psychology of culture contact. In: Behague, Gerard (ed.) Music and Black Ethnicity. The Caribbean and South America. New Brunswick: Transaction Publishers, 17-46

1999 Mukanda – boys' initiation in eastern Angola: transference, countertransference and taboo symbolism in an age-group related ritual therapeutic intervention. Lecture given at the 2nd World Congress for Psychotherapy in Vienna, on July 8. (Text available from the organizers)

2000a Symbolbildung und Symbolhandlungen. Ethnopsychologische Forschungen bei den Mpyemō. (Zentralafrikanische Republik, 1966), *Anthropos* 95, 385-407

2000b Masks from the lands of dawn. The Ngangela peoples. In: Herreman, Frank (ed.) *In the Presence of Spirits. African Art from the National Museum of Ethnology*, Lisbon/ New York: Museum for African Art, 123-143

2001a Ein Groer-Witz. Gedanken in Anlehnung an Sigmund Freud's 'Der Witz und seine Beziehung zum Unbewußten'. *Medien & Zeit* 16, 1, 42-47

2001b Der mütterliche Onkel als Tod. Die Mythe von Kintu, Begründer der Dynastie des Königreiches Buganda In: Tunis, Angelika (Hrsg.) *Faszination der Kulturen*. Festschrift Armand Duchâteau. Berlin: Reimer, 181-218

Anthropology – My Vocation in Life

Jun Takeda

I have had a long-term dream to stay abroad since my childhood, not in advanced countries, but developing societies with a warm climate. It may be caused by the natural environment of my birthplace Yamagata, located in northern Japan, where we have a heavy snowfall every winter, although I enjoyed skiing and skating very much.

When I was a student at the University of Tokyo, I had a chance to read a book titled "Tristes tropiques" written by Claude Lévi-Strauss. It gave me a great impression of the Amerindian people who live their innocent way of life. Then it made me make up my mind to carry out anthropological field works.

I took my first step with the late Prof. Dr. Hitoshi Watanabe, Department of Anthropology, Faculty of Science, University of Tokyo, as a graduate student for a master course in 1968. He taught me the attractiveness of studying ecological anthropology during my graduate and postgraduate student years in the university. He passed away in 1998, but had made his lifework in the study on the Ainu people in Hokkaido, Japan, since his student days and had made a lot of important contributions to

the reconstruction of hunting-gathering way of life of the Ainu. It was one of his brilliant assignments that he attended the international hunter-gatherer symposium held in Chicago, USA sponsored by Wenner-Gren Foundation for Anthropological Research in April 1966 and gave an oral presentation of the Ainu. The contributions to this symposium were published later as a book titled "Man the Hunter" edited by Richard B. Lee and Irven DeVore published by Aldine Publishing Company in 1968. Then he was elected as a member of "The Explorers Club" in New York in February 1980.

Studying under his supervision, the outline of my master thesis was published in the *Journal of Human Ergology* (1) and in the books edited by him (2,3).

Meanwhile, the demographic trends, characteristics and ecological backgrounds of the Ainu in the transition of their subsistence from hunting-gathering to settled farming after the 1880s was also re-examined and co-worked (4).

While I was a postgraduate student as a candidate for a Doctor of Science, Dr. Jun'ichiro Itani, Emeritus Professor of Kyoto University

took me to Tanzania, East Africa. He was awarded the Thomas Huxley Memorial Lecturership in 1984 for his splendid primatological and anthropological research over a long time. I learnt many lessons and wisdom from my experience with him in the Tanzanian study. It was my first visit to Africa and I studied the Tongwe people living in the woodland savanna for 10 months in 1972-73. I was greatly impressed with their subsistence strategy of slash-and-burn agriculturalists through this research with special reference to their honey collecting activities and ecological backgrounds (5).

I obtained a teaching position in the Department of Human Ecology, Faculty of Health Sciences, University of the Ryukyus, Okinawa in May 1974, which gave me a great opportunity to study the physical characteristics, ecological-anthropological aspects and local foods of a fisherman group called the Itoman (6, 14) and coast-dwellers facing coral reefs and reef margins in Okinawa (15, 18).

At the same time, I carried out twice pieces of scientific research on the Ngandu people living in the tropical rain forest in the Congo (formerly called Zaire) basin, Central Africa in 1975-76 and 1977, focusing on their subsistence strategies (19, 29).

I studied the Lamba people who are living in the northern part of Togo, West Africa, three times in 1980-81, 1982-83 and 1984 in order to elucidate the subsistence strategies in a belt of the Sudan Savanna (30, 31).

During these times, full of youthful energy, I could carry out my fieldwork in Africa for a long time. However, as I began to feel the physical limitations caused by my ageing, I began to take another scientific research on the people in Oceania inhabiting along the brackish water zones, mangrove and coral reef ecosystems.

I changed my teaching position to a Senior Curator in the Division of Ecology, Museum of Nature and Human Activities, Hyogo in April 1993. I had the rare experience of the big earthquake (the Great Hanshin Earthquake) which hit the Kansai Metropolitan area causing great damage in the Kobe area in the early morning of January 17, 1995. I could gain a

deeper understanding of natural history and greater observations of human beings during four years' work in this Museum. I had my first experience to display a special exhibition titled as "Seashells: Gifts from the Sea: Seashells with Special Reference to Humans and Nature" in March 25 to June 18, 1995 (32) and helped to make a contribution to publishing a guidebook (33).

Working in the museum, I studied the Cook islanders living in Central Polynesia (34, 37) and the Palauan Islanders in Micronesia on coral ecosystems (38, 39).

In April 1997 I obtained the present occupational position in the Laboratory of Ecological Anthropology and Marine Ethnobiology, Department of Resource Management & Social Sciences, Faculty of Agriculture, Saga University, Kyushu, which gave me a valuable chance to study the people living along the tidal flats both in the Ariake Sea, Japan, and in the western part of the Korea Peninsula in Korea (40, 44). Carrying out field studies both in Japan and Korea, I am also engaging in the study on Yapese Islanders in Micronesia (45), the Solomon Islanders (46) and Fijian Islanders with special reference to the ecological anthropological aspects of mangrove ecosystems in Melanesia.

I am now thinking that more detailed and long-term field studies will be needed to make a significant contribution to ecological anthropological work: I am sure that it will give an important clue for us to reconstruct transitional phases of our ancestors from a hunting-gathering economy to a food-producing economy. Human food-procuring strategies have been one of the important factors to solve the problems of human evolution itself.

Finally, I am now very happy to have been endowed with good professors and friends around me in the past. I am also greatly indebted to many informants at my study sites in the past and present.

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- 1 J. Takeda (1972) An ecological study of the hunting activities of the Matagi, Japanese traditional hunters. *J. Human Erg.*, 1, 167-187
- 2 J. Takeda (1977) Bear hunting activities of the Matagi, traditional hunters of northern Japan. In: H. Watanabe (ed.) *Human activity system: Its spatiotemporal structure*. Univ. of Tokyo Press: Tokyo, 297-230 (in Japanese)
- 3 J. Takeda (1977) The Matagi hunter in Akita Prefecture and the locomotion and postures observed in bear hunting activities. In: H. Watanabe (ed.) *Ecology in Anthropology Series*. Yuzankaku Publishing Co.: Tokyo, 117-132 (in Japanese)
- 4 K. Omoto, K. Yoshida and J. Takeda (1997) Ethnicity survived: the Ainu of Hokkaido. *Human Evolution*, 12, 1-2, 69-72
- 5 J. Takeda (1976) An ecological study of the honey collecting activities of the Tongwe, western Tanzania, East Africa. *Kyoto Univ. African Studies* 10, 213-247
- 6 S. Ohyama and J. Takeda (1980) A study on SCUBA diving of local fishing community in Okinawa. *Health and Human Ecology* 46, 3, 130-138
- 7 J. Takeda (1992) Seasonality and change in traditional fishing patterns in Minatogawa, Japan. *South Pacific Study* 13, 1, 107-129
- 8 T. Inaoka and J. Takeda (1992) Work history, health conditions and hearing loss of Ishigaki Fishermen. *Jpn. J. Hyg.* 47, 5, 923-933 (in Japanese with English abstract)
- 9 J. Takeda (1992) Primitive fishing methods in a coral ecosystem of the Ryukyu Archipelago. *J. Anthropol. Soc. Nippon*, 100, 2, 234
- 10 J. Takeda and T. Toyomasu (1992) Gathering economy of a reef flat with special reference to kachi (stone tidal weirs). *J. Anthropol. Soc. Nippon*, 100, 2, 235
- 11 J. Takeda and R. Asato (1992) Utilization and toxicity of fish-stupefying poisons. *J. Anthropol. Soc. Nippon*, 100, 2, 235
- 12 J. Takeda (1993) The Ikei Islanders: Fishing practices in an Okinawan coral ecosystem. *South Pacific Study* 13, 2, 211-234
- 13 J. Takeda (1993) Seasonality and change in traditional fishing patterns in Japan. *Annals of Human Biology* 20, 1, 95-96
- 14 J. Takeda (1993) Rain and drought in the traditional societies of the Ryukyu Islands. *Abstracts of XIII International Congress of Anthropology and Ethnology* 443
- 15 J. Takeda (1994) Plant phenology, animal behaviour and food-gathering by the coastal people of the Ryukyu Archipelago. *Humans and Nature* 3, 117-137
- 16 J. Takeda and S. Ohyama (1994) Man and crabs in Yaeyama folk song: crab-species identification and folk zoological background. *Humans and Nature* 4, 99-124
- 17 J. Takeda (1994) Foraging economy on reef flats: traditional diversity of foraging activities in the coast-dwelling people of the Ryukyu Archipelago. In: *Counsel of Nine Learned Sciences* (ed.) *Cultural homogenization of Japanese communities*. Heibonsha: Tokyo, 51-68 (in Japanese)
- 18 R. Asato and J. Takeda (1997) Food varieties used in the cookeries of Okinawa-tofu (soybean curd). *Humans and Nature* 8, 83-92 (in Japanese with English abstract)
- 19 J. Takeda (1984) Hunting, hunting rituals and the distribution of meat of the Ngandu forest people. In: Itani, J. and Yoneyama, T. (eds.) *The study of African culture*. Akademia: Kyoto, 227-280 (in Japanese)
- 20 J. Takeda (1987) Food ecology of the Ngandu forest people: their subsistence and food-intake pattern. In: Wada, S. (ed.) *Africa: its ethnological study*. Dohosha: Kyoto, 1071-1137 (in Japanese)
- 21 J. Takeda (1990) The dietary repertory of the Ngandu people of the tropical rain forest: An ecological and anthropological study of the subsistence activities and food procurement technology of a slash-and-burn agriculturist in the Zaire River Basin. *African Study Monographs, Supplementary Issue No. 11*, 1-75
- 22 J. Takeda (1991) Life of the Ngandu as viewed from their rituals and observed in birth, marriage and death. In: Tanaka, J. and Kakeya, M. (eds.) *Natural history of mankind*. Heibonsha: Tokyo, 323-337 (in Japanese)
- 22 J. Takeda (1992) People and life in Africa with special reference to their food-procurement strategies. *Liberal Arts* 6, 3-20 (in Japanese)
- 23 J. Takeda and H. Sato (1993) Multiple subsistence strategies and protein resources of horticulturalists in the Zaire Basin. In: Hladik, C.M. et al. (eds.) *Tropical forests, people and food: Biocultural interactions and applications to development*. UNESCO, Parthenon Publishing Group: Paris, 497-504
- 24 R. Asato and J. Takeda (1995) Vitamin C content of representative plant food used by horticulturalists in the Zaire Basin and its evaluation. *Humans and Nature* 5, 13-24
- 25 J. Takeda (1996) The Ngandu as hunters in the Zaire River Basin. *African Study Monographs Suppl. Issue No. 23*, 1-61
- 26 J. Takeda and H. Sato (1996) *Strategies de subsistence et apports en proteines de regimes alimentaire des cultivateurs Ngandu et Boyela de la Cuvette Centrale du Zaire*. In: Hladik, C.M. et al. (eds.) *L'Alimentation en foret tropicale: Interactions bioculturelles et perspectives de development*. UNESCO: Paris, 771-780
- 27 J. Takeda (1997) Disease and healing system among the Ngandu in the tropical rainforest of Zaire: traditional utilization of fauna and flora. In: *Proceedings of the 6th International Symposium on Traditional Medicine in Toyama 1997*, 165-177
- 28 J. Takeda (1998) Plants and animals used on birth and death of the Ngandu (Bongandu) in central Zaire. *African Study Monographs Suppl. Issue 25*, 135-148
- 29 J. Takeda (2000) Folk medicine and the traditional utilization of plants and animals used by the Ngandu forest people In: Matsui, T. (ed.) *Natural anthropology*. Yojushorin: Okinawa, 309-344 (in Japanese)
- 30 J. Takeda (1983) The Lamba and their food. In: Ohtsuka, R. (ed.) *Contemporary anthropology: Ecological anthropology*. Shibundo: Tokyo, 208-216 (in Japanese)
- 31 J. Takeda (1990) The food-procurement technology of the Lamba people in the Sudan Savanna with special reference to their consumption. In: Wada, S. (ed.) *Tradition and change in African ethno-technology*.

Bulletin of the National Museum of Ethnology, Special Issue No. 12, 627-677 (in Japanese)

32 J. Takeda (1995) A manual to the exhibition of seashells : their variety and utilization used by humans, private edition, 1-24 (in Japanese)

33 J. Takeda et al. (1996) A guide to the Museum of Nature and Human Activities, Hyogo. Edited and published by the Museum of Nature and Human Activities, Hyogo: Hyogo, 1-87 (in Japanese)

34 J. Takeda (1994) Breadfruits: Food plant which supported the Pacific vikings. Monthly Pinpaku 12, 20-21 (in Japanese)

35 J. Takeda (1996) One folk tale of the Cook Islands: Maui who made the movement of the earth delay. Asuanaro 10, 24-27 (in Japanese)

36 J. Takeda (1996) Captain Cook and the Cook Islands. In: Kaulaka, K.; Ikuta, S. et al. (translators) Tales of Manihiki, the Cook Islands. Hoikusha: Tokyo, 82- 83 (in Japanese)

37 J. Takeda (2000) Captain Cook. Annals of Sangoukan Field Note 3, 52-53 (in Japanese)

38 J. Takeda and P. K. Mad (1996) Traditional Palauan lunar calendar and the fishing-gleaning activities on reef flats and/or in lagoons in the western Caroline Islands Micronesia. Kagoshima Univ. Res. Center S. Pac. Occasional Papers No. 30, 91-106

39 J. Takeda (1997) The traditional Palauan lunar calendar and fishing and gleaning activities on reef flats and lagoons in Palau. VIII Pacific Science Inter-Congress Suva: Fiji, Abstracts S3.

40 J. Takeda et al. (1998) Marine resources on tidal flats. Part 1: Traditional fishing-gleaning strategies and diversity in the Ariake Sea. Bulletin of the Faculty of

Agriculture, Saga University, 83, 79-98 (in Japanese with English abstract)

41 E-C. Lee, and J. Takeda (1999) Marine resources on tidal flats. Part 2: Traditional fishing-gleaning activities in Hampyong Bay, South Korea. Bulletin of the Faculty of Agriculture 84, Saga University, 11-27 (in Japanese with English abstract)

42 Y-L. Sun, K-M. Cho and J. Takeda (1999) The Continuity and change of communal management system of the reclaimed land. A case study of Chung-do Shin-nong Association of Wando Islando, Chonnam Province. Bulletin of the Faculty of Agriculture 84, Saga University, 29-49 (in Japanese with English abstract)

43 E-C. Lee and J. Takeda (2000) Marine resources on tidal flats. Part 3: Sustainable resource management in oyster-gleaning activities in Hampyong Bay, South Korea. Bulletin of the Faculty of Agriculture 85, Saga University, 45-62 (in Japanese with English abstract)

44 J. Takeda, E-C. Lee and K-M. Cho (in press) The Anthropological and ecological importance of tidal flats to Japan and Korea with special reference to oyster-gathering activities. Lowland Technology International 3, 1

45 J. Takeda (in press) Fishing-gleaning activities on reef flats and/or reef margins in coral ecosystem in Yap, Federated States of Micronesia (FSM). Kagoshima Univ. Res. Center S. Pac. Occasional Papers 34

46 J. Takeda, M. Kawabata and T. Matsuo (2000) The traditional utilization of useful plants and animals at Talaura Village, Guadalcanal, Solomon Islands, Bulletin of the Faculty of Agriculture 85, Saga University, 19-43 (in Japanese with English abstract)

Interview with Zohara Yaniv

Ruth Kutalek

May, 31st 2001, Institute for the History of Medicine

Zohara Yaniv is professor at the Volcani Centre for Plant Research, Israel and presently guest professor at our Department.

How did you become interested in botany?

During my army service I was in a very remote place in the desert. The purpose was to go to an isolated place, a group of soldiers, on a rotating basis, to try to develop it to an agricultural settlement.

I was really fortunate to be sent, with nice friends of mine, to a wonderful place close to Red Sea in the south. They told me that my job was to make the area beautiful. So I was in charge of what in Hebrew is called *noi*. *Noi* is landscape gardening. Before that I knew just



Zohara Yaniv

native plants but during the army service I began to look for plants in the area which are also nice and could survive in the desert and be decorative. I tried to cultivate them around the houses. So I became very interested in native plants and their possible potential. By talking to people I realized that some of them were medicinal plants that people were using for all kinds of purposes. Because that place was in the desert, close to the desert of Sinai, many Bedouins and nomads lived there. I became interested to see how they use them.

When I finished the army I went to study botany in the university. At that early time I didn't know that I will end up working in medicinal plants. I did my master's in plant biochemistry. Then I had an opportunity to go the States to do my Ph.D. It was in plant physiology and plant biochemistry.

When I finished my Ph.D I got a job, a post-doc, in an institute of plant research and I went into the direction of plant biochemistry to study diseases of plants, such as the rust fungi, parasites on plants and to study their mechanism of action. Although it was challenging I was not in love with it. So one day I went to Bronx Botanical Garden to hear a lecture on medicinal plants. I heard the lecture and I really could not fall asleep after that, it was fascinating. So I went again and again to the botanist who gave the lecture and I bought all his slides. I went to see documents, old manuscripts and books that they have. Based on my biochemistry knowledge I taught a course on medicinal plants for few years in a college but I continued to do my research.

After fifteen years in the U.S.A we decided to go back to Israel. By that time I was married and a mother of two girls. We said to ourselves: "If we find good jobs, we will come back, if not, we can stay in the U.S.A.". So we went for a 6-months sabbatical to Israel. During this half year I enjoyed the life in Israel because it is my home, and I enjoyed looking at my girls when they spoke Hebrew. I love the country and all the native plants that I knew so well.

So I started to look for a job. Since my background was botany I could either go to the university or to a similar institute for plant research. There is the government's Agriculture

Research Center with the emphasis on research. Then I met late Dr. Dan Palevitch, who was going to open a new unit of Medicinal Plants. He himself was an agronomist and he just hired a geneticist. I said: "I am a plant biochemist, I am interested in identifying the compounds in the plants and in clarifying their function." Since the idea was to find plants, mainly from Israel, with potential as medicinal plants and study how they grow and what are the best conditions to make them useful. I said: "Wow, this is fantastic! This is what I can contribute." So I joined the team.

Is it financed by the government?

It is financed by the government but as a returning Israeli for the first three years half of my salary was paid by the Ministry of Interior. There was a special program to encourage educated Israelis to come back to Israel. I got this one and after three years they had to decide whether or not I am staying permanently.

So, since then I am there! The department went through various changes but the idea is still the same in terms of goals for Israel. Research is basic because there is no progress without basic research, but the idea is to choose a basic problem that has an applied future at the end, it doesn't have to be tomorrow or at the end of the year. Three, five sometimes ten years, but with a potential in the end.

How do you know that in advance?

If you study medicinal plants the idea in the end is to find better plants, with a higher content of beneficial chemicals, with an advantage over competitors. It is better even though it is more expensive. Cultivating will be always more expensive than collecting plants from nature. But if we promise quality and if we look for high content of atropin, senecoid, flavonoid or vitamins, whenever you cultivate them under your final controlled conditions they will be the best. Then it's worth it. So this kind of research, it's physiology, biochemistry, environmental studies. There is also genetic engineering, but all genetic manipulations are more expensive. It is within the general program and it sounds wonderful but the best achievements so far are still from classical breeding, classical genetics, classical fieldwork, environmental studies.

What were your most interesting projects?

The most interesting project involved ethnobotany. We received a grant from the Ministry of Science in Israel to do an ethnobotanical survey of the medicinal native plants of Israel. We were funded for five years, created a team of experts and went around the country to carry out an ethnobotanical survey from Lebanon all the way to Mount Sinai. It took more than ten years, with editions. We published the survey and a book came out for the general public and we also brought out our results in the scientific literature.

About two years ago I published another interesting paper with a Palestinian scientist in Nablus. At that time the political situation was better than now. He contacted me. He did the same survey in the Palestinian territory, including some parts of Jordan. We wanted to compare the differences and the similarities. It was very interesting. We took his data and my data and compared it. I really felt wonderful about working together because people in the Palestinian territory cultivated a lot of herbs, on small plots, you know, near the house, like Chamomille, Senna, Aloe vera, for local use. So it was really an enriching experience.

Did you have contacts with scientists from other countries also?

Yes, I made contacts through the Mediterranean Agronomic Institute in Kreta. There we met people from the Mediterranean region. Even now we are involved in a very big project, the Medusa project. It is supported by the European Union with emphasis on the Mediterranean flora. The emphasis is on plants that are used medicinally, industrially, for food, for religious purposes, for protecting the soil, for making items like ropes etc. That will be a center of knowledge regarding plants of the Mediterranean. This is a database. Additional information is included such as if the plant is protected or not, if it is held in some gene bank or if there is no danger to the plant species. So this is really a very nice activity that I hope will continue to go on.

What does it mean that a plant is held in a gene bank?

There are two approaches to it. One is to hold

the dry seeds for future use if these are rare plants. Seeds are collected and kept there. Gene banks are actually seed banks. There are standard conditions to keep seeds, under low humidity, low but not freezing temperature. All the major countries have seed banks. This is one approach. The other approach calls for *in situ* preservation, where each country keeps areas of undisturbed preserved flora, so you can go back to it and find plants. The Israeli gene-bank is actually located in my institute. But we let collectors, scientists who work on a specific topic, like wheat germ plasm, to maintain their collection. Wheat is a native plant of Israel, the mother of wheat came from this land many many years ago, so we have a very large wheat germ-plasm collection in the gene bank.

What other interesting experiences did you have?

In the last few years I was also in charge of International Collaboration of the Volcani Center. It was in addition to my scientific activities, which also includes teaching in two universities. Nine years ago I was approached with an offer, voluntarily, to take on myself the job of directing the activity of international cooperation. That task has a charm in it because on one side I learned about my colleague's activities in agriculture research, what they are doing. On the other side I could also encourage people from all over the world to come to the center and see what we are doing and to promote collaboration with other countries. You know, Israeli agriculture has a good reputation, especially as a desert country. We were able to cultivate plants which previously did not grow in Israel. I did this task until I left for sabbatical.

You will go to China after Vienna. What are you planning to do there?

I hope it will be as exciting as I am planning it to be. Chinese medicine and especially medicinal plants are famous, so I hope I will have the opportunity to learn something about Chinese medicinal plants. To take a few as an example and to do some comparable studies on selected species in the Middle East and in China. I plan to find out if according to tradition they have the same uses, and according to pure science

they have the same qualities. We formulated a project with some leading species, like Artemisia. We have native Artemisia in Israel and the Chinese have their own Artemisia. The Israeli Artemisia was not studied scientifically, so we will test it similarly and even if it is different it will be interesting.

Artemisia is still used for malaria.

And now they found the scientific basis for it. They found the active compound, Artemisin.

In Israel it is not used for malaria, it is used for stomach ache, for colds. Maybe it is a different Artemisia. It will certainly be interesting because it is such a huge country with a very rich flora of various regions, from the desert to the cold climate, and with a long tradition.

You went very deeply into history and you are very much interested in spices and perfume plants. Could you tell us more about that?

Well, spice and perfume plants have a long and famous tradition. Many of them have medicinal values and many of them have a history that is very much related to the Middle East: the transfer of spices through the old routes. The fact that they were exchanged so many years ago ... I mean we have the beginning of commerce 3.000, 4.000 years ago, is really very exciting. Also in terms of agriculture it is now a booming new agriculture practice in Israel because we begin to cultivate many of these native plants, not exotic plants like cinnamon and cloves but native plants from the Labiatae family, the mints, and sages, also geranium, lavender, all these grow very well. So there is interest in extending the use not only to the kitchen but also to medicine. One of the directions is to study their potential as antipest or antiviral agents, in terms of plant protection. You can protect plants against diseases using natural compounds and that now is very attractive in the view of rejecting chemical control of plants, of cleaning the environment. So that is one direction, it also goes into aromatherapy, it has many uses. Also genetically in terms of breeding and genetic selection these plants are

much easier than many others to improve via simple methods. There are many genetic variations with the content of essential oils. You can get higher essential oils and those that are richer in one or other components that give the fragrant that you want, so all in all it's a very dynamic field.

For me personally I was always interested in the history of these plants. Many of my colleagues are only chemists they see only chemistry or they are geneticists and they see only the breeding aspect, and when it comes to history they say: "Go to Zohara, she knows." As years go by I am more and more fascinated by the past, by the ethnobotanical approach and that is what makes me very excited to be in Vienna because this department here is very much interested not only in the past but in the native uses of plants and medicine and how it is used as it was originally discovered, not to take the plant and immediately modify it and see how can you improve it. First you have to pay respect to what is known, how much we can get from the knowledge there is.

Maybe we should also pay honor to the art that I like very much, the art of painting and drawing plants. This is the part I am enjoying in Vienna, the art of illustration. History is accompanied by written evidence and that written evidence, the old herbals, is really an art. Vienna is a good place to see it. I went to the Hofburg and I saw the collection of china in the silver collection. This wonderful collection I am talking about is devoted to flowers. Very accurate and colorful flowers that grew in the Emperors' garden. I remember the Kamelia, so many variants of Kamelia chinensis. They were developed in the gardens some 200, 300 years ago just for beauty and now you can see them on the china plates! Or the present exhibition in the national library of old herbals. Somehow it makes me feel a little bit small because even in the 16th century an explorer went to China and described all the flora of China, so what can we add in the 21st century? They did fantastic jobs without print, without computers, just looking and painting.

Thank you very much for the interview!

Social Forum

The International Commission for the Anthropology of Food (ICAF) has a new web-page:
<http://www.icafood.org>

Margaret Lock from McGill University, Montreal, gave a lecture on June 6th with the topic “Twice Dead: Organs Transplants and the Reinvention of Death”

Wulf Schiefenhövel will be guest-professor at our Department from April 15 to June 15, 2002. He will hold the following lectures and seminars (in German):

“Transkulturelle Ethnomedizin” (Transcultural ethnomedicine) VL

“Ethnomedizin und evolutionäre Medizin” (Ethnomedicine and evolutionary medicine) SE

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Submissions, announcements, reports or names to be added to the mailing list, should be sent to:
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Photograph last page

The picture illustrates a scene from an old Sudanese tale of Tajoj and Mahalag and shows some aspects of Arabic medicine. The story tells of the beautiful girl Tajoj who is married to the brave and famous warrior Mahalag. Rivals of Mahalag accuse the innocent Tajoj of adultery. The jealous husband believes in the unjust accusation and parts from his wife. Mahalag couldn't bear the separation and became sick. When he was almost dying Tajoj came back to nurse him (see page 10).

Contributing Authors



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The Story of Tajoj and Mahalag

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