ENDANGERED LANGUAGES AND THE USE OF SOUND ARCHIVES AND FIELDWORK DATA FOR THEIR DOCUMENTATION AND REVITALISATION: VOICES FROM TUNDRA AND TAIGA

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ABSTRACT

The research program Voices from Tundra and Taiga has been devoted to the study of endangered languages and cultures of the Russian Federation, which must be described rapidly before they become extinct. This research is in the fortunate position that earlier work on the reconstruction technology for old sound recordings found in archives in St. Petersburg has made it possible to compare languages still spoken in the proposed research area to the same languages as they were spoken more than half a century ago. We have prepared a catalogue of the existing recordings, and a phonetic and video library of recorded stories, and of the folklore, singing and oral traditions of some minority peoples in the Russian Federation and its bordering areas. For this purpose, the existing sound recordings in the archives have been used together with the results obtained from new fieldwork expeditions. At present, many old recordings still remain hidden in private archives and places where the quality of preservation is not guaranteed. In a research project on Endangered Archives, we make part of these recordings available and add them to the database developed in St. Petersburg. The aim of the project is to re-record the material on sound carriers according to up-to-date technology and store them in a safe place together with

Since 1990, Tjeerd de Graaf, associate professor of phonetics at Groningen University (the Netherlands) until 2003, has specialised in the phonetic aspects of Ethnolinguistics. In 1990, he made his first fieldwork trip with a Japanese expedition to the minority peoples of Sakhalin. Since then, he has contributed to various research projects on endangered languages and the use of sound archives related to the ethnic minorities in Russia. This was done in co-operation with colleagues in the Russian Federation and Japan. Most of these projects were financially supported by special grants from the European Union and the Netherlands Organization of Scientific Research (NWO). In 1998, Tjeerd de Graaf received a Doctorate Honoris Causa from the University of St. Petersburg for his work in the field of ethnolinguistics. Since 2002, he has been a board member of the Foundation for Endangered Languages (Great Britain) and a research fellow at the Frisian Academy, which co-ordinates research on European minorities—in particular the language, history and culture of Frisian, one of the lesser used languages of Europe. In the first half of 2003, he spent a semester at the University of St. Petersburg as visiting professor. In 2004 and 2005, Tjeerd de Graaf worked as guest researcher at the Slavic Research Center of Hokkaido University (Japan).
the metadata. The storage facility provided by the project will modernise the possible archiving activities in the Russian Federation and bring them up-to-date with the present world standards. The data are added to the existing archive material in St. Petersburg and part of it is presented on the internet and/or CD-ROM. This material thus becomes available for further analysis to researchers working in the field of phonetics, linguistics, anthropology, history, ethnomusicology and folklore. The information is also important for the development of teaching methods for representatives of the related ethnic groups and for the conservation and revitalisation of their language and culture. In this paper, we shall also consider some background data about endangered languages and the results of our projects for various cases, such as for the Paleo-asiatic languages Ainu and Nivkh which are represented in Eastern Asia.

Keywords: endangered archives, endangered languages, sound recordings, historical linguistics, languages of Asia-Pacific

HISTORICAL DATA IN SOUND ARCHIVES

In the last half of the 19th century, a great invention was made by Thomas Edison which changed the possibility of doing linguistic research drastically (De Graaf 1997, 2002c). This was the phonograph which since 1880 was used for recording sounds. For the first time in human history, people were able to store and rehear acoustic data, in particular speech, and to reproduce it to other sound carriers. It was not long after this invention that ethnologists, folklorists, linguists, composers, and amateurs began to use the new machine to collect information on the oral data and music of cultural groups at home and abroad.

Prior to 1890, during linguistic fieldwork, notes were taken by hand after many repetitions of spoken utterances and this was a laborious process for both the investigator and the informant. The phonograph changes all this and with the new method, linguists were able to make records instantaneously and obtain an accurate and objective record of a single performance. Now, it is possible to capture the nuances and subtleties of the spoken word and duplicates could be played repeatedly for transcription and analysis, whereas the original recordings could be preserved for future use.

For best results in the reproduction of sound from the old wax cylinders, several modern cylinder players have been built which employ light weight pick-up cartridges for mechanical extraction of the signal. In order to minimise further degradation of cylinders by replay, and also to make contents retrievable from broken cylinders, several optical methods for contactless, non-destructive replay have been developed. The first was
introduced by a Japanese research group (Asakura et al. 1986). In 1988, I was invited to work for a few months with this group in Sapporo (Japan) and there, I could apply this method to some wax cylinders and learn from the experience of my Japanese colleagues.

Using the phonograph over the years from 1902 to 1905, the Polish anthropologist Bronisław Piłsidski recorded the speech and songs of the Ainu people on Sakhalin and Hokkaido on wax cylinders in order to study their culture. These wax cylinders were discovered in Poland and taken to Japan, where the research group of Professor Asakura contributed to the reconstruction of this valuable material. During my stay in Japan, Professor Kyoko Murasaki introduced me to the last speakers of Sakhalin Ainu, who were living on Hokkaido (Murasaki 2001) and suggested that we might go together to Sakhalin in order to do fieldwork there. In 1988, Sakhalin was completely isolated from the outside world, but Gorbachov’s perestrojka made it possible to organise the first international ethnolinguistic expedition to the island, which I could join in 1990 (De Graaf 1992). There, we did not find any remnants of the Ainu population, but we could visit various parts of Sakhalin where the Nivkh people are living. The following sections of this article will report on the projects related to the use of sound archives for the study of minority languages.

SOME EUROPEAN PROJECTS RELATED TO ENDANGERED LANGUAGES AND SOUND ARCHIVES

Our research group on Phonetics and Ethnolinguistics pays attention to various aspects of the languages spoken in the Russian Federation. In this report, we shall describe a few projects, which have been undertaken by the research group and elsewhere for the study of the minority peoples of Russia and for the description of the endangered languages involved. For this purpose, data from archives have been used and combined with results of modern fieldwork in several parts of the Russian North, Siberia, the Russian Far East and the bordering areas of Russia and Japan. Since 1992, these projects have been financially supported by the Netherlands Organization for Scientific Research (NWO), the Organisation INTAS of the European Union and the Sakhalin Energy Investment Company Ltd. We have collaborated with colleagues in Russia and Japan and part of our work is simultaneously related to Japanese research projects.

When recordings were made, it became obvious that a central facility was needed for the preservation of the valuable data which had been collected. At the beginning of the 20th century, this led to the establishment
of sound archives, the earliest of which in Europe were located in Vienna, Berlin and St. Petersburg. The sound archives of the Russian Academy of Sciences in the Museum of Russian Literature (Pushkinsky Dom) in St. Petersburg contain about 7000 wax cylinders of the Edison phonograph and more than 500 old wax discs. In addition, an extensive fund of gramophone records and one of the largest collections of tape-recordings of Russian folklore represent the history of Russian ethnography and contain a wide range of materials (De Graaf 2001, 2002a). Many of these recordings form one of the basic collections used in our joint projects with St. Petersburg.

The first of these projects on the Use of Acoustic Data Bases and the Study of Language Change (1995–1998) has been financially supported by the organisation INTAS of the European Union in Brussels. We were able to reconstruct some of the many recordings in the Pushkinsky Dom and to make them available for further research, which is not only important for historical and cultural reasons, but also for language description and for the study of possible direct evidence of language change.

In a second INTAS project, St. Petersburg Sound Archives on the World Wide Web (1998–2001), some of the sound recordings were placed on the internet and are now available at a special web site for further study (De Graaf 2004a). In both projects, the Phonogrammarchiv of the Austrian Academy of Sciences was both partner and responsible for the technical aspects. For these projects, we first completed the reconstruction of the sound archive material of the Zhirmunsky collection. Zhirmunsky was a famous linguist who worked in St. Petersburg/Leningrad in the early years of the 20th century. One of his main interests was the study of German dialects spoken in Russia. In the period between 1927 and 1930, he recorded many utterances, in particular songs by German settlers, on waxed cardboard discs, which were transferred to the Vienna Phonogrammarchiv. Within the framework of the INTAS project, this collection has been copied onto tape and part of the material is now stored in a special database. A special study covered the language of the Siberian Mennonites (De Graaf 2005).

For our third INTAS Project on The Construction of a Full-Text Database on Balto-Finnic Languages and Russian Dialects in Northwest-Russia (2000–2003), we prepared an inventory of the Finno-ugric minority languages in the vicinity of St. Petersburg and the southern and middle parts of Karelia. They represent a specific linguistic picture of an area where endangered languages such as Vepsian, Ingrian, Votic, Ingrian-Finnish and Karelian and various types of Russian archaic dialects are spoken in close proximity to this day.
The St. Petersburg sound archives also contain important data on Yiddish, the language of the Jews in Eastern Europe, which at the beginning of this century was spoken by millions of speakers in the Russian empire. In the archives, we found an unpublished manuscript, *The Ballad in Jewish Folklore*, together with material on corresponding wax cylinders. Together with specialists in St. Petersburg, we further explored the acoustic data in the sound archives and prepared the edition of the book. This took place in the framework of a project with the title *Voices from the Shtetl, the Past and Present of the Yiddish Language in Russia* (1998–2001), for which we have obtained financial support from the Netherlands Foundation for Scientific Research, NWO (De Graaf, Kleiner and Svetozarova 2004).

Modern fieldwork and reconstructed data from sound archives provide important information for the preparation of language descriptions, grammars, dictionaries and edited collections of oral and written literature. During fieldwork expeditions to Northern Yakutia, the Altai Region and Sakhalin, we have studied the processes of language shift and language death of the aboriginal populations of Russia, providing us with a lot of interesting data. As mentioned above, our first international expedition in 1990 took place to the island on Sakhalin, where we were looking for the Ainu, Nivkh and Uilta people and making recordings of their languages. We shall first consider the Ainu, their history and the position of the remaining representatives of this ethnic group in Japan.

THE MINORITY PEOPLES OF EAST ASIA, IN PARTICULAR THE AINU IN JAPAN

Originally, the northern part of the Japanese main island, Honshu, was inhabited by Ainu people, whereas there are indications that they also lived on the southern tip of Kamchatka. Traces of the Ainu on Honshu are found in geographic names, but due to political developments they also disappeared from Sakhalin and the Kurile islands (De Graaf 2004b). In the 16th century, many Japanese immigrants began to settle in Hokkaido and engage in large scale fishing and trading. The Japanese area (Wajinchi) was located in the southern part of the island (Matsumae), while the Ainu people lived in the areas called Ezochi—the rest of Hokkaido (the name of the island since 1868), Karafuto (Sakhalin) and Chishima (Kurile islands). The southern islands of Etorofu and Kunashiri are at the moment disputed territories between Japan and Russia. Their original inhabitants were also Ainu and the first map of these islands was made by the Frisian sailorman,

In the Meiji era (from 1868 onwards), under a government policy of assimilation, the Ainu were oppressed and exploited by the Japanese. The modernisation of Japan caused the central government to pay serious attention to the exploration and economic development of Hokkaido. For this purpose, the Hokkaido Settlement Mission (Kaitakushi) was established as an administrative organisation to rule the region, and a large number of former samurai and farmers emigrated from the Japanese mainland to Hokkaido. *Ainu moshir* ("the people's land"), where the Ainu had freely hunted and gathered food, became part of the territory of Japan and was given to Japanese immigrants. With the introduction of the Japanese way of life and special compulsory education, the traditional system of learning from one's elders was broken down and the original social and cultural patterns of the Ainu population were destroyed. As a consequence, the Ainu language, together with the traditional lifestyle almost completely disappeared within a couple of generations.

Because the number of people who use the language has been decreasing yearly, Ainu language education is in a very difficult state. For the improvement of Ainu language education, the Foundation for Research and Promotion of Ainu Culture (FRPAC) provides learning opportunities, training Ainu language instructors through intensive courses in effective instruction methods based on the grammar and lexicon of the Ainu language, in cooperation with Ainu language researchers. Various descriptions of the Ainu language have been produced (Tamura 2000). Ainu language classes are offered in various community centers in Hokkaido and in the Ainu Culture Center in Tokyo. These centers are very well equipped with modern facilities, often combined with interesting expositions related to the Ainu culture. In order to disseminate the Ainu language to the general public, the FRPAC provides opportunities for many people to have contact with and to learn the Ainu language.

**THE LANGUAGES OF SAKHALIN**

The island of Sakhalin belongs to the Sakhalin area (Sakhalinskaya Oblast), one of the most eastern territorial units of the Russian Federation with a size of 87,100 km square and a North to South distance of 980 km. The Kurile Islands are also part of this territory—a chain of 1200 km length with 36 islands. A long-time dispute exists between Japan and the Russian Federation about the ownership of the most southern of these islands. From
1905 to 1945, after the Russian-Japanese war, the southern part of the island (Karafuto) was a Japanese colony and during this period many Japanese immigrants (about half a million) settled there. The original population of Sakhalin consisted of some Paleo-Siberian and Tungusic tribes, in particular the Nivkh (Gilyak) and Uilta (Orok) in the North and Center, and the Ainu in the South. Their numbers were rather small and during the colonisation process by the Russians from the North and by the Japanese from the South, they became soon numerically dominated by these stronger nationalities. Due to their isolated life far from the political center, they could keep their native language and culture for a long time, but since the beginning of the 20th century, the assimilation process has gradually become stronger.

In the summer of 1990, I took part in the first international field work expedition to Sakhalin, with the aim to investigate the linguistic and ethnographic situation of the smaller nationalities on the island. The idea was to look for the remnants of the Ainu population and for the other small minority groups, in particular Nivkh (Gilyak) and Uilta (Orok). Unfortunately, during our expedition, no more Ainu people could be found and the only person representing the Sakhalin Ainu language and culture was probably the informant we met in Hokkaido, Asai Takesan (De Graaf 1992, Murasaki 2001).

Ainu is the only small endangered indigenous language of Japan, whereas Nivkh is a representative of the many minor languages of Russia. From the available demographic data, we could conclude that, in 1989, the aboriginal Peoples of the North formed a very small minority within the total population of Sakhalin. For the Nivkh ethnic group, which is the largest group, the percentage is only 0.3% (De Graaf 1992). Among the small nationalities in the Russian Federation, the Minority Peoples of the North play a special role. There are nearly thirty different groups, all living in the northern parts of the country bordering the Arctic Ocean from Scandinavia to the Bering Sea and the Pacific. The Peoples of the North were the last ones to be put under effective Soviet rule. In the early thirties, the Soviet regime tried to extend its grip on these peoples and to encourage Russian culture and literacy among them. With this aim, a "Committee for the Assistance and Protection of the Small Peoples of the North" was founded in 1923 and a writing system was developed for many of the minority languages. Initially, the Latin alphabet was used for this purpose, but in the later thirties this was changed to Cyrillic.

The Nivkh language is classified as Paleo-Siberian and spoken by tribes inhabiting the lower reaches of the Amur river in the Far East of the Asian continent and the northern and central parts of Sakhalin island (Gruzdeva 1998). One of the linguistic complications is the fact that the
language has two (or maybe more) rather different dialects—the Amur dialect and the Sakhalin dialect. Both groups are rather small. Altogether, about 4400 people have the Nivkh nationality, and less than 15% of them are speakers of the Nivkh language. A very small group speaks the southern Poronaisk dialect treated and for this dialect it is very difficult to find speakers. After the war, several of them went from their homeland in Southern-Sakhalin to Japan, where Japanese and other non-Soviet linguists studied their language.

The first all-Russian census was organised during the czarist regime in 1897. In that year, the total number of people on Sakhalin, belonging to the Nivkh ethnic group, was counted as 1969. They all treated Nivkh as their mother tongue and probably most of them were monolingual. In the second census mentioned, the one of 1926, which was organised for the first time in the Soviet Union, the total number of Nivkh people was lower, due to the fact that the inhabitants of the Japanese southern part of Sakhalin were not counted. Practically all of them still had Nivkh as their mother tongue. Since that year, however, a decrease in the percentage of Nivkh speakers has set in, whereas the total number of Nivkh on Sakhalin stayed more or less stable (about 2000). In 1989, most Nivkh people (more than 80%) who were not speaking Nivkh any more, mentioned Russian as their first language.

The transition from the Sakhalin Nivkh to the Russian language can be explained in a number of ways. One of the most important factors was the growing contact of the Nivkh population with the other inhabitants on the island. Many of them were Russian-speaking people from the motherland, who came to the island to exploit the many natural resources (oil, coal, wood, fish, caviar). Before that time, the Nivkh people were living as fishermen and hunters in their isolated villages, but they increasingly came into contact with the immigrants, who also started an active policy of educating and influencing the aboriginal inhabitants of the eastern parts of the Russian Federation.

In recent times, a development is taking place in favour of the native language and culture of the small minorities in the Russian Federation, in particular the Nivkh (De Graaf and Shiraishi 2004). Attempts are being made to revive the Nivkh language, for example by introducing language classes in Nivkh in several schools. In 1980, the Ministry of Education of the Russian Federation initiated a program for primary and secondary schools, for which text books and dictionaries were edited. Special instruction was given to teachers of Nivkh descent about the education of Nivkh children in their own language. This teaching program was introduced in the special boarding schools for children from the ethnic
minorities in Nogliki, Chir-Unvd and in Nekrasovka. We were able to visit these schools and to learn about the teaching methods for Nivkh used in the primary education.

During our fieldwork expeditions in Sakhalin, important linguistic material was collected on the languages of the minority groups. Most of the subjects for our research project were elderly people with a strong motivation to use their language, such as members of a folkloristic group. Practically all young people we met had no active knowledge of the language, and they only communicated in Russian with their parents. During the interviews we made with Nivkh informants, they were very positive about the value of keeping and cultivating their own culture in this way and they want to combine this with a future life as members of the group of nations in the Russian Federation. They agree that Russian language and culture play a very important role in their lives, but they would like to see the survival of their native language and culture stimulated by all possible means.

VOICES FROM TUNDRA AND TAIGA

Important activities related to linguistic databases in St. Petersburg concern the recordings of Russian dialects and minority languages in the Russian Federation, such as Nivkh, Tungus, Yakut and others (De Graaf 2004a). One of our aims is to use these recordings for the construction of a phonetic database of the languages of Russia, which will have many scientific, cultural and technical applications. Within the framework of the research program Voices from Tundra and Taiga which started in 2002, we combine the data from old sound recordings with the results of modern fieldwork, in order to give a full description of the languages and cultures of ethnic groups in Russia. The endangered Arctic languages and cultures of the Russian Federation must be described rapidly before they become extinct. Our earlier work on the reconstruction technology for old sound recordings found in archives in St. Petersburg has made it possible to compare languages still spoken in the proposed research area with the same languages spoken more than half a century ago, which provided a fortunate start of these projects. The sound recordings in the St. Petersburg archives consist of spoken language, folksongs, fairy tales etc., among others in Siberian languages (Burykin et al. 2005, De Graaf 2004a).

In these projects, the techniques developed earlier are applied to some of the disappearing minority languages and cultures of Russia, such as Nivkh and Uilta on Sakhalin and Yukagir and Tungusic languages in
Yakutia. Our goal is to set up a phono and video library of recorded stories, folklore, singing and oral traditions of the peoples of Sakhalin and Yakutia. Thus, the existing sound recordings in the archives of Sakhalin and Yakutia will be complemented by new fieldwork results. The data obtained will be added to the existing archive material in St. Petersburg and partly available on the internet and CD-ROM.

This research project and the related documentation are carried out in close co-operation with scholars in local centers such as Yuzhno-Sakhalinsk who participate in the archiving of sound recordings and fieldwork expeditions. Specialists from St. Petersburg and the Netherlands visit them to set up new centers for the study and teaching of local languages and related subjects. For this purpose, we organised a special seminar for Nivkh teachers in Yuzhno-Sakhalinsk in October 2003.

Spontaneous speech and the reading of prepared texts is collected for (ethno) linguistic as well as for anthropological, folkloristic and ethnomusicological analysis. These data are (video) recorded and analysed, and they will thus illustrate the art of story telling and language use. The above described texts will be published in scientific journals and books with audiovisual illustrations on CD-ROM and/or on the internet. The materials will thus become available for further analysis to scholars working in the field of phonetics, linguistics, anthropology, history, ethno-musicology and folklore.

Using a phrase book for school children of Nivkh (Taksami et al. 1982), we recorded a native speaker during our fieldwork trip in 1990. The texts with the illustrations of the book are now shown on the internet together with the acoustic data. The separate phonemes are also supplied on a special table and by selecting one of them, the student can listen to various speech sounds. This has the advantage that students will be able to learn the distinction between various separate phonemes (e.g. four k-sounds) of Nivkh, which are variants (allophones) of one phoneme in Russian. One of our research students and his Nivkh colleague published a series of books with Nivkh stories, songs and conversation in which for the first time, the corresponding texts are recorded on a CD. The series, Sound Materials of the Nivkh Language I–III (Shiraishi and Lok 2002, 2003, 2004) appeared as a result of the Japanese program on Endangered Languages of the Pacific Rim (ELPR) and the research program Voices from Tundra and Taiga. This unique material is not only used by linguists, but also by the language community itself, where it can be applied for teaching purposes. In 2006, Hidetoshi Shiraishi finished a dissertation on this topic with the title Aspects of Nivkh Phonology, which he defended in September 2006 at Groningen University (Shiraishi 2006).
For the Nenets community, the research group in St. Petersburg has developed a phrase book where Russian phrases for everyday use are translated into the three main dialects of Nenets. It is possible to listen via the internet to spoken Nenets and to make a choice which dialect one should like to hear. Thus, difficult problems related to the standardisation of the language (e.g. a common writing system for different dialects) can be solved on the basis of extensive material obtained from archives and fieldwork. Similar problems have to be considered for other parts of the Russian Federation.

ENDANGERED ARCHIVES

In the summer of 2005, we reported on the NWO research project *Voices from Tundra and Taiga*, and we published a catalogue of existing recordings of recorded stories, folklore, singing and oral traditions of the peoples of Siberia (Burykin et al. 2005). This material has thus become available for further analysis by researchers working in the field of phonetics, linguistics, anthropology, history, ethno-musicology and folklore. The information is also highly important for the development of teaching methods for representatives of the related ethnic groups and for the conservation and revitalisation of their languages and cultures.

At present, many old recordings still remain hidden in private archives and places where the quality of preservation is not guaranteed. In a new project, which from September 2006 has been financially supported by a special Programme on Endangered Languages at the British Library, we proposed to make part of these recordings available and to add them to the database developed in St. Petersburg. The St. Petersburg Institute for Linguistic Studies (ILS) is one of the most important Russian centres for the investigation of minority and regional languages in the Russian Federation. Many researchers in this institute have collected sound materials and many of these recordings (primary data) are not stored in safe places, whereas the related field notes, manuscripts, card files (secondary data) can be found in the institute and also in private archives.

Partner in this new project on Endangered Archives has again been the Phonogrammarchiv of the Austrian Academy of Sciences. The aim is to re-record the material on sound carriers according to present-day technology (Schüller 2005) and store them in a safe place together with the metadata, which will be obtained from the related secondary data. The storage facility provided by the project will modernise the possible archiving activities in
the Russian Federation and bring them up-to-date according to present world standards.

The original open reel and cassette tapes have been copied onto hard discs and in the total collection of more than 111 hours (218 GB) of digitised sound material. The following languages are represented: Azerbaijani, Balochi, Chagatay, Chatror, Dari (Farsi-Kabuli), Enets, Kati, Kerek, Mendzon, Nenets, Nganasan, Parachi, Pashai, Pashto, Russian, Shugni, Tajik, Udeghe, Vaygali and Wakhi (Vakhan). The data in this digital sound archive provide information about the historical development of these languages and can be used for the purpose of language description, the study of folklore and ethnomusicology. This is, in particular, the case for many of the endangered minority languages in Russia.

In other parts of Russia, similar important collections can be found, not only in established institutions, but many of them are in private hands and often endangered. For example, the private collections on Nivkh available Yuzhno-Sakhalinsk, Vladivostok, in London and elsewhere. For most of these, it can be said that the quality of preservation is below standard. Following our long-standing collaboration with scholars from Sakhalin, we are also planning to create facilities in Yuzhno-Sakhalinsk for the storage of sound material related to the aboriginal languages of the island. The most important are the above mentioned Nivkh collections, but we should also like to add material on Sakhalin Ainu and Uilta. For some of these private collections, the size is approximately known, but in other cases this first has to be estimated. Within the framework of our project and future new projects, we would like to obtain access to these collections, copy them on modern sound carriers, make a catalogue available and publish part of the material together with the related recordings in St. Petersburg. In Sakhalin and other parts of Russia, the local scholars will be involved in the preparation of these projects with the support of colleagues in St. Petersburg, Austria, the Netherlands and Japan.

**DOCUMENTING ENDANGERED LANGUAGES**

In most parts of the world, speech communities of endangered languages have no or only restricted access to formal education. Even in the other parts, very few members of ethnolinguistic minorities are trained linguists. For that reason, the documentation of endangered languages involves the speakers of such languages together with the documenting linguists. Furthermore, various aspects of the research setting need to be taken into consideration. Different types and possible levels of language
documentation are often determined by non-linguistic considerations. These conditions include, among other things, the availability of funding for equipment, the logistics of the fieldwork situation (accessibility, security), and the familiarity of field workers with audiovisual technology.

In the spirit of gathering encyclopedic knowledge, as was one of the characteristics of 18th century enlightenment, short word lists of unwritten languages were compiled all over the world during that era. These word lists are often the sole sources of any information about the language, and are therefore very valuable, despite the inconsistencies in spelling, the lack of analysis of the language's sound system and, of course, the absence of knowledge of its grammatical structure. Some long word lists and grammatical sketches of vanishing languages, collected by travelers and interested amateur philologists, exist in various archives in Europe and elsewhere. These important sources call for being evaluated and the language data should be made publicly available by putting them onto the World Wide Web.

The Witsen project could serve as an example for such dissemination effort of linguistic data from historic sources. The project investigates the minor communities of Northeast Asia, their history, natural environment, culture, language and their way of life. It has been triggered mainly by the book 'Noord en Oost Tartarije' of the Amsterdam Mayor Nicolaas Witsen (Witsen 1705). In this book, Witsen gives many details on the peoples of Siberia, their languages and cultures, and he provides the first maps of this part of the world. For many of the Siberian languages, for example for Yakut and Tungus, word lists are provided. The fact that this book is written in 17th century Dutch makes it difficult for readers in Russia to get access to the interesting material it contains, such as the linguistic data on various languages. A few years ago, a group of Dutch scholars began preparing a Russian edition of this work. It has already been translated into Russian and is now being supplemented with comments and annotations by specialists on all details contained in the book. For the historical data about the peoples in the bordering areas of Russia with Japan and China and their languages, these data are very valuable (De Graaf and Naarden 2007).

Only during the 19th and 20th centuries did reliable and complete grammatical descriptions become available, often combined with dictionaries and text collections. At present, these descriptive grammars are the main source of our knowledge of endangered and extinct languages. Much of current work is a direct continuation of the tradition which originated in the 19th century, and it produces grammars, dictionaries, as well as more theoretical analyses. Fieldwork is considered the essential part in documenting endangered languages. The 20th century has brought the
technological innovation of sound carriers, complemented by video. Languages can be recorded in better quality and the communicative interactions can be captured on film. The possibility of recording interactions has not only enriched our knowledge of grammar, morphology, lexicon, etc., but it also allows for a systematic description of patterns of interactive language use. Materials locked up in sound archives, museum collections and libraries, such as for Nivkh mentioned above, need to be made publicly available, as they can be employed not only to study extinct languages, but also to possibly revive them. In the projects described in the foregoing sections, new technologies have been introduced which can also help preserve language documents and make old materials accessible on new data carriers and available for further research.

Information technology allows combining different types of information (texts, recordings, visual material) into integrated documentation systems. One of the initiatives which utilises modern technologies for language documentation is the DOBES project (DOkumentation BEdrohter Sprachen), carried out at the Max Planck Institute in Nijmegen (the Netherlands). This project aims at documenting selected endangered languages according to current scientific standards, but also in a way which allows the analysis of the data. The project attempts to define linguistic and technological standards for the documentation of so far unrecorded language that may also applied by other scholars working in this field.

The DOBES project is one of several current worldwide initiatives that has supported the documentation of endangered languages and, in doing so, help to safeguard an essential part of human cultural heritage. Other programs are the Hans Rausing Endangered Languages Project at the London School of Oriental and African Studies (Austin 2002, 2004), the Japanese project on the Endangered Languages of the Pacific Rim (ELPR) and the special programme of the Netherlands Organisation for Scientific Research, NWO.

Established in 1995, the Foundation for Endangered Languages (FEL) supports, enables and assists the documentation, protection and promotion of endangered languages (see www.ogmios.org). The preamble of the FEL summarises its objectives as follows:

(i) to raise awareness concerning endangered languages, both inside and outside the communities where they are spoken, through all channels and media;
(ii) to support the use of endangered languages in all contexts: at home, in education, in the media, and in social, cultural and economic life;

(iii) to monitor linguistic policies and practices, and to seek to influence the appropriate authorities where necessary;

(iv) to support the documentation of endangered languages, by offering financial assistance, training, or facilities for the publication of results;

(v) to collect and make available information of use in the preservation of endangered languages; and

(vi) to disseminate information on all of the above activities as widely as possible.

Many European countries of the Council of Europe have ratified the European Charter for Regional or Minority Languages. This Charter has been put forward not only to foster a greater unity between its member states, but also to help European minorities to develop and maintain their heritage languages. Within the European Union (EU), several initiatives have been established in accordance with the principles of this Charter. The European Bureau for Lesser-Used Languages (EBLUL) is a Non-Governmental Organisation (NGO) that promotes languages and language diversity in Europe. In addition to the Member State Committees (MSCs), the Mercator Network of three research and documentation centers has been set up. The Mercator-European Research Centre on Multilingualism and Language Learning at the Fryske Akademy should be mentioned here as an institution, which conducts and publishes studies on various questions concerning education for minority speech communities and in minority languages.

**LANGUAGE MAINTENANCE AND REVITALISATION**

Maintaining language diversity requires not only the speakers themselves, but also the involvement of linguists, language planners and policy makers. Akira Yamamoto (one of the leading scholars and a committed promoter of fostering the use of endangered languages in the United States) has quite rightly been demanding for many years that "research in endangered language communities must be reciprocal and collaborative". Only in working together with the communities are linguists able to contribute to the safeguarding of endangered languages.
Many members of minority communities no longer care for their heritage languages and linguists often find it difficult to accept this fact. Nevertheless, it is only at the request of the speakers that linguists can assist ethno-linguistic minorities in fostering their threatened languages in meaningful ways. As a first step, oral languages need to be analysed and documented. For this purpose, the development of a practical writing system is one of the basic requirements for language documentation and maintenance activities. Linguists may support communities in the development of teaching and learning materials, as well as in teacher training. And finally, members of the speech community might even be trained to become researchers and linguists themselves.

Discussions on the future of their ancestral languages are far more complicated, and quite diverse opinions are expressed by members of ethno-linguistic communities. Those speaking endangered languages often consider their own language to be backward and not functional either for themselves or for future generations. Other communities, however, experience threats to their languages as a crisis and commit themselves to language revitalisation activities. They establish environments, such as kindergartens, in which their languages are spoken exclusively in order to stabilize their mother languages among the young generation. Still, an increasing number of ethno-linguistic minorities want more. Many of their members demand control over the terms and conditions which govern research. Also, they further claim rights on research outcomes, and they wish to have a say on how research results should be used and disseminated.

In the educational sector, quite a number of linguists are engaged in implementing mother tongue education programmes to safeguard ancestral languages. Mother tongue education has become more popular in most parts of the world over the past 15 years, and since 1953, UNESCO has been instrumental in this development through its policy statements and related activities. Looking at endangered languages, however, we find that in many Asian and African countries, so-called "mother tongue education" does not refer to the ancestral languages of ethno-linguistic minorities, but to the use of—local, provincial, and national—dominant languages as the media of instruction. Less than 10% of the approximately 2000 African languages are currently employed as the medium of instruction in the educational sector, without a single endangered language among them. "Mother tongue education" in many cases further cements the position of languages which spread at the expense of endangered languages. As linguists, we are obliged to support any attempt to use African languages in formal education, but with that we may involuntarily help to threaten the languages of ethno-
linguistic minorities, which are not included among the media employed in "mother tongue education".

As we have described in the foregoing parts of this review, in a joint effort, researchers from Russia and the Netherlands analyse data from audio archives and at the same time apply modern fieldwork techniques in studying endangered languages such as Nivkh, Nenets and Yukagir. The results are language descriptions, grammars, dictionaries and edited collections of oral and written literature on and in these languages. In seminars, the use of these learning and teaching materials within the modern facilities of information technology is passed on to local teachers. Formal language teaching of former mother tongues is directed to those younger members of the communities who have not learned their native language informally at home. Special methods for teaching the former mother tongue as a foreign language have to be applied. Selected parts of the acoustic databases used for these projects are available on the internet and provide an opportunity for the exchange of information on these languages with institutions from other parts of the world.

**CONCLUDING REMARKS**

Proficiency in nationally and internationally dominant languages will gain importance throughout the world and, for that reason, will continue to spread. This development does not necessarily require the sacrifice of other languages, i.e. mother tongues of ethno-linguistic minorities, since most societies have always been multilingual. However, speakers might decide to abandon their low prestige ethnic tongue for the benefit of social mobility and career opportunities. In these situations, ancestral languages can only survive in the long run if meaningful roles for them can be established in the lives of the community members. Ultimately, in order to maintain and perpetuate the world's language diversity, these speakers have to find good reasons for keeping their ancestral language alive in natural everyday communication with their offspring.

The world faces new challenges in keeping its languages alive and well. It is time for the peoples of the world to pool their resources and build on the strengths of their linguistic and cultural diversity. This entails pooling the resources at all levels: individual language specialists, local speaker community, NGOs, and governmental and institutional organisations.

At the local community level and over the past several decades, for example, many people have been working to develop language education programmes, usually with extremely limited technical resources. Unlike
teachers of major languages of the world, they lack not only formal training in language teaching, now often required by local governments, but also language curricula and, even more crucially, usable basic language descriptions. The Mercator European Research Centre has the intention to be instrumental in co-ordinating these activities. It will be important to exchange ideas with similar institutes in other parts of the world, such as in Eastern Asia. Together we shall be able to develop an effective and viable strategy for sustaining the world's endangered languages.

REFERENCES


———. 2004 *Sound Materials of the Nivkh Language 3*. Publication of the International NWO project “Voices from Tundra and Taiga”, University of Groningen.


