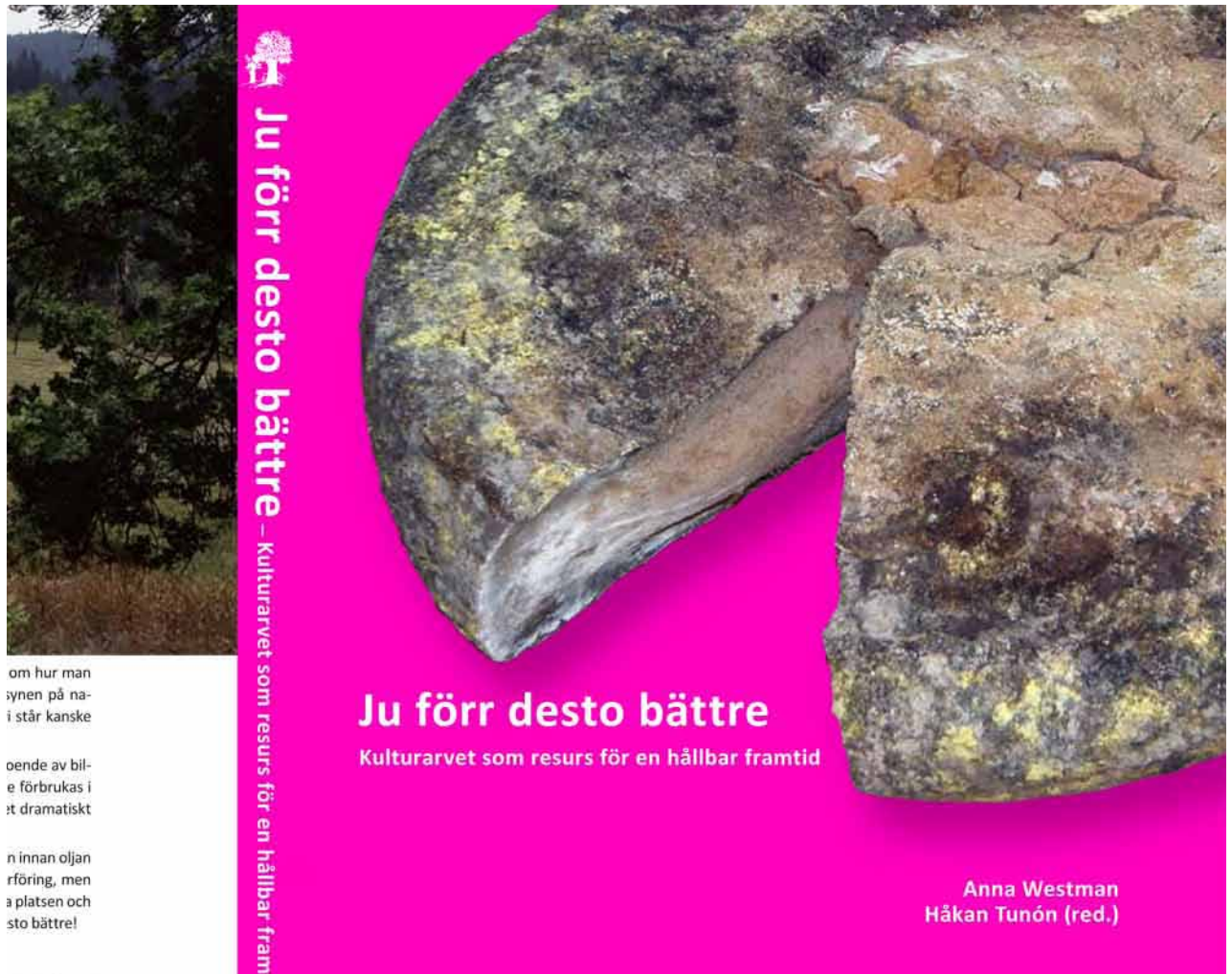


Summaries from

# The Sooner the Better:

Cultural heritage as a resource for a sustainable future



**NAPTEK**  
Traditional knowledge  
and biodiversity



*Sveriges Hembygdsförbund*



PROMOTION OF A  
CULTURAL AREA COMMON  
TO EUROPEAN RURAL COMMUNITIES  
"CULTURE 2000"  
FRAMEWORK PROGRAMME  
IN SUPPORT OF CULTURE



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## Preface

This is a compilation of translated summaries of the essays published in the book *Ju förr desto bättre – kulturarvet som resurs för en hållbar framtid* (Westman & Tunón, 2009). Both the book and this compilation has been produced within the EU-project Cult Rural. This compilation has been given the title of the book in direct translation, but the Swedish original title has a double meaning since *ju förr* can be interpreted both as *the sooner*, but also as *the further back in history*.

The sooner the better! We cannot wait too long to deal with the problems concerning environment, climate and energy. We must act, the sooner the better. We have already a bank of knowledge with experiences from life in the old days before the almost unlimited supply of fossil fuels which has created our world view and way of life during the last fifty years. We do not have to reinvent the wheel, but of course it may have to be trimmed a little and adapted to today's conditions and knowledge.

The texts in the book *Ju förr desto bättre – kulturarvet som resurs för en hållbar framtid* are meant to be used in discussion groups, study circles or similar with the intention to map local traditions and traditional knowledge which can help us and future generations to learn how to sustainably use our biological resources and our landscapes in the future.

This is a cooperation between Naptek and the Swedish National Heritage Federation within the CultRural Project. We wish to thank our authors as well as the other people who have contributed to this compilation of summaries: Marie Byström, COAMA (Consolidation of the Amazon), the Gaia Foundation, Göth Bertil Johansson, Kerstin Eriksson, NordGen, Forestry Library (Swedish University of Agricultural Sciences), Stephen Manktelow, and Christina Waller.

Jan Nordvall  
National Heritage Federation  
Stockholm

Håkan Tunón  
Naptek, Swedish Biodiversity Centre  
Uppsala

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# Background

ANNA WESTMAN, NAPTEK, SWEDISH BIODIVERSITY CENTRE, UPPSALA

Your native place is unique, and the knowledge generated by generations about how to use the natural world based on the particular local conditions is a cultural heritage worth defending and protecting. The relationship between the landscape and Man differs from place to place. The interplay between local natural conditions and man's exploitation creates a changing landscape with mutual dependence. The geology, climate and biology of the landscape create the basic conditions for human existence. Man's exploitation has favoured or disfavoured the various components of the landscape. This has led to a diversified landscape with biological diversity, which has been created and maintained by human impact.

People has for generations learnt how nature works and how to use it in an optimum way. People have often strived for a sustainable use of resources because it was necessary for long term subsistence.



During the 19th and 20th centuries the common transfer of knowledge changed from oral traditions to written text books. The entrance of a public school was also to a large extent the exit of the oral traditions.

The knowledge on how we use and have used the natural world is a cultural heritage, a heritage that has been refined and constantly developed and transformed. Some has been discarded, replaced or forgotten. Thus is created a local knowledge about the specific conditions that prevail in the area and about its local flora and fauna.

This kind of knowledge may be difficult to *see*, i.e. distinguish from one's way of living. Tradition holders do not see their knowledge as something special. It is simply a part of the person's identity. Secondly, local and traditional knowledge is often in one's body, one's hand or in one's eye and may be difficult to describe in words. One does things without really reflecting, as when the garden lover pulls out a weed from the flower bed or picks from the tree an apple with mildew on it.

Apart from the fact that it is fun and rewarding to look for and preserve traditional knowledge, it can be valued in the same way one values biological diversity. There is an aspect of utility in keeping a diversity of knowledge to choose from for future needs. Biological diversity becomes more interesting if it is connected with the knowledge of the use of natural resources, the cultural heritage, that has created it.

In this book we will describe a few different methods and approaches to finding and documenting from an ethnobiological point of view. What traditional knowledge do we still practise, what do we remember and what remains of tools, techniques and traditional know-how. Can an ethnobiological dimension add something to the scientific and technological knowledge we normally value highly? Can we tell our history in a different way? Can it lead to the use of our historical experience in an active way creating a more sustainable society? What role can the unique local traditional knowledge play for the future modern community?

We face quite dramatic changes of our society as a consequence of our impact on the environment and climate. Maybe it is possible to find some solutions in our historical luggage. It has been possible before to live without fossil fuels. Humanity has been able to do so during most of our existence. Everything has of course





Photo: Håkan Tunón

How serious do we in the western world actually perceive the threat of climate change and global warming? The writing on the window goes "The Earth is being flooded. Stop the global warming! – A day at Scandic [a hotel chain] is a day closer to a sustainable world".

not been sustainable or environmentally friendly in all respects but there is no doubt that there is experience to make good use of. What is that knowledge and how can we put this knowledge into a modern context? Can our cultural heritage be a resource when the oil runs dry?

The view of the natural world and its inhabitants has continually changed in the course of time. The economic systems of peasant communities were based on domestic production and versatility. The landscape with its biological diversity was the resource people had and it took an great deal of know-how to use it in the best way. Through industrialisation and urbanisation this type of know-how about the local environment came to lose its importance for the majority of the population. The links between raw material and finished product become numerous and complex. The distance to nature and exploitation of nature increased continually. Our knowledge about the natural world came to an

increasing degree from books and pictures rather than from practice and the imitation of the work of adults. This has had great consequences for how we relate to the surrounding environment. Our local communities have also become dependent on global systems, market forces and economies.

This book will present a few examples of how to search for, make an inventory of and document traditional knowledge. But it is also important to show how this knowledge can be used in a more resource preserving community. Local associations, museums and others work in a very commendable way to preserve our cultural heritage. The intention of this book is to give another dimension to that work and to emphasize the use of preserving and telling our history - that the cultural heritage can actually be a resource, a bank of knowledge for the building of a more sustainable society.

# Diversity in use and energy smart pastoralism

KELVIN EKELAND, NORRBO

Man has always been an active representative of the organisms that shape the landscape and the biodiversity. But often – especially when it comes to nature conservation – man is only seen as a disturbing element in an otherwise “natural landscape”.

If we use forest as an example, ‘nature conservation’ makes a great effort in protecting old forests in national parks and to leave them for free development. But nature and the biological cultural heritage are in a situation of permanent and often cyclical change, where part of these cycles consisted of the disturbances that traditional exploitation gives. In order to preserve certain species or a certain condition in a forest, extensive cultivation and care may be needed. Even the best biological inventories are not particularly useful without a historical context. The landscape has always a history and most often man’s exploitation has had a share in this in one way or another. Historical knowledge is necessary if we want to preserve biological diversity in the landscape.

The largest part of Sweden’s forested area of about 230 000 square kilometers has been used for agrarian production during some period over time. Thus you find a great deal of our agrarian heritage in the forest and in the outlying land of old agriculture. Even in other wooded areas man has been active, above all in

hunting but also in coal and tar making and other pre-industrial activities. We must not forget the culture of the Sámi people and reindeer breeding. The uses that have influenced our forests are consequently from different times and of the most various kinds. The wooded grounds are accordingly Sweden’s greatest historical archives. These archives are to a great extent alive. It is therefore more demanding to maintain all the environmental values of forests than it would appear at a first glance. In order to be able to safeguard biological diversity you need historical knowledge and analyses of the ground. You must try to understand why you have this biological diversity. The answer to the question how you should maintain natural and cultural values in the forest is definitely to be found in our local experience and history.

## Energy smart pastoralism – Production and consumption

We are influenced daily about production and growth and that growth brings prosperity. The assertion about growth and increased resources is put on its head when we ask if what we call production is not in fact consumption. What economists call economic growth, is that not really embezzlement of the values we have inherited? Once, it was evident that the contents of en-



Photo: Göth Bertil Johansson

The Swedish mountain cattle *fjällkor*, a local breed, are well adapted for forest grazing in a mountainous landscape. They are satisfied with the local flora and produce a decent amount of fat-rich milk suitable for cheese production. To let the cattle to a large extent take care of themselves is an energy efficient way to keep animals.





Photo: Kelvin Ekeland

One of the traditionally most important products from keeping cattle was the manure. In times when lack of fossil fuel will limit our possibilities to produce industrial fertilizers, the values of manure will increase.

ergy in the harvest should be greater than the energy that was used to keep livestock and to cultivate the soil. The sunlight and the photosynthesis of plants made it possible. If this had not been the case, no traditional peasant communities would have existed. You still find traditionally irrigated rice paddies in different parts of Asia where you get ten to fifteen times the amount of energy put in.

In Sweden the use of summer shielings and mountain summer pastures can present a similar energy efficiency. In a study an energy cost estimate was made for a summer pasture in the beginning of the 20th century with eight people, one horse, six cows and five calves. In this system every unit of energy put in generated four units of energy. We can compare this with the most energy efficient form of production in animal production

– the production of milk, which demanded an input of three units of energy to yield one energy unit. The negative balance of energy can be found in the whole society. An analysis of animal breeding in older times with large extensive pastures can show the way towards a development more adapted to the environment. Breeding locally brings down the costs. Forage from natural pastures especially in the mountains is said to be particularly nutritive and gives better meat and milk. Livestock that is not given concentrated fodder also emits less methane gas. Increased grazing on outlying lands could include the protection of traditions, preservation of native breeds, nature conservation, conservation of the cultural environment, recreation, forestry, local production of food, tourism and development of rural communities.

# Mapping the invisible

HÅKAN TUNÓN &amp; ANNA WESTMAN, NAPTEK, SWEDISH BIODIVERSITY CENTRE, UPPSALA

We are continuously leaving traces in our surroundings. Some traces are obvious, but most are visible only to the inner circle. Our memories and experiences are often closely linked to the landscape, but they are obviously invisible to others.

What traces remain in the landscape from our childhood? Are there traces of our picking of flowers in the spring, wild berries in the summer or mushrooms in the autumn? On the map, the forest is depicted green, the fields are white, houses are small squares and the roads are black lines. But how is our childhood depicted? Where on the map are those things that do not leave any traces? Maps are generally considered to be objective and based on facts, but since most of our subjective memories are related to geographic positions, these links ought to be present too. We are all carrying an inner map!

Culture is a filter through which we interpret our vicinity. Our exploitation of the landscape is based on our knowledge and experiences. Our background determines our way to understand and value the landscape. The craftsman, farmer, fisherman or hunter all view the environment based on their trade's individual knowledge system. The exact same area is viewed in many different ways.

## To increase visibility

In different places all over the world, people from local communities have started to draw their collective maps showing their diverse use of natural resources. This has often been part of a process for indigenous people claiming the rights to their historical territories. In Canada, Indians and Inuits have used their maps to legally fight for the rights to their traditional territories based on their land tenure. They have showed that the 'wilderness' was actually an intimately known neighbourhood to the locals. In the same way, South American Indians and local tribal people in Africa have described their close links to their traditional land. The common purpose is to make the local history visible and to strengthen the peoples' right to their territories.

These kinds of mapping processes have been called *eco-mapping*, *cultural mapping*, *community mapping*, *participatory mapping*, or *ethnocartography*, and they are all different ways to put a local culture and traditional knowledge on the map. It shows the local community's own view of the neighbourhood and the peoples knowledge of the vicinity.

## Calendar of annual land use

Traditionally land tenure and the use of local resources is closely linked to different seasons. One way of showing and preserving knowledge is to construct ecological calendars illustrating some of these links. Calenders can show the annual activities related to local fishing; i.e. preparations, the actual fishing and the processing of the catch. In the same way any activity can be depicted through the year; in twelve pieces of a “cake”. This can result in beautiful and unique calendars showing the richness and detailed knowledge in local traditions.



Indigenous people of the Colombian Amazonas (COAMA, Consolidation of the Amazon) has prepared maps over their present land tenure to strengthen their negotiations with the government.

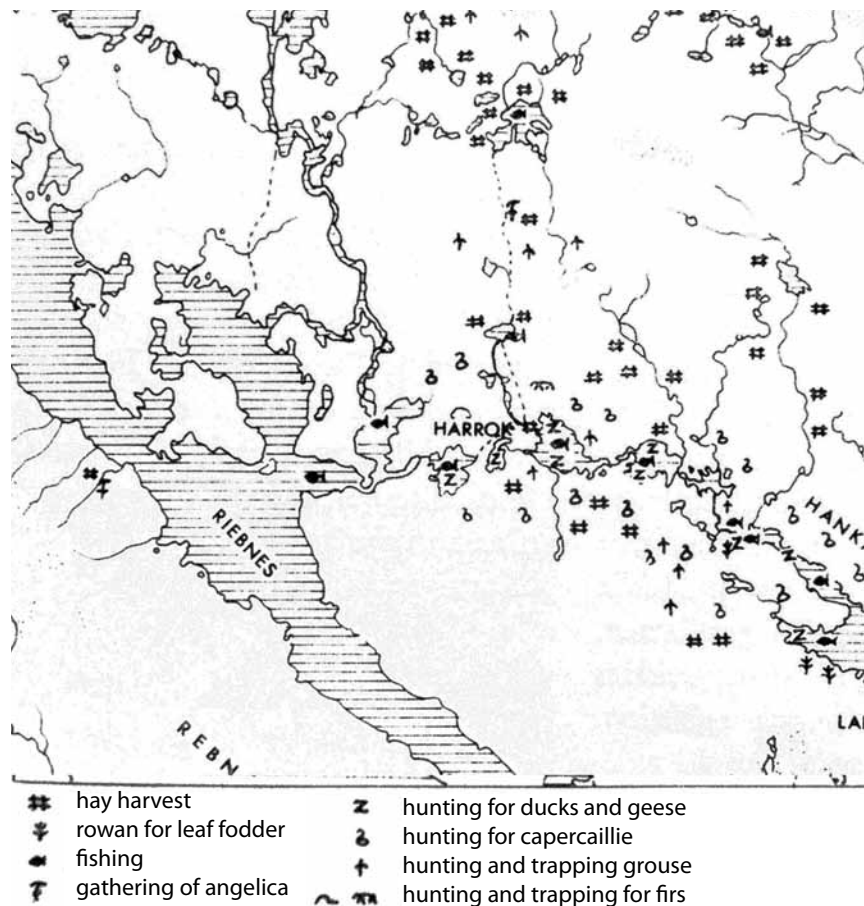




Swedish school pupils are demonstrating the knowledge they have just obtained from elder members of the communities. A small scale project in ecomapping leads to a new insight in the local traditions and a better understanding of the conditions of earlier days.

The process of making calendars can be used in schools to transfer knowledge from one generation to another; a process creating a common cultural background for the people in the community. In this way the intangible cultural heritage in a community and the local land tenure can also be documented and strengthened. This cultural activity can be developed into a powerful tool in the process of political planning.

A map over the traditional land tenure in a Sámi settlement in the Northern part of Sweden shows an intense activity all over the landscape. This is a landscape of production and not a wilderness as often stated. The people wandered tens of kilometres away from the settlement for different activities, e.g. hunting, fishing, fodder collection. This map was drawn in the 1960's, but depicts the situation during the first decades after 1900. (Ruong, 1978)





Today it is just a bog, but fifty years ago it was necessary to be able to distinguish different kinds of wetlands based on their potential usefulness. An extensive knowledge has been lost. Photo: Håkan Tunón.

## Place-names – a mirror of yesterdays' knowledge communities

LARS-ERIK EDLUND, DEPARTMENT OF LANGUAGE STUDIES, UMEÅ UNIVERSITY

Language is a living cultural heritage and a source of knowledge with many dimensions. How and what people have named places tells us a lot about the reality of ancient times, how people looked upon and used the landscape and its resources.

You sometimes hear people claiming that we are now on our way into a society of knowledge. Somehow it is as if there were no communities of knowledge in the past. To me as a culture researcher it is important to emphasize that we are now on our way away from other, completely different communities of knowledge.

Dialect words, if they are interpreted correctly, often give the observer of today a chance to understand how people in ancient times categorized reality and what distinctions were considered valuable to maintain in the formation of words. In this way we automatically get access to the thinking of an earlier time. Another matter is that it is not always easy to extract from the words their innermost secrets.

When studying place-names you are struck by the variety of terms there were for use to describe hills or wetlands in earlier times. Today it may be difficult to understand what these terms really designated. But it is natural that the people who lived close to nature and were dependent on it for their survival had the need of a differentiated vocabulary.

The work with trying to understand and extract from dialect words their secrets gives you a great respect for times long gone and for the extensive and profound knowledge that people from ancient times had. A few times the material even gives you scope for certain social reflections, such as when the terms give you indications about the distribution of work between men and women.

Through the dialectal words denoting nature conditions of the ground we get evidence of an ancient community of knowledge which was rich and advanced.



# To discover and gather traditional knowledge

YNGVE RYD, JOKKMOKK

To those who do research on traditional knowledge it is still possible to discover a great deal of new knowledge. The fact that there is no documentation in museums and archives does not mean that it is lacking in people and in the landscape. How do you make people's knowledge visible?

At the turn of the century 1900 Swedish museums started gathering the knowledge of old rural societies, and even then it was regarded as a rescue operation. The task was to document knowledge that quickly disappeared when society changed. The archives got filled with folklore records, and one may ask oneself what remains to be done today. Can one do more than study old records? Oh yes! There is for example a lot of material in archives and books about forestry. Anyone who starts in the archives may believe that everything is already recorded. But you can also start from the opposite direction. First you accompany an old horse driver into the forest to get an insight into the art of driving horses. Then you go to the archives to see what is there. It just takes a few hours to discover that most of the

knowledge that concerns driving horses has never ever been recorded.

For several years I interviewed the reindeer herder Johan Rassa about snow and ice. The finished book contains more than 300 pages. A single reindeer herder told me much more about snow and ice than what has been recorded earlier. Many words for snow and ice had never been recorded before. How much does a man really know? Snow and ice is after all a very small part of a reindeer herder's whole traditional knowledge. If the same person tells us exactly all that he knows, it would certainly fill an encyclopedia of fifty thick volumes.

Anyone who starts in archives and books has trouble finding the vast subject fields that have not yet been dealt with in writing. It is easy to believe that the more you read the more you know. But you only learn more about that which has been written down. What has not been written down is as unknown as before. It took me several years to realize that fire is a large subject to investigate. Another subject field that I have been working with is something I call "to travel". This is among



Photo: Hälsinglands Museum

The knowledge system of a horseman involved in the labour intensive forestry of the first half of the 20th century was immense. It involved knowledge about the horse as well as the carrying capacity of the sleigh. Still this is an energy efficient way of doing forestry.





Photo: Gunno Kinnman 1930/SLU Forestry library

What skills were needed to be a lumberjack and cut down trees with axes? Even though people may have described the different types of axes that could be used there is almost nothing documented when it comes to the actual use of this tool. There is also none or a very limited documentation done on the other parts of the necessary knowledge system.

other things about finding your bearings, how you keep count of the cardinal points in different weather conditions, how to choose the most suitable way to walk in the forest or on the mountain, how to wade across brooks and to estimate snow bridges across brooks in the mountain in the summer. There is a small number of man-made objects that are tied to the subject traveling, like the hiking stick and skis. People have written about skis, their construction and decorations. But how do you do when you go skiing?

One thing you can say about practical knowledge is that it is always true! If man a thousand years from now will have forgotten how you burn fresh birch twigs and tries to learn it again without previous knowledge, the result will certainly be the same as when you burn birch twigs today. You can't vary the burning at random. It has to be directed very exactly within fixed parameters. In ethnology this is usually called "the limited number of solutions".

For an archaeologist it can be difficult to understand how finds and remains have been used. Take an arrow point for example, of course you see what it is, but how do you shoot and hunt with bow and arrow? How do you use a ski stick? I now know it can be used in more

than twenty different ways but you can't see that on the stick. To find out from your own experience how an object can be used involves a great deal of work.

At the time when people were digging ditches by hand, a couple of hundred skis were found in bogs in Sweden. Why were the skis there? If there are no accounts, you tend to interpret such finds as cult ceremonies, offerings. I found an old forest Sámi who knew exactly what it was all about. Skis were made of a very specific type of pine wood (which was used since it made the skis suitable for skiing on the crust of snow in spring time), were laid down in bogs during the summer, to be taken up and bent to their correct ski shape in autumn. When the ski dried in the air the next spring the pine wood straightened itself and the ski had to be put down in the bog again the next summer. Not into lake water, which is harmful to wood in the long run, but into bog water which does not affect the wood. A competent person could give a simple and obvious explanation to a problem that was almost impossible to solve in the archaeological way only.

I often get the question how much time I spend in the field with my informants. People seem to think that if the knowledge is hard to find, then it must be in the



Photo: Håkan Tunón

A reconstructed log fire in Jokkmokk 2008. This fire is kept between two logs and burns at the entire length of the logs giving a most pleasurable warmth to the people sleeping next to it in the cold Arctic night. To cooperate with experienced tradition holders in these kinds of reconstructions knowledge is better documented.

field, “in practice”, “in reality” you find it most easily. The truth is that most of the knowledge is extracted at the kitchen table. Take for example different kinds of snow. In the forest it is easy to just point and say: This is *släbstat*, or this is *dejkar muohta*. But this will not do as an explanation, it will not do at all as text in a book. Instead, it is at the kitchen table that detailed descriptions and explanations are chiselled out. At the kitchen table you can’t explain just by pointing, instead detailed explanations with words will be necessary. In the course of time I have many times experienced the usefulness of being persistent, not leaving a question just because you do not get a good or distinct answer at once. In order to dig deeper into a subject you must talk to the same person and together dig beyond the surface. The correct method of investigating large systems of knowledge is

to make hundreds of interviews with a few or just one quality informant.

To wind on among details you must talk often, about three times a week with the same informant. After each interview you should revise, then interview again and so on. This is crucial. After an interview I go home and start at once working on my notes and try to formulate a comprehensible text. Sitting at home writing my brain is forced to work to the full and more questions arise. I take these questions to the informant no more than two days later, and then I go home again to write and again ask new questions. In order to secure all the details we discuss and thrash over the questions on many occasions and from different points of view. We return constantly to what has been said earlier, check, cross out, change and add.



# Pictures as a source of knowledge

ANNA WESTMAN, NAPTEK, SWEDISH BIODIVERSITY CENTRE, UPPSALA

We are daily exposed to pictures of all kinds e.g. postcards, paintings, and sketches. Every picture tells a story and what it tells depends on the artist and the beholder. Why and for what purpose or intention was the picture produced? What experiences of the beholder influences his or her interpretation of the picture? Some pictures are true realistic impressions of a contemporary reality, but very often the artist has altered some parts to enhance the desired message.

However, pictures can be a marvellous source of information about people's land tenure, use of biological diversity, and how the landscape is affected by human activity. This essay exemplifies some of the possible kinds of pictures that might work as sources of information concerning human activity and natural resource management. Before analyzing what an picture can tell us about the use of natural products it is worthwhile to take some time to think about the context in which it was created. What did the artist or photographer want to show with the presentation? Is the motif typical for the time or something rare? Local or general? Are there any signs of foreign influences or fashions when it comes to the selection of motifs or themes in the picture?

Many pictures contain much more information than the actual motif. For instance an outdoor portrait

shows a person, but also the background scenery. This can be compared with today's landscape at the same spot, but may also show details about the contemporary land tenure. There might be an identifiable flora and perhaps different kinds of tools in the picture. Are there any animals present in the picture? "What?", "Why?" and "How?" are excellent questions!

## The history of pictures as sources for information

The earliest available pictures in Sweden are the rock carvings and paintings. Most of them are from the Bronze age, but some might be as old as 7 000 B.C. They depict objects (like axes, swords and boats), animals (e.g. bears, elks, horses, ox, pigs, salmon and whales) or activities (e.g. hunting, ploughing, and shepherding), but they only at best give very scant information on the land use at the time. Also the rune stones have limitations when it comes to detailed information. From the Medieval time there are mural paintings in churches that show standard reproductions of Biblical events, and in some cases original presentations with more local information. There are also pictures of different kinds in medieval books, and a frequently used source is Olaus Magnus' "Historia de gentibus septentrionalibus" (1555) (History of the Northern people). The pictures in this is, however, drawn by Italian artists

What does a photograph actually tell? Often there are not only people in the picture, but also surroundings. In this case the picture from the 1930ies has been taken in the kitchen garden with flowers, potatoes, and bee hives. What can they tell us about the local gardening traditions?



Photo: Unknown





This painting made by the famous Swedish painter Carl Larsson (1905) shows the slaughter of a pig. The painting shows the necessary items needed for the slaughter and the following care-taking of meat, blood and intestines. It is a realistic description of the activity.

based on the memories of Olaus Magnus after thirty years of exile. The exactness is therefore often distorted beyond recognition. These kinds of pictures ought to be used in connection with other available data, e.g. from archeological excavations, to be able to tell anything from the local context.

During the 17<sup>th</sup>, 18<sup>th</sup> and 19<sup>th</sup> centuries, a variety of magnificent, illustrated books were published. In the periphery of depicted castles and cities, there are sometimes detailed sketches of common people's everyday work. Often, the best information is available in the pre-print illustrations. The final illustrations are often made more continental by the foreign engravers that finalized the volumes. During the same period landscape paintings were in fashion and they present an interesting material to study in this context. Some artists have created truer impressions of the landscape than others. During the 19<sup>th</sup> century with the advent of romantic

nationalism the scenery turned wilder and more pristine, at least in the paintings. There was also a growing interest in local cultural traditions that can be seen in the paintings.

In the late 19<sup>th</sup> and the first half of the 20<sup>th</sup> century, autodidact painters travelled the country, painting farms on commission. These paintings show the Swedish countryside in a naive way, but they are often rich in details. During the same period, photographs and films emerge as potential sources for information. Some have been taken by private photographers and for private use while others are taken for commercial or official purposes, e.g. postcards or cultural documentation.

It is interesting to make an inventory of the local material and evaluate what these pictures can tell us about local traditions and land tenure. But more important: What can they tell us about the ways to a sustainable future?



Photo: Håkan Tunón

## Objects and future

EVA CARLBORG & HELENA ÅBERG, COUNTY HANDICRAFT CONSULTANTS

Both our museums and our own homes are filled with various objects. What do these objects tell us, if we really listen carefully? Without exception we end up in the landscape and in our use of nature when we look for their origin. The raw material is taken from the natural world far away or close to us, more or less refined or processed. If we want to document traditional knowledge linked to the use of nature, objects are a good start.

In fact you can begin the documentation wherever you like. Pick up an object close to you and think about its roots. What is it? Why do we have such a thing? What need does it fill? How have people filled that need through the ages? What material is it? Where was it taken? What does/did the processing technique look like? How is the resource used affected by the harvesting, and how is the landscape affected? You can also look out through the window. What does the landscape and what does the birch tree over there tell us? How can it be used?

The thought does not have to stop at historical objects. Material for space rockets and food processors,

tables, chairs and computers also come from the landscape and these objects too consist of processed natural resources developed out of the knowledge we have generated for generations. Before the breakthrough of fossil fuels, there was already an advanced technical development, that took the direction it did with the new possibilities that were offered with the new kind of energy. Today we face a new reality with our awakening understanding of the global impacts of human activities and the looming climate crisis. We have to look for new technical solutions to manage human survival. We can draw a lot of experience from the knowledge of older days, and if this is coupled with modern experience there is a great possibility to reach a more sustainable development of our society.

With two domains of material – textile and wood – we present examples of knowledge that can be taken from an object both in an economic context, that is economizing use of natural resources and its relations to the landscape, and what possibilities traditional knowledge offers for more sustainable use of resources in the future.



# Wool – a material of opportunities

EVA CARLBORG, COUNTY HANDICRAFT CONSULTANT, GÄVLEBORG

The Swedish word *slöjd* (handicraft) is derived from the Old Norse word *slög* which is related to *slug* (shrewd, resourceful). To be resourceful is a great asset in handicraft, especially when it comes to utilizing the particular qualities of various materials. A hand-made object holds empirical know-how, both in technique and material, often gathered by several generations. Know-how that we can use and develop for the needs of our time.

## Wool - our oldest textile material

The sheep, together with the goat and the dog, is among man's oldest domestic animals. They have followed us for thousands of years up to our times. Wool is the oldest woven fabric in the Nordic countries and has been a prerequisite for humans to settle here. Sheep have been kept for the meat, the fleece and the wool, and various races have been bred to fill different needs.

In Sweden it is the fleece and the wool that have had the greatest importance, and this is reflected in the Swedish native breeds. In spite of the fact that the authorities on several occasions recommended the breeding of imported races, the peasantry stuck to their traditional sheep. They were adapted to the climate, they seldom fell ill and the wool was warm and was excellent for making the vital rough homespun cloth. In the domestic craft movement, the Swedish native breeds were brought forward during the 20th century and in cooperation with sheep owners and spinning mills various qualities of yarn were developed, where the wool was chosen from the properties people wanted the yarn to have. Yarn for knitting, for making rugs and for tapestries are some examples.

## Wool and sheep have a future

In old rural societies people kept native races that were not usually bred for a particular type of wool. People simply used the wool available at the farm. The wool could be spun or twined in different ways according to the intended use. With a more specialized manufacture for sale, the choice of race and breeding could be controlled in a completely different way. In the begin-



The methodology to process wool to yarn is a fairly global tradition with minor geographic differences. There is however a variation in the species or breeds of the domestic animals supplying the wool. Photos: Eva Carlborg.





Wool can be knitted into various objects such as sweaters and gloves, but it also has a special ability to felt itself and is therefore also suitable for felting. Alongside art craft wool felting has become popular in educational activities aimed at children and youths. Photo: Eva Carlborg.

ning of the 20th century the domestic craft movement worked with a fixed purpose to produce wool with different properties for various types of yarn. We then talk about an industrial manufacture of yarn.

In recent years we see an increased interest in preserving Swedish native breeds, and various associations have been established to look after the special interests of sheep owners. An important reason for keeping sheep today is the environmental aspect. The sheep races and the Nordic climate make the need for using parasite killers minimal. Sheep contribute to keeping our landscapes open. Otherwise they would have become overgrown. Brushwood can be used as additional winter forage, and the manure is an asset in cultivation. Mutton produced locally is another aspect of environmental thinking. The fact that you can hand in the wool at the spinning mill and have

it spun into different sorts of yarn is a way of getting an insight into textile production and of making sure that the production is carried out in a good way, for the wool and for the environment. There is a great interest for handing in fleeces for currying and having them curried in a non-polluting way and preferably without long transports.

### Qualities to preserve

Recycling has been an important aspect in handicraft, especially when it comes to textiles. Can we learn something from this today when the textile industry is very detrimental to the environment in certain parts of the world? Can we afford to see textile products as objects we throw away after a short period of use? Is it possible that the skill of milling textiles to make them more durable can be used to a greater extent than today?

The warmth from a blanket serves its purpose even today and can actually increase our well-being. An investigation has shown that we get a calmer and better sleep under a woollen blanket compared to lying under a synthetic quilt. The capacity of absorbing and emitting body moisture is an asset in woollen sweaters and outdoor garments. They keep you warm out-of-doors and when we go inside they cool you down when the moisture starts evaporating.

Wool is a fantastic material to resist dirt. You keep woollen textiles clean and fresh by giving them an airing and they do not have to be washed so often. They save work, energy and are not a burden on the environment in the form of detergents. Wool is resistant to creases and you do not have to iron it as much as cotton and flax.

Wool from Swedish native breeds can be used in many ways, but not for everything. If you are very sensitive to prickly wool, not even fine wool is soft enough to be used directly on the skin. As textiles for interior decoration, wool has several advantages. Wool is flame-proof and could be used to replace non-flammable treatment of textiles in places where you do not need the highest class of fire protection.

It is well-known that the ability to create things on your own has been of great importance for people's well-being and it has been applied for example in therapy. First-hand experiences are important to people, especially today when our society consists of many second-hand experiences, i.e. consumption.

# Traditional knowledge of wood

HELENA ÅBERG, COUNTY HANDICRAFT CONSULTANT, SÖDERMANLAND

Different sorts of wood have different properties. Some are hard, others are tough, light or resistant to rot. The knowledge about the different properties and how it can be used is very old. How old is hard to tell because wood is an organic material that decays when it stays long enough in the ground. However, wood has sometimes been preserved in conditions which have prevented the decaying process, and hence we have some findings to assist us. One example is the Iceman Ötzi who was found in the Alps in the beginning of the 90s on the border between Austria and Italy. Using the C14 method, it was established that he had been lying frozen in the glacier for about 5300 years. In his traveller's kit he had several objects made of different kinds of wood.

The wood used for his different objects was consistent with the knowledge we have today of what different kinds of wood are suitable for. Among other things, he had a bow of yew, a knife handle made of ash with a sheath tressed of twined lime raffia, a canister made of birch bark and a rucksack frame with details made of hazel and larch wood. Other older finds of wood have been found in the Egyptian pyramids and in the Danish oak coffins from the Bronze age. Recently a number of old wooden objects were found in Älvängen not far from Gothenburg. The objects turned out to be about 1700 years old and are consequently Sweden's oldest wooden finds. Among other things were remains of a wheel, a container, bowls and a yoke.

Apart from being familiar with the properties of different trees, people have also known and taken advantage of how different ways of growing and how different parts of a specific tree could be used for various ends. There still remains a lot of know-how about wood and the preparation of wood, even if everything has not been practiced as often as in pre-industrial society.

## Examples of the various properties of pine wood

For details that are exposed to rot, such as the piece below windows, the ground sills of the log house or posts, fat and resinous heartwood of pine is very suitable. Dry pine trees contain a lot of resin and can be used for



Photo: Kerstin Eriksson

To whittle and carve wood requires extensive knowledge of the behaviour of different woods. This is something that cannot be transferred from books, but requires a lot of experience that you can only get from practice.

these purposes. Besides, you can create resinous wood by barking the growing trees either in stripes along the trunk or by ring barking. The pine then tries to heal the wound by producing resin, which makes even the surface wood resinous. It takes about six years before the tree is ready for felling after this treatment. Similar methods have been used to get wood for making tar. If you want to make chip baskets you should choose old, fully matured pine trees that have grown straight and very slowly.

According to the basket maker Lissy Olovsson in Linsell the annual rings should be as close as the pages of a hymn book. You can only use the surface wood to make chips. The heartwood is far too brittle. The cleft chips that are used in basketry are between 0.5–1 millimetre thick. By cleaving them by hand instead of planing them with a chip plane, you follow the fibres of the wood. Adding the fact that the wood has grown very slowly you get very strong chips in spite of their thinness. The most suitable material for houses and furniture is wood where the annual rings are 1 millimetre apart and has a large proportion of heartwood. Pine-wood that has grown very slowly in poor soil is considered less durable. When the soil is too poor the tree





The roof is supported by root-legs, the naturally curved part of tree where the trunk goes into the root. These parts with naturally curved fibers have a special strength which is not found in pieces of wood sawn into the same form. Selfgrown material often has great advantages when it comes to strength. Photo: Helena Åberg.

can't produce the tough summer wood. That is why it becomes more brittle.

### Using the tree's own shapes

Different growth habits also affect the areas of use for the wood. If you want to make curved objects you make them strong by using wood with a crooked shape, the same form as the object you have in mind. In the agrarian society it was everything from runners, shafts, ploughs, the long poles of the scythes, spoons and ladles. To get an angular material without a joint you can use root legs, that is the transition between root and trunk. Traditionally they have been common for making boat frames, the consoles of roof constructions, gables of looms. Root-legs of pine and fir is what you find most often but root-legs from other kinds of wood have also been used.

### Different kinds of wood in the same object

Sometimes you need different qualities in different parts of the same object. The rake is a good example. The handle should be light in order not to tire out the raker. A suitable material could be fir or alder. The comb on the other hand should be made of somewhat harder wood to last longer. Here birch and ash are sui-

table kinds of wood. The prongs that risk getting stuck in roots and stones need to be hard and smooth. That is why lilac, hawthorn, maple or rowan have often been used. Other objects that have been traditionally been composed of different kinds of wood is the wheel where people have used a hard kind of wood for the hub, a strong and straight-growing kind for the spokes and a tough kind of wood for the rim.

### Working wood on growing trees

Apart from choosing from the kinds of wood that have been available, people have for a long time known how to work wood on growing trees to get the desired properties. When wood was needed for thin, oblong objects such as handles of tools, rake combs or swing-bars, it was possible to get a strong material by inflicting damage on deciduous trees, above all birches. You make vertical cuts into the wood. The birch then heals the damage by growing over the cuts and so called surge wood is formed. After 20 - 25 years the surge is so large that you can get material for two axe handles. To work trees in this way has been more common and justified north of the river Dalälven, since the access of hardwood has been more limited there than in the south of Sweden, where oaks, ashes and beeches grow, all of



which are hard and possess different useful properties. Other examples of getting the desired wood is to bark the growing tree in the way that has been described in the section about the pine tree. Another technique used was to top young fir trees or bind them down to get suitable bows for bow-saws.

### Basketry - an example of a global technique with local material

People primarily utilized the material that grew in their own neighbourhood, and hence there have been many local variations in traditional woodwork. An interesting example is baskets. Making baskets is a global and very old craft. The fact that baskets have been so widely spread around the world shows important functional importance when it comes to the storing of goods, collecting and transport. We divide basketry into two main techniques, woven and bound baskets, and these are similar all over the world. But the material differs depending on where in the world you are.

Even in a country like Sweden, there is a great difference in material and type of basket in various parts of the country. In the south of Sweden, materials like willow, straw, hazel and juniper are common. In the middle of Sweden you often find the root of the fir tree and in the north, the root of birches and pine chips have been common. In the west of Sweden there have also been baskets made of pine chips, but of a com-

pletely different type with thinner chips. Here, people have also used bast of fir in the so called herring baskets. The division above is rough and there are many local variations.

### Can we bring historical knowledge into the future?

There is a great deal of know-how in handicraft of older days, which is about utilizing our resources in the best possible way. How can we use yesterday's competence in material, and skills of craftsmanship in wood, to create a more sustainable future? One example can be to produce wood which is resistant to rot by barking and in so doing reducing the portion of wood impregnated with chemicals. Another example is production at a smaller scale using local material. Then you can choose your material with care, which means that it will have a longer life span. If you in addition to this use machines less, you will save energy. It may not seem much in the bigger picture, but all the ways of economizing our common resources make a difference on the whole. To make something on your own with inspiration from history also gives other values in the form of creative joy, knowledge and quality of life. If you do it together with others you also get a social community. The greatest guarantee for passing knowledge on to future more resource preserving society is that we use it continually.



A birch stem cut into a natural curve to represent the shape of a spoon. The tradition of choosing materials for different items based on their natural shape is seldom used in largescale production of wooden items consequently leading to poorer quality and a shorter life span. This might be an important knowledge for the future.

# Food, traditions and environment

ANNA WESTMAN, NAPTEK, SWEDISH BIODIVERSITY CENTRE, UPPSALA

Throughout history we have been completely dependent on our environment. Man has used nature for clothes, tools, housing and for many other purposes. The most important use however is for food!

But what do we actually eat? Our traditions concerning food are continuously changing due to influences from other cultures. During the 20<sup>th</sup> century, food has been increasingly imported from the other continents, to an extent that has now made us value locally produced food as delicacies. There are also interest groups especially promoting traditional artisanal food processing. This is usually done in an environmentally friendly way.

Our food, and the way it is produced, has a direct link to the landscape. But how different is the relationship between food and landscape of today, compared to that of yesterday? Once we had a large diversity of cultivated plant species and domesticated animals. This was especially evident when it came to local varieties and breeds. These have a genetic diversity that may prove essential for future challenges that we might face when

the climate changes and the oil stops flowing. Today, for instance, the majority of wheat fields in Sweden are all cultivated with the same single wheat variety! The hazards of plant epidemics are increasing due to the farming of monocultures. In some cases, science has shown that local varieties have been better adapted to the local climate and are generally less dependent on fertilisers and different kinds of pesticides. We need to know more about our common history of land use and food production for the sake of tomorrow.

An equally important issue is how the food is processed. In a world with a climate crisis and less cheap fossil fuel we may have to process food differently. Is it possible, for instance, that the ways our grandparents preserved and stored food could again be the ways of doing it in the future?

## Local breeds and varieties – a biological cultural heritage

Domestic breeds and local varieties might be looked upon as a cultural and historical heritage. Furthermore

A hard cheese made according to local traditions. A long storage period for more than two years gives an extremely rich taste. This is slow food at its best. The farm holds a local breed of cattle *fjällnära fjällkor*, that are allowed to graze freely in the surroundings and hence also contribute to the rich flora and fauna. The cheese represents a good example when traditional customs and biodiversity conservation meet.







Photo: Håkan Tunón

Upper: At the extreme left is the very last *värmlandsko* among some *vånekor*. She is gone now. Many of the traditional local breeds of domestic animals are disappearing today, but we have a limited knowledge of the values lost.

Right (from top to bottom): *Mandelpotatis*, *Blå Dalsland*, *Sparrispotatis* and *Backpotatis* are local potato varieties with specific characteristics, both when it comes to the cultivation and the culinary aspects. As a measure for crop security it is important to keep a good biodiversity when it comes to local breeds and varieties.

they may contain genes and properties that could play an important part in our future food supply. For example, some commercial grains are more sensitive to certain crop diseases. This creates a need for more intense use of pesticides. Older farming techniques can also reduce the risk of crop diseases. However, local varieties normally give smaller yields. Domestic breeds have evolved under pressure, which has made them adapted to local climates and soils. Other traits that have been interesting for the local farmer have been baking quality and taste.

The UN agency FAO reported in 2007 that there was massive gene erosion in cattle – local breeds are disappearing fast as commercial breeds take over. The same loss of genetic material applies to all livestock, e.g. poultry, goats, horses, pigs, and sheep. But occasionally, products from lower yielding local breeds can actually be more appreciated, both culturally and culinarily. Dairy products made from special local breeds of cows grazing on semi-natural grassland are considered to be delicacies. The milk and meat from these cattle are also richer in unsaturated fatty acids, although the health effects still need further research.

There is an urgent need to document local traditions and customs when it comes to all aspects of food processing and storage, as well as how it affects our landscapes and their biodiversity and the ecosystem services supplied. How has our landscape been shaped by historical land tenure and how is our present society treating our environment? What kind of knowledge do we need to find for our society to be sustainable?

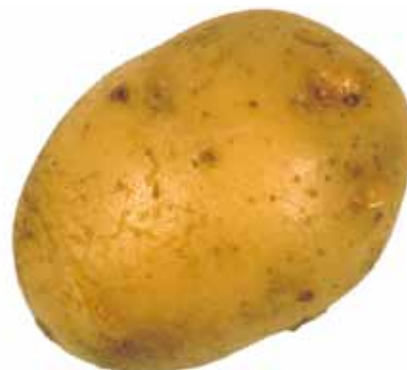
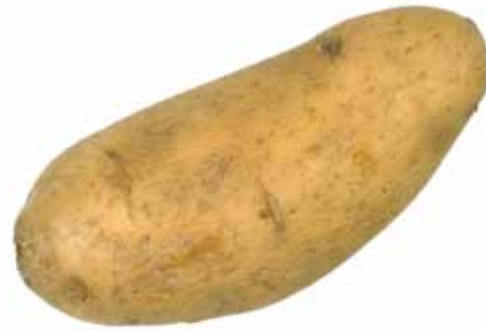


Photo: Nordgen

# Traditional medicine and local cures

HÅKAN TUNÓN, NAPTEK, SWEDISH BIODIVERSITY CENTRE, UPPSALA

Many people have an interest in traditional medicine and medicinal plants, but it is an area with lots of pitfalls. Sometime local traditions are less 'local' than first expected. Much of the medical traditions and local cures have an origin in the older school medicine. Sometimes it can be traced to ancient Roman or Greek sources. The local knowledge might thus be almost global since local folk medicine has been influenced by the medical scholars for a long time. Often a main thread can be clearly identified leading from Antiquity to at least the early 20th century. Cures discarded by school medicine during 18<sup>th</sup>, 19<sup>th</sup> and early 20<sup>th</sup> centuries were sometimes later adopted by local healers. Both folk medicine and the older school medicine have been depending on "magic" parts of the treatments. Rituals, verses and different kinds of prayers were considered as essential for a successful treatment. There is a *rational* and an *irrational* part of the treatments. Also today prejudices and expectations are of importance in modern medicine.

The cures often consisted of different medicinal plants, but parts of different animals and minerals were also common in medicines. One should not for-

get magical or sacral ingredients prepared from items connected to the church (e.g. metals with stains of wine from the Holy Communion), nor more macabre objects from public executions and graveyards (e.g. lichens and mosses from tombstones). It wasn't seldom that one bought readily made pharmaceuticals from the pharmacies to use as an ingredient in medical cures prepared by traditional healers.

Although there is extensive documentation on traditional medicine in Sweden, this is still insufficiently described. Sometimes the only information available is that a certain plant species is used for a certain ailment. This is of course highly unsatisfying. From an ethnopharmacological perspective, one needs detailed information on the content and preparation of the cure.

According to my point of view the following information ought to be searched for:

## 1) disease/ailment

It is important to have a clear idea what disease or symptoms that the drugs were intended to cure.

## 2) content

An exact knowledge of the composition of the cure is essential. If it consisted of medicinal plants one requests information on what species, plant part, season for collection, etc.

## 3) preparation

The procedure for the actual preparation of the ingredients and the final cure is important.

## 4) way of administration

Was the cure used internally or externally?

## 5) dosage

How much and how often was the medicine taken? Once or twice a day or more?

## 6) length of the treatment

One single dose or regular intake during several days or until recovered?

## 7) side-effects

Are there any known side-effects?

## 8) contraindications

Can anybody use this cure or are there limitations? What about during pregnancy or breast-feeding? People with allergy or kidney diseases?



Photo: Håkan Tunón

The spores from a puffball mushroom is released in a burst. Still during the early 20th century this was one way to attempt healing wounds. They were *puffed* over the wound and supposed to stop the bleeding and initiate the healing process.





One should never underestimate the influence from literature on local medicine. The headline reads "home cures" in a popular Swedish book with the purpose to reach housewives. These kinds of books were filled with good advices of all kinds.

#### 9) intention of the treatment

Why was a certain medicine used when the patient had a certain disease? Was it to cure the disease? To relieve the symptoms? Or encourage recovery?

#### 10) origin of information

Who has provided the information? From where did the informant get the information?

With access to answers to these questions there is a good opportunity also to get scientific and pharmacological answers concerning the actual efficacy of the cure. Some cures are effective while others are more symbolic, but without a proper set of background data you won't be able to make a correct judgement.

#### Traditional knowledge for future health

A large amount of information concerning traditional medicine has been archived in museums and archives and many books have been published about the sub-

ject. However, new information might be difficult to come across. Nowadays few people have their own experiences of traditional treatments, but there might be some prescriptions from local healers that have been kept until today.

It is, however, important to notice that in spite of the fact that the medicinal plant use during centuries has resulted in many medicinally important compounds, there might still be plants and cures that haven't been examined scientifically. It is estimated that around fifty per cent of all medicines in the pharmacies in the western world have a natural origin, i.e. a plant, a microbe or an animal. However, there might still be something to unveil among the medicinal plants that went out of fashion in the early 20<sup>th</sup> century and earlier. A study on local medicine might thus not only be of interest to historians and ethnologists, but also to chemists and physicians.



Photo: Håkan Tunön

In traditional medicine in Europe in general and in Sweden in particular the healers used not only their own preparations, but also ready made products from the pharmacy. Here is a collection of tinctures that have had a wide use as local cures within Swedish folk medicine.



## What happens to the material?

HÅKAN TUNÓN, NAPTEK, SWEDISH BIODIVERSITY CENTRE, UPPSALA

To document the cultural heritage of your surroundings, a great deal of work is needed, but it may result in a very valuable material. It is important that the results are made widely accessible, in order to increase the potential of learning from them. It may therefore be wise to discuss at an early stage the future storage of the material with museums and other local archivists.

In the preface of this book we say that we hope that the chapters will inspire people to initiate a search for their local traditions and local knowledge regarding the use of the landscape and its inhabitants. The theme of the book is to find different paths to traditional knowledge and to document how people use and have used biological resources and the landscape and how this knowledge can help us to find solutions for a more sustainable future.

This documentary work can be performed in the form of study circles, private tasks or in any other way; the most important matter is that the produced material should not end up in somebody's drawer. It should be made accessible also to others. The collected knowledge may have an impact in itself, but also as an inspiration to develop new trains of thought. It is therefore of utmost importance that it can be spread to others who may find use for it from their own frames of reference.

The reports and the original materials should of course firstly be filed locally if possible, but it is also important that copies can be kept at museums and archives at a county level and perhaps also at some national archives. Make sure to discuss these issues with representatives of different archivists already at an early stage to find out in what way they would appreciate the material the most.





*The Sooner the Better: cultural heritage as a resource for a sustainable future* [Ju förr desto bättre: Kulturarvet som resurs för en hållbar framtid] is an inspiration book for people who want to document local traditions and evaluate their potential to contribute to sustainable development. Our society has undergone great changes during the past century, but we will face even greater changes during the coming decades. The Western World has become dependent on cheap fossil fuel and our ecological footprint has a global impact. We have to change our production systems and greatly reduce our dependency on oil.

Is it possible that part of our needed future solutions can be found in traditional ways of living and in our cultural heritage? How did we produce what we needed before oil? How can we strengthen our understanding of the ecosystems where we live and our feeling and care for the place we call our home? We need to do something soon!

The sooner the better!

*Naptek – Swedish National Programme for Local and Traditional Knowledge related to Conservation and Sustainable Use of Biodiversity* – is a government initiative in response to the implementation on the UN Convention on Biological Diversity. It is situated at the Swedish Biodiversity Centre.

The *National Heritage Federation* (Sveriges Hembygdsförbund) is a national body representing the 26 regional heritage federations. The aim of these societies is to preserve and make available the popular culture of earlier ages as manifested in traditional festivities, the architectural heritage, crafts, costume and oral tradition.



CBM Swedish  
Biodiversity Centre



*Sveriges Hembygdsförbund*