THE NETTLE AS A CULTURE PLANT

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»'You are often of so distinguished a family that you dare not make it known', said the nettle; it had a kind of feeling that it might become nettle-cloth, if it were treated in the proper manner.» This utterance is found in one of Hans Andersen's tales, but there can hardly be many readers who understand the charm of the nettle's future prospects; for who knows what *nettle-cloth* is nowadays? In the 17th and 18th centuries, however, several authors occupy themselves with this commodity; and in a natural history book for children dating from 1791 we find the following explanation: »Nettle-cloth is made of stinging nettles. Yes, children, like hemp and flax, the large nettles supply us with fibres of which the finest nettle-cloth can be woven. But as far as I know, no more of it is made anywhere. It is too expensive, besides not wearing well. But here and there lace is said to be made of it still.»[1]

In a kind of textbook on agriculture which appeared in 1796, written by »a clergyman in Sealand for the use of village parsons and others living in the country»,[2] full instructions are given for the preparation of nettle stalks; it is said here that if they are treated like hemp, »experience will show that the fibres of the nettle are finer than those of common flax». This work was followed in 1802 by another textbook with the promising title »Magic for Women», a guide to practical housekeeping also dealing with the treatment of nettle fibres, but it does not take long to see that it draws its information on the subject from the above-mentioned book on agriculture.[3]

Finally, nettle-cloth was known to the poet Oehlenschlæger, who was fully aware that it was a luxury which could not be obtained without special effort. In his play »The Fishermen» he lets the old woman Marcebille say:

»Excuse me, my child, I am somewhat late.
In the daytime I have to earn my bread.
You know it is but thinly cut for me.
I pluck the nettles in the ditch.
What my wan withered fingers gather
Will later cover snow-white bosoms.
Alas — such are the ups and downs of life.»

It would seem, however, that women took more pleasure in wearing nettle-cloth than in gathering the nettles. In any case, this material acquired a tremendous vogue, creating a furore as well as causing scandal. But evidently it was for the most part imported from abroad — a circumstance which was not a little displeasing to the people who at the end of the 18th century had made self-supply their pet idea. In 1788 a competition was started for the best answer to the question: Is it useful or harmful to introduce a national dress? And one of the paragraphs in which the more precise nature of the task was stated, runs thus: »By establishing a special national dress, extending not only to the cut but more especially to the cloth of which it was to consist, the sale of the useful manufactures of the country would be increased, and a powerful means would be obtained of leading the national industry into channels of interest to the State. In the same degree as the sale of native products and manufactures would increase by such an arrangement, so would the sale of foreign manufactured goods and consequently also the preponderance of our imports be reduced.» No wonder, then, that the foreign luxury materials were subjected to a strong adverse criticism by the authors competing for the prize, and nettle-cloth, too, receives its due; but by their very zeal the honest writers happen to give us a good deal of information about nettle-cloth as well as about the use and nature of other fashionable materials.[4] First we learn that »Our wives and daughters have their wardrobes full of half a score of silk, print, or nettle-cloth garments of various colours and shades, few of which are ever worn out, not to mention gauzes of manifold names, nettle-cloths, linens . . .» then follows the alarming information that the luxury is by no means confined to the exterior, even the »deshabille of the ladies is almost as costly, of thin silk or expensive nettle-cloth, likewise trimmed with gauze or lace this refers to about three or four petticoats worn at the same time». For minor articles such as aprons or nightdresses, a lady's expenses would easily amount to half a score Rigsdaler a year, but that was not all: »The whole covering of the neck and breast is further fortified by an outwork of a big silk scarf, the price of which is from 2—10 Rigsdalers or more; or by one of Indian calico or nettle-cloth, called a shawl, which is much more expensive again.» It will be understood, then, that there is increasing concern, and that the author in the middle of it all interrupts himself and breathes a heartfelt sigh which not only reveals his misgivings regard the extravagant lady herself, but also includes her maid, who is forced to witness all this, »for this corrupts this girl's ideas of luxury, which are strung so high that later on she ruins her husband on that account and disseminates destructive principles in humbler circles».

The moral as well as the æsthetic point of view causes him many scruples. »A dress, in my opinion not pretty, is much worn lately, and is called chemise de jour. It is, thus fashion decrees, to be of thin, transparent nettle-cloth. It resembles any other chemise except that it has a belt wound round it and several bands round the sleeves.» Then he asks whether modesty can well be separated from womanly beauty; »and yet this dress has won much favour. Very well, but then let it above all not be of the transparent material, but at least (as it was preferred and mostly seen at first) over a flesh-coloured taffeta slip».[5]

But now the logical sense of our reformer is subjected to a rigid test. For it does not seem quite consistent when, after this, he objects to a change of fashion which requires a greater covering of the body; on the other hand, if only as a matter of principle, he must still reject nettle-cloth. He goes on to say: »Fashion has brought about a great many changes. According to its laws not only is the breast now no longer uncovered, but it is so madly covered and overlain not with gauze, which is out of fashion, but with loads of nettle-cloth and linen, that the outline is deformed to so exaggerated a caricature that this fashion, perhaps before this has left the press, may be expected to be replaced by another, which in the capital alone will make many hundreds of ells of nettle-cloth useless.»

Finally we get a eulogy of all the more solid kinds of material, and the death blow is given to all de luxe fabrics. »The untrimmed simple dress or jacket or skirt, which is neither distended over stays or cul de ouatte, is just as convenient for every household task as for the dance amid the gay throng . . . which, with a dress of gauze or of fine nettle-cloth, now especially becomes very expensive, since this clinging material seldom lasts out more than one or two dance-evenings. — In short: let silk give way as far as possible to cloth, stuff, or more solid cotton material; let gauze straightway be dismissed: . . . let nettle-cloth, at least the foreign kinds, which do not replace linen at about the same price, go as well.»

This wish, however, does not seem to have been fulfilled, at any rate not at once. Nettle-cloth gains ground even among the women of the middle classes, and it is mentioned among the goods which pedlars carried in their box of wares . . . »fine scarves of East Indian taffeta, long bolts of nettle-cloth for curtains lay together with baize and green woollen damask», we are told.[6] Evidently it was now used for all sorts of purposes. A household expert who in 1796 enumerates what a marriageable young girl should provide herself with for her trousseau, also mentions curtains of nettle-cloth. »For the living room three sets, besides menage or a flounce, double, and three widths for

each set, each half an ell long, of muslin or nettle-cloth; in all four rigsdalers and three marks.»[7] Among practical hints for housekeepers we also find instructions for the washing of nettle-cloth, an extremely elaborate process: The cloth is soaked in cold water for 24 hours. White soap is boiled well in water with $^1/_6$ part spirits, and the cloth is steeped in it when the mixture is lukewarm. A barrel open at both ends is covered at one end with thin laths and a cloth is spread over it. A brazier with cinders is filled with flowers of sulphur, the brazier is pushed under the barrel so that the smoke can rise through the cloth.

A Practical Handbook for peasants recommends nettle-cloth as a filter for the clearing of honey,[8] and in mills nettle-cloth is said to have been employed for sifting the flour. The name »mill-cloth», used down to our day for a very fine white material, perhaps originally meant nettle-cloth.

But while certain people were against importation, there were others who found it to their credit in more than one sense to bring good things into the country. In Vilhelm Helt's poem of 1759 the merchant says:

»But tell me, I say, where do you get these wares
Which are held by all so costly and rare,
Who brings us such stuff to the country hither,
From the hands of the Indian despite water, wind, and weather?
— — — — —
Where do we get nettle-cloth, scarlet and tobin,
Wall hangings, indigo, marten, sable, and ermine?
— — — — —
Through me and my trade; at my desk I sit
While all round the world my orders flit
— — — — —
And neither by the sword, force, murder or manslaughter
But by my bill and my business they are brought here.[9]

We will not here discuss the justification of the dispute; we all know it is still going on in principle. But it will be of a certain interest to find out where nettle-cloth actually came from. A book dating from 1780, on commercial science, says: The cotton industry at Mark is considerable. Here all sorts of cotton fabrics are made of calico, print, barchant, manchester, nankeen, nettle-cloth, and others. A great deal of lace is also made at Mark, embroideries both of gold and silver as well as in silk and nettle-cloth — but in Denmark and Sweden the Prussian manufactures are forbidden; and England, France, and Holland, as well as Saxony, have better goods than Mark can supply.»[10] So it was not from this place, then, that we imported the coveted mat-

terial, but it is mentioned both in 1723 and 1751 that nettle-cloth was manufactured at Leipzig,[11] so there are also other possibilities. And Meyer's Commercial Dictionary states that nettle-cloth was chiefly produced in Holland and France,[62] though the production mostly ceased upon the introduction of cotton, while other sources trace nettle-cloth to the East. The Chinese are accused of intermixing silk with nettle fibres,[12] and as early as 1723 the Dutch Company in India carried on an extensive trade in calicoes and nettle-cloths from Surrattee and Coromandel.[13] Perhaps these popular fabrics were in the market in Denmark almost as early.[63] Nettle-cloth is often mentioned in the oldest Danish newspapers, and, e. g., in »Adresse Contorets Efterretninger» from 1764, among other goods offered for sale at an auction we hear of: »Fine striped nettle-cloths . . . East Indian red — and — white striped gingham . . . colour, checked calico, fine white nettle-cloth scarves, nankeens». A publication dating from 1775 tells us of two European countries at war with each other: »During the war one of these nations carried on a considerable trade in Indian nettle-cloths, but no sooner had peace been concluded than it was given up, because some young gentlemen, upon their return home, declared that it was no longer in use among the enemy. The East India Company suffered more from this change of fashion than it had suffered from the entire war.»[14] These young gentlemen evidently did more towards giving the death blow to nettlecloth than the moralist did, with all his exhortations.

However, we have statements from several quarters that a great number of the fabrics sold under the name of nettle-cloth had nothing whatever to do with it; the name, it is said, had in the course of time been applied to imitations made of cotton or flax; and already at the close of the 18th century the designation is thought to be very misleading. It would, of course, be very difficult completely to clear up this question now, yet there is the possibility that the imported materials may have been manufactured from other species of nettles than those growing in our country. In this connection it may be mentioned that the Ethnographical Collection possesses an entire male costume and several articles of clothing made of nettle-linen woven by the Caingang Indians of South America.[15] It cannot, however, simply be taken for granted that the plant growing there is the very same as that we know here; and in the East, which thus seems to be the native place of most of the nettle-cloths imported into Europe, there grows a certain plant of the nettle family which is known from olden times as a spinning plant; fabrics woven of it might with some justice be called nettle-cloth. The name of this plant is *Boehmeria nivea,* commonly called *Chinagrass* or *Ramie,* the later being the Malay name. It may attain a height of 1—1½ m and has no stinging hairs; it is a perennial, and

in China, for instance, it can be reaped three or four times annually, which all seems to be a great advantage. There is, however, this drawback about it, that it is difficult to separate the bast from the wood in a rational way, a problem which the world industry at present seems to have difficulty in solving satisfactorily. From early times the Chinese have treated the stalks with lye of ashes and a soap solution, the secret of which process they tried as long as possible to keep from the Europeans. The utility of the plant for the making of textiles is supposed to have been known already in antiquity, and ramie fibres are said to have been found in the wrappings of mummies. Materials made of ramie may be very soft and flexible, finer than cambric and yet very strong. It is not known with certainty when it first appeared in Europe, but as far back as 1581 it is mentioned that the Dutch imported ramie partly as fibres and partly in the form of woven fabrics.[16]

From all this, one would perhaps be inclined to think that nettle-linen was actually best known as a faked fabric, or must at any rate be regarded as a foreign product in our cultural world. This is hardly the case, however, for European traditions pointing in the opposite direction can still be traced. In Germany, we learn, it was only in the 19th century that regular experiments with the cultivation of nettles were made. That this was done owing to an old tradition seems obvious, for the earliest known literary evidence of the stinging nettle as a textile plant is supposed to be derived from no other than a German investigator, Albertus Magnus, who flourished in the 13th century. He attributes properties to nettle-cloth which are lacking both in flax and hemp.[17]

From Eastern Europe it is likewise recorded from the beginning of the 19th century that several Russian peoples made not only fishing nets but also all kinds of garments of the prepared nettle. V. Hehn says in his book »Kulturpflanzen und Haustiere» (1874) that among the Bashkirs, Koibales, and Sagai Tartars the weavers make not only nets and sewing thread of Urtica dioeca but also a kind of linen textures called storck. These tribes live on the borders of Asia and Europe in a region where to this very day we can find cultural features which in an astonishing manner recall the Europe of ancient times. Of the Bashkirs it is further reported that »larger pieces of linen for clothes they mostly make themselves, also . . . spinning yarn from the common large nettle.» The nettle grows in the rich soil round the houses and is treated in the autumn like hemp, pulled, dried, and soaked. The bast can usually be treated by hand, by a kind of maceration; it is then freed from the wood, and is finally pounded in a wooden mortar. A dishonest trade device often occurring in Turkestan consists in interweaving nettle fibres with silk and selling the material for genuine damask.[18] It is also on record that the nettle was used

in Finland before actual agriculture was known there.[19] About the Vogulians and the Kamchatkans we are told at the close of the 18th century that they know no other linen for the necessary underwear than what they get from the nettle; and from Switzerland it is recorded, in 1796, about a parson's wife, Madame Schmid from St. Steffan in the Simme valley, that »she has gained much credit by making not only linens but also many other things from nettles. After drying and hackling she has treated them like cotton by carding and spinning them, and from this made knitted stockings both fine and strong, she has besides had a piece of cloth woven 45 ells long, in which flax thread was the warp and nettle thread the weft; and when she had further had it printed, from which it was seen that nettle yarn dyes well, it looked like the best calico.»[20] Among the common population of the Tyrol, nettle linen was in use as late as 1917, and right down to our own day it is said to have kept its position in home weaving from Silesia eastward.[21] And Lithuanian and Hungarian fairy tales, dealing with a princess who is to free her transformed brothers from enchantment by spinning nettle thread and weaving shirts of it, seem to point to old traditions.[22]

But let us return to Denmark, to Hans Andersen and his fairy tales. In »The Wild Swans» he makes the fairy say to Eliza: »Do you see this stinging nettle I am holding in my hand? Many of the same kind grow round the cave in which you sleep... those you must gather though they will burn your skin to blisters; break the nettles with your feet, and you will have flax; of this you must twine and weave eleven shirts of mail with long sleeves. Throw these over the wild swans, and the charm will be broken.»

It would seem natural to suppose that our poet had the idea of the nettle shirts from some folk-tale. Whether he could have known the foreign ones is not easy to say. But the idea does not seem to be derived from Danish folk-lore; at any rate, in the Danish folk-tales I have had an opportunity of seeing it was not by the spinning of nettles but by thistles, cottongrass, spiders' webs, and the like that the sister was to break the enchantment and set free her brothers. It must, of course, be admitted that a poet can, by his own imagination, create the combinations his poetry requires, but it seems to me that there may possibly have been another source of inspiration, which is worth mentioning. In his »Story of my Life» Andersen tells us that in his childhood he used to go every day to the pauper women's spinning rooms at Odense Hospital; there he heard much which his memory retained. It may further be mentioned that his mother's family was probably of rural descent, so through these channels he may very likely have been familiar with the ancient working methods in Fyen. The probability of this is increased by the circum-

stance that, as late as 1919, Christine Reimers, folklorist of Fyen, reports having heard in the northern plains of Fyen that nettle linen was once made there, though no person now living had taken part in the industry, having only heard old people talk about it.[23]

There is, however, more evidence that nettle-cloth used to be woven in Fyen. Of Mrs. Figadt, whose husband was surgeon to the Count of Brahetrolleborg (d. 1837), it is known that she used nettle-thread for sheets, and made materials of it that were »better than of flax yarn». In 1813 she made 21 ells of linen and just as many ells of ticking, and the year after, when she had a yield of two stones of nettle fibres, she got from this 12 pocket handkerchiefs, 18 ells of checked linen, and 12 ells of bed-ticking. To »The Patriotic Society of the Diocese of Fyen» she sent in samples both of nettle-linen and thread, as well as cow-hair calamanco and linsey-woolsey. For this achievement the industrious lady was rightly rewarded, the president sending her a »sincere acknowledgement» which concluded with the wish that »her shining example might arouse a noble power of emulation in many Danish women.»[24] It is not on record, however, that Mrs. Figadt had any successors in her work, but as late as 1917 a family at Odense owned a couple of nettle-linen sheets originating from St. Viby at Hindsholm. The grandmother of the owner had been given the linen by her mother, but had herself marked the sheets with names and the date 1827. As late as 1917 one of the sheets was still whole, and it has now been incorporated into the Collection of Textiles in the National Museum.

The museum has recently received another couple of examples of nettle-linen, though from quite another part of the country. It belonged to Anna Maria Beata Partsch, born in 1806, who lived in Adelby parish near Flensborg; and her granddaughter Mrs. Møller, wife of the district medical officer, who has presented the samples to the Museum, owns two well-preserved and very beautiful sheets of the same kind. The material is quite fine, something like shantung. It would probably be very difficult to decide where it was originally made; it is possible that we are here dealing with a product of the old nettle manufacture.

We may, however, still find faint traces of the nettle tradition in various parts of Denmark. An old man of eighty relates that he remembers from his childhood in East Jutland how his father made abundant use of stinging nettles, and the procedure was as follows. The nettles, which were to grow till they were dry, were pulled up, root and all. The root was cut off, and the leaves and seeds taken off and laid out to dry. The stalks were then gathered into bundles weighing about 20 pounds and put to dry, after which they were sent to Aarhus to be used for linen. The payment was 6 skilling a pound.

Another old man, aged eighty-five, from Eskilstrup in Sealand, remembers having heard his mother speak of nettle-linen. And he himself, when tending cattle in the woods as a boy, took fibres of dry nettle stalks to mend his whips.[25] If the boy knew that nettle fibres could be used for this purpose, it seems natural to suppose that originally it was the custom to plait entire whip lashes of them. That combination of work and play in intimate contact with nature which down through the ages has filled so great a part of a child's life in the country, must no doubt be regarded as a reliable transmitter of traditions; for it is obvious that the tools and toys required for work and play can only be made of the material at hand; thus a whistle and a whip are things which will be equally useful and amusing for a little shepherd boy, and nettle fibres and willow branches are the materials which it will come natural to him to use.

The idea of making use of nettle fibres has thus been preserved right down to our day and has, indeed, already been subjected to experiment in modern industry. It was the war of 1914—18 which furnished the occasion. As is well known, when war breaks out and paralyses the intercourse between the countries, necessity compels us to make the most of everything so as to make up, if possible, for the threatening shortage of goods. It was Mrs. Elna Fensmark who brought up the idea in 1917, and it caught on. The State granted 10 000 Kroner for experiments, a »nettle committee» was appointed to enquire into the matter, and a great number of experts contributed a considerable amount of work. The press gave the matter their best support, all the newspapers of the country glowed with enthusiasm, while scouts, the Boys' Voluntary Band and similar corps displayed great industry and a truly heroic courage in gathering the plants. In Rude Forest a short distance north of Copenhagen a »Rettery» was erected, and here the experiments took place. »Retting», i. e. rotting, is a process of fermentation by which the gum holding together the bast fibres and connecting them with the wood is destroyed. It soon turned out to be a very difficult process, inasmuch as the wrong bacterial cultures tended to develop; this caused an intolerable stench and reduced the durability of the fibres. At the Biotechnical Laboratory of the Royal Technical College an attempt was therefore made to produce pure cultures of the bacteria, and the experiments finally progressed so far that samples of thread, coarse materials, and string could be made; the possibility was also discussed of supplying the catastrophic deficiency of sheaving string. But just at that time the war ended, and the interest in nettles died away.

In Germany and Austria an immense impulse was given to the same cause during the last war, and somewhat greater results were obtained there,

materials and very beautiful fine yarns being actually manufactured. Here, however, manufacturers became gradually convinced that the process would be both too costly and too uncertain if it were to be dependent on the collection of wild nettles. These can only with difficulty be procured in sufficient quantity at the same time, and the linen will be of inferior quality if the nettles come to hand at a too varied degree of maturity. Rational cultivation therefore appeared to be the essential condition for the future prospects of the cause, and such cultivation experiments were made. Some of the results published in 1938 are briefly quoted here.[26] During the last war the fibre output of the wild nettle was 3 %, by cultivation in the field 4—5 %; now, by regular crossing a culture species has been raised which is said to be capable of giving about 13 % of fibrous matter. While the wild nettle when left to itself branches copiously and attains a height of at most $1^1/_2$ metres, the cultivated nettle grows less bushy and may become about 3 metres high — on the average $2^1/_2$ metres. The output per ha is estimated at 6—8 000 kg air-dried stalks, which will supply 750 to 1 000 kg fibrous matter, a result which, the author maintains, corresponds to the output of flax; but we gain the impression that there are certain difficulties in freeing the fibres from the shives. The procedure preferred by German industry at present is said to be the same as that used for ramie. But this method is said to be rather expensive; thus the economic problem not only involves the mode of cultivation but also the cheapening of the working.

However, the whole thing is as yet in the experimental stage, and the last word in the matter has hardly been said yet. A point worth noting in the very latest cultivation experiments is the question of the nature of the soil. It is admitted that the nettle is an exacting plant; it favours light and well-manured soil, though it has proved satisfied with more modest localities, since it thrives very well in low boggy soil. The latter fact might have been learned from the old Norse peasants. In his description of Sillejord parish Pastor Hans Wille gives the following account of the nettle. »Urtica urens, poison-nettle, and Urtica dioica, nettle, are used by all poor people for cabbage... Wiser are they who make very tolerable linen of it, called strie; they sow a piece of useless meadow with it, enclose it, and when this field is ripe, they treat it as other flax. Since this linen is very good and strong it would be desirable that the nettle, otherwise so despised, should be used for this purpose everywhere.»[27] In the latter half of the 18th century several Norwegian clergymen seem to have had the praiseworthy idea of giving a detailed description both of scenery and of popular customs in their districts; in this way part of the tradition about the nettle has fortunately been preserved. As early

as 1762 Hans Strøm says: Urtica foliis appositis cordatis, item urtica foliis oppositis ovalibus, are both common and known by the name of Brænd-Hætte or Brænde Nott, also nettle... Speaking of this herb I must point out as something remarkable that the inhabitants in the neighbouring bailiwick make coarse linens thereof, as of flax or tow, and sell the same to Søndmør where in this and several other items they are less economical.»[28] And in the description of the deaconry of Guldbrands Valley (1785), F. H. Hiorthøy says: »Nettle (Urtica) is by the peasants here called Brændhettor... According to Mr. Strøm's account the peasants in Nordenfiord in the diocese of Bergen utilise them in the same way as flax and make beautiful linen of them; but though I have lived for 14 years in the parish of Gloppen in Nordfiord deaconry this economical and praiseworthy use of the nettle has been unknown to me; but according to report I must say like Mr. Strøm that on the moors there are those who use the nettle for such purposes.»[29] That the nettle (nosle) was cultivated in Norway in earlier times is also evidenced by place-names such as *Nosleland* and *Naadland.* The conjecture has been put forward that the nettle was brought to Iceland by the Scandinavian settlers to be grown as a culture plant there — however, this matter is not quite clear.[30]

In Sweden nettle-cloth was no doubt just as important as a fashionable fabric as in our country.[64] In a new Swedish work on textiles, two very beautiful nettle-cloth dresses of recent date are illustrated, one assigned to the eighteen-forties, the other to about 1860; they belong to Nordiska Museet and Göteborg Museum respectively.[31] In an inventory from Fogdø church, we find amongst various other materials bought for bridal costumes in 1723, »nettle cloth for a collar».[32] It is much more difficult to gather information about the home-made nettle-cloth, but curiously enough, an old lady born in Blekinge in 1868, now living in Copenhagen, can relate that her mother treated nettle stalks in the same way as flax. She carded the fibres with wool, and of the mixture she knitted stockings, mittens and the like, which were very warm.[33] Information of an earlier date is gathered from the Proceedings of the Vetenskaps Akademi of 1761, where the low standard of agriculture is mentioned. »The thrifty diligence of the women can never be sufficiently praised. By weaving, spinning, and the knitting of stockings they try to make up for what is lacking on account of the poor farming. The knitting of stockings especially is carried on with great industry even by men in the winter evenings. Here are made linen, duck, and wadmal materials as beautiful as can be desired, by those who have scarcely had any other teacher than a natural ability. The inhabitants of Borås buy up all that can be produced. In this way the common people receive some support which, nevertheless, will not prove

enough when the seed and the flax are dear. Baroness Mariane Coyet of Domestorp has had fine flax thread made of nettles and had it prepared for spinning.» Elsewhere we are told that samples of thread had been supplied which had been spun of meliloti (melilot) stalks. The thread was rather fine and strong.[34]

Thus the nettle is not the only wild plant which will furnish serviceable spinning material. In fact, tradition has it that the fibres of certain culture plants such as cabbage stalks and hopbines[65] are suitable for the production of textiles. Perhaps many more plants than are generally supposed have formerly been used for spinning. It has often been seen that ancient customs have been transmitted through the ethnological tradition, and as for the poor peasants whose customs are reflected in the features described above, we gain the impression that they were not much better off than the ancients, who knew none of the advantages which civilisation has brought us in the period separating antiquity from the 17th century. So when we hear almost contemporaneously from several countries that the common people in remote regions knew the use of nettle fibres as late as the last couple of centuries, this is probably not due to an isolated idea of more recent date cropping up here and there; there must no doubt be ancient traditions behind it.

It seems first to have occurred to philologists, however, that the nettle might from olden times have been used for spinning. Etymologists believe that already in Indogermanic times nets have been made of nettle-thread, and concerning the linguistic derivation of the word nettle the Swedish philologist E. Tegnér says: »nässla, for nätla, nätzla and even näta, like nät, is formed of a derivate of the same primitive stem in the sense of twine, spin, which we meet in Latin neo, and which with some change of meaning recurs in German nähen. The women in the house who spun were the same as those who sewed; the transition in the sense was therefore natural. From the fibres of the nettle they sometimes, at a time when cotton had not yet come into use, derived material for their spinning» . . .[35] The fact that the word net (nat = to knot) has become the name for a piece of open textile work also suggests primitive working methods. Within the primitive textile art we know several very simple forms of net technique, which require very modest implements, and it is obvious that people in low phases of culture do not make their first attempts to produce textile fabrics by means of complicated apparatus. A twisting or winding together of suitable materials that happened to be available, for instance bast, the tendrils of plants, or straw and stalks which had been seen to possess a certain degree of suppleness and strength, would first be used. As a type, therefore, a net must be regarded as an earlier textile phenomenon

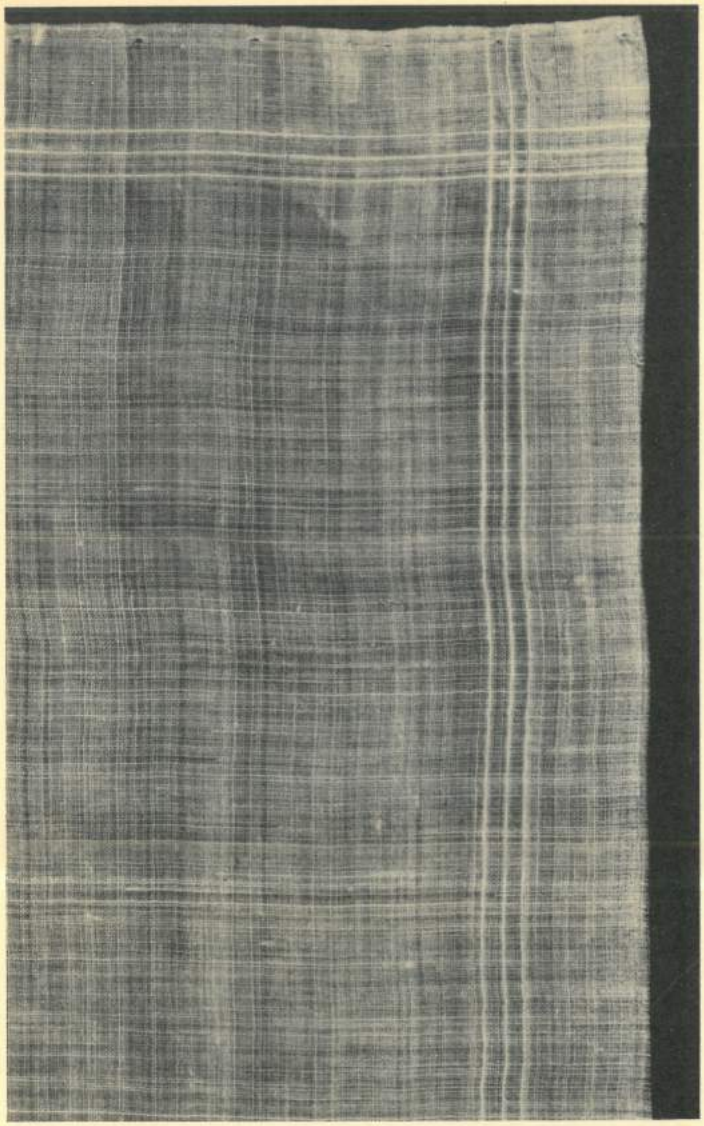
than a regular piece of material. As a matter of fact, several different net techniques occur in the textiles from the Swiss Stone Age finds; and the only piece of Danish textile we know from the Stone Age is just such a piece of a net made by a simple loop technique, the material according to E. Rostrup's determination being the bast of wood.

It is now time to turn our attention to the fabrics themselves. Unfortunately textiles made of plant fibres rarely occur in the finds from our antiquity, even from the later periods; they seem to be less resistant to destructive agencies than materials of animal origin. From the earlier Bronze Age we merely know fabrics of wool, and only in a find from a tomb in Voldtofte (Flemløse parish, district of Baag) do we meet with some inconsiderable fragments of a fine white material of a linen-like character. The find, which is assigned to the second period of the later Bronze Age (the 8th Bronze Age period of Sophus Müller), contains both Danish and imported objects; it was discovered by Frederick VII and came into the possession of the National Museum at two different periods, in 1862 and 1865, and unfortunately the information concerning the discovery is not very exhaustive.

When Professor Bille Gram some time ago analysed some textiles from the Iron Age for the Museum he also received a sample of the linen from Voldtofte for analysis and stated that it was pure flax.[36] Already in 1935, however, Professor Knud Jessen saw a specimen of the Voldtofte linen and expressed some doubt as to the tenability of this assertion, but the matter was not then more closely investigated. When, on gathering materials for this paper, I saw how often the nettle had been used as a textile plant under primitive conditions, I asked Professor Jessen whether the Botanical Museum would investigate the possibility of nettle fibres occurring in our linens from antiquity, especially in the Voldtofte linen, which is the oldest. With great kindness Professor Jessen at once started an investigation into the matter, commissioning Magister Mogens Køie with the work. Magister Køie's report is as follows: »The samples of thread submitted in 1941 (Mus. No. 26436) all proved to consist of pure nettle fibres. From Bille Gram's investigation two microscopic preparations were also received (Mus. Nos. 26436 and 20084). The material in these was likewise pure nettle fibre.»[66]

Since the Voldtofte find contained both Danish and foreign objects, it may perhaps with some justice be objected that the linens might be imported. I will not deny the possibility. Still, it seems to me improbable that material made of nettles should have been imported when nettles presumably abounded within the immediate vicinity. Nuts of Urtica dioeca have been found in Danish deposits from the period between late glacial and postglacial times.[37] To this

Afhandlinger, Tidsskr. f. Landbrug 1768.
Den økonomiske Raadgiverforening for Kongelige Fredensborg m. Kbh 1796
II Del S. 71.



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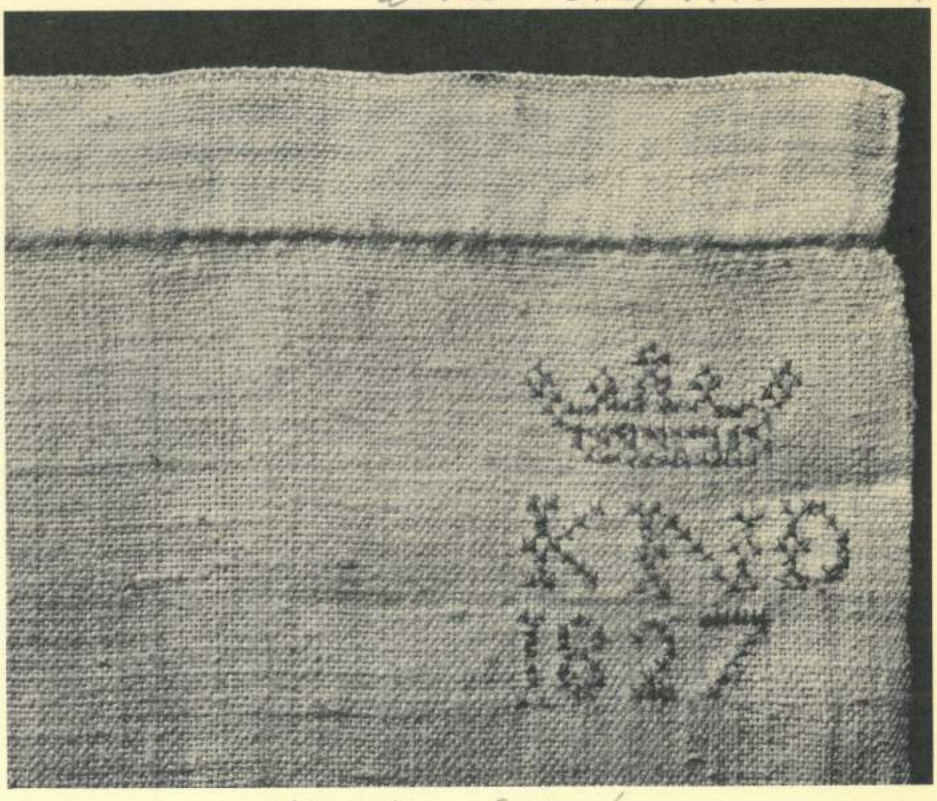


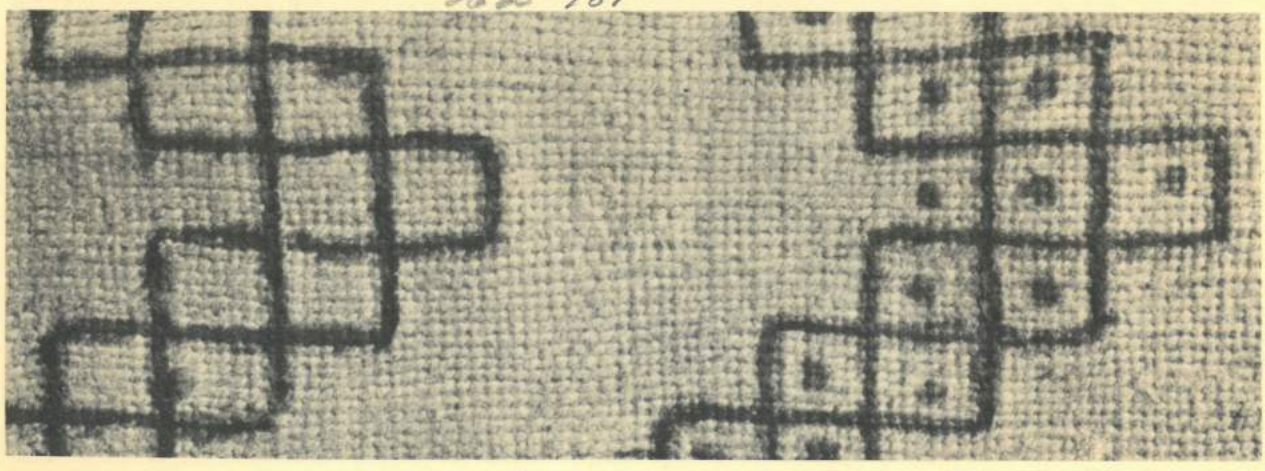
c

a. — Handkerchief of ramie. Brought home by the corvette Galatea in 1846. Ethnological Department of the National Museum, Copenhagen. Mus. No. B 3975.
b. — Female costume made of nettle-linen. Dansk Folkemuseum, Copenhagen. 342/1896
c. — Nettle-linen sheet from St. Viby, Fyn. Nationalmuseum, Copenhagen.

Plate 10

a

Hd 107 Hd 105, Hd 106 Hd 107
Hd 101



b

Hd 107

a

b

Plate 11

a. — Nettle-line. Dansk Folkemuseum, Copenhagen.

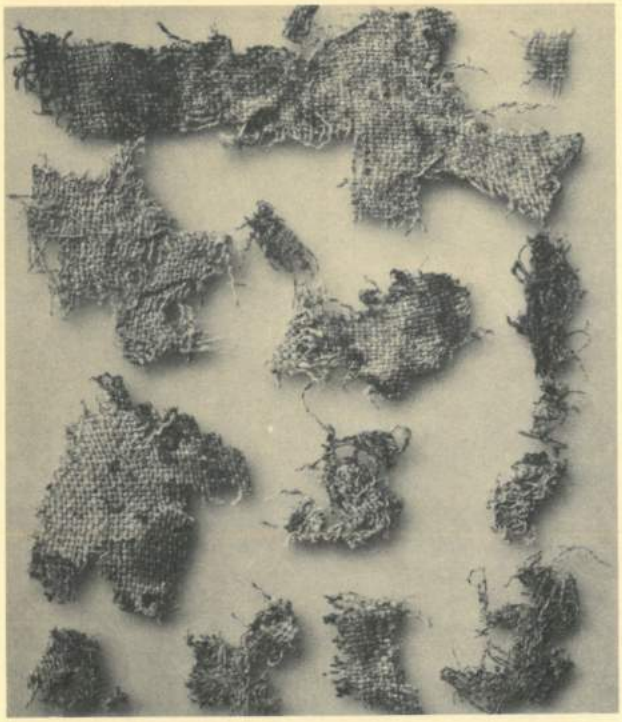
b. — Nettle-line from Adelby parish near Flensborg. National Museum, Copenhagen.

Plate 10

a. — Male costume made of nettle-linen woven by the Caingang Indians of South America. Ethnological Department of the National Museum, Copenhagen.

b. — Detail of Poncho from the picture above.

Plate 12



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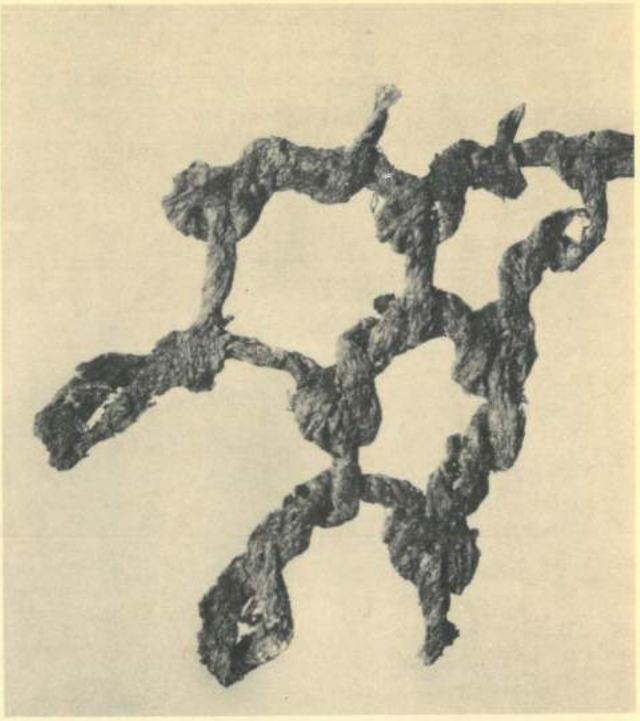

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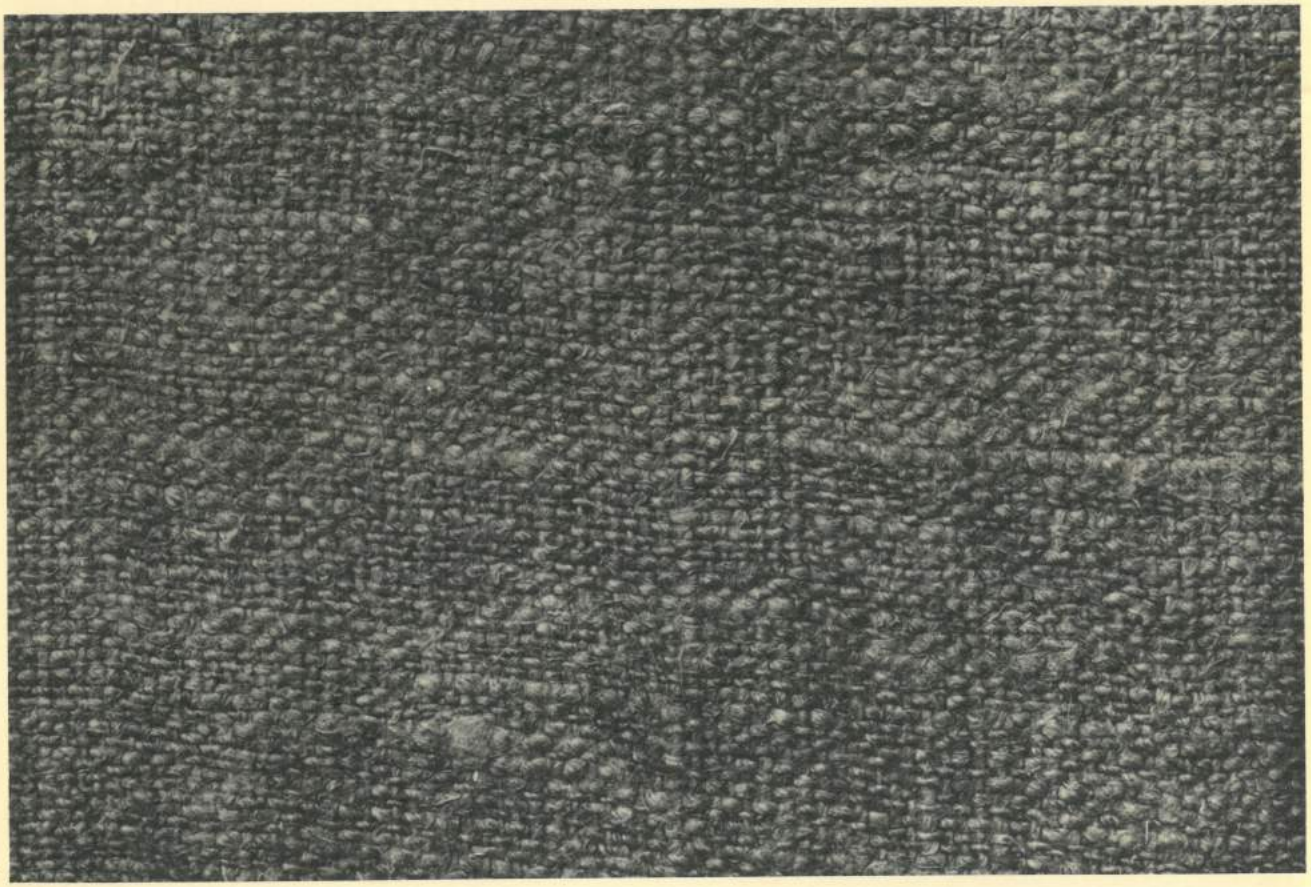

c

a. — Fragments of the nettle-linen from Voldtofte, Flemløse parish, assigned to the second period of the later Bronze Age. National Museum, Copenhagen.
b. — Fragment of a bast net from Ordrup, assigned to Stone Age. National Museum, Copenhagen.
c. — Sample of nettle-linen woven by Mrs Bjufström in the year of 1917, National Museum, Copenhagen.

must be added that in the Norwegian ship-find from Kvalsund, stalks of nettles occurred in considerable quantity.[38] This find is assigned to the earlier Iron Age, and is thus only a couple of centuries later than the Voldtofte find. Professor Knud Jessen, who in 1929 assisted the Norwegian botanists in their investigation, writes that the nettle-stalks give the impression of having been subjected to a rotting process, and the fact that they lay gathered together in a heap would also seem to suggest that they had been laid aside for a particular purpose, probably to be used for textiles. There are thus several grounds for supposing that the nettle-cloth from the Voldtofte tomb is a native product.

The Danish archæological finds have, however, yielded yet another object of interest, though it can only be regarded as indirect evidence. It is a piece of clay with an impression of a fine woven fabric found in Slotshøj at Stege and assigned to the later cairn age.[56] Since all our fabrics from the bronze age are very coarse and made of heavy, roughly spun woollen yarn, it has hitherto seemed rather strange that a piece of fabric from the stone age should be of a finer texture. However, investigators were persuaded that this might be the impression of a piece of flax fabric, for on a cow-horn fashioned like a bottle neck[57] found in a stone age settlement in the south of Fyen some organic matter was discovered which, according to Bille Gram's determination, was flax.[58] The dating of this object is, however, quite uncertain, for potsherds from the iron age were found in the same settlement.[59] And since, according to Professor Gudmund Hatt's investigations, flax has only been discovered in finds from the pre-Roman iron age,[60] some other vegetable substance must be assumed to have been used for spinning in the stone age. The idea then seems to me worth considering that the peoples of the stone age may have known the use of nettle fibres. That nettle fibres were used by very primitive peoples is at any rate beyond doubt. According to Gudmund Hatt,[61] Gilyaks and Ainos use nettle thread for sewing together their dogskin coats and other garments, even their footwear, and prepare the thread themselves. Other tribes use tendons or strips of fish-skin, and the Eskimos of Yukon employ a kind of tough grass which is dried, combed out, and used as sewing thread.

Even with this slender material there will now be reasonable grounds for supposing that vegetable substances were used in the infancy of the textile art. In the first stage, no doubt, only serviceable tendrils and stalks of wild plants in their natural condition were employed. The next phase in the development must consist in a kind of process of improvement, refinement, a treatment by which the bast or fibres are freed from the other elements. The third phase must be dependent on a certain advance in culture, for it will depend on a rational cultivation of specially suitable plants, which later on, by

Rasmus Mortensen: fra Vejle Oestergn
Vejle 1929, S. 235. — „Meeldugs-Forklæde.
S. 236: 3 Par Meeldugs-Manchetter —
2 Par Meeldugs kørge Manchetter —

adequate preparation, will yield a larger output of fibres and perhaps also a better quality than the wild plant can supply.

It is not only in the textile world, however, that the nettle has been of importance, it has also asserted itself in other domains, for instance as a food plant. The clergymen we mentioned above also give information on this subject from their Norwegian districts. Hans Wille says: »The nettle is used by all poor people as cabbage, and is eaten with avidity when other more tasty vegetables are neglected. They boil it whole, and have milk on it, and eat it that way.» And Hans Strøm from Søndmør says: »Nettle is used in the spring when it sprouts among other herbs as grass, cabbage, but is later considered poisonous, which is, indeed, confirmed by Linnæus.» As far as Sweden is concerned we must, of course, see what Linné has to say on this subject. We quote from Skånska Resa: »Nettles were here gathered for cabbage, as is usual in Sweden in the spring, as long as this nettle is tender and not yet finger-long, but when it grows larger it is neither eaten by human beings, cattle, goats, sheep, horses or swine, but only by some caterpillars. When this nettle is boiled as cabbage and eaten, you feel no medicinal effect from it nor diuretic power, though this is nevertheless appreciable if it is boiled and drunk after it is full-grown. Some add to this nettle cabbage of theirs leaves of field garlic or common or Spanish chervil, that the cabbage may acquire a more pleasant taste; others pick the leaves of goutweed... and several other plants at random, whereby it often happens that people who eat cabbage grow dizzy, for which reason I, for one, do not willingly eat cabbage in the spring, if I cannot first see for myself what plants have been gathered for this dish.»[39]

Nettle soup and nettle porridge are commonly eaten in Sweden to this day, and in the spring when the nettle is tender and fresh, it is offered for sale in the market-places of Swedish towns. Only the top shoot with two sets of leaves is used. Nettles can also be dried, preferably in a shady place, and preserved for later use. The leaves are then steeped in water some hours before being boiled. From the extract such excellent things may be made as a table drink, containing all the nutritive salts necessary for the body, an excellent vinegar, and just as excellent a kind of hair wash.[40]

Even though recipes for nettle soup may be found in the very latest Danish cookery books, we have not exactly the impression that the nettle enjoys great popularity as a food — plant in this country. It was therefore rather a surprise when, upon enquiry through the daily press, the Ethnological Department of the National Museum received a great number of communications, some from elderly people, praising the nettle as a tasty and wholesome food. Most of the correspondents know of nettles used as spinach or for nettle soup; some thought

that they could be mixed with cabbage; for instance after severe winters, when the cabbage has been damaged by frost, nettles are said to be an excellent substitute. The leaves of nettles may also be salted in the same way as beans, for use in the wintertime. Finally it is said that »nettle leaves are useful for boiling with meat which will not otherwise become tender owing to age». Two informants state that the nettle must be one of the nine kinds of greens which are to be put in Maunday Thursday's cabbage, and one of them further states that if this is done you are safe from sorcery all the rest of the year.[41, 67]

As forage the nettle has still the best reputation for horses as well as for pigs and poultry, and if, for instance, turkey chickens are a little delicate a first, a mixed feed of nettles and chopped eggs is the best means of securing them a good start in life. This is not only known among peasants; in »Practical Handbook for present and future Housewives» (Copenhagen 1849)[42] it is recommended that fowls be given an additional feed of buckwheat, hempseed, and chopped nettles mixed with burned and crushed bones; this will promote laying. And an Oeconomia dating from 1733 says: »Nettles chopped among wheat bran should be given the hens to eat, and they will lay many eggs: but the pullets should first be given nettle seed, which is just as good.» I have myself a very few years ago in Jutland seen an old woman gathering nettles from the hedge banks as fodder for her pig. Both from Scotland and from Halland (Sweden) we have the statement that the nettles given to pigs should be steeped first in boiling water, probably to weaken the effect of the stinging hairs,[43] an advantage probably also gained by the Danish recipe recommending that the nettle leaves should be dried a little and rubbed a little, so that they break; they can then be kept and mixed with the feed of the animals in the winter. The resemblance to the now so popular lucerne meal which has become a great item in agriculture inevitably suggests itself.

As a dye plant, too, the nettle has a certain value. The root without any additions yields a green colour, with the addition of coarse salt a dark green, with alum a yellow, and with vitriol an olive green shade.

Here and there fishermen are said to have used whole nettle plants for smoking fish.[44] They are further recommended as good for washing, since a lye can be made of nettle-ash, the effect of which is said to be due to the particularly high content of potash in the plant.[45] Finally, a fresh nettle is said to be good for cleaning bottles.

As a medicinal herb the nettle has enjoyed a great reputation from olden times; it was almost a panacea for the most different kinds of illness. Here we can only give some few examples from its extensive field of activity. In the first place it is considered an infallible cure for rheumatism, and the treat-

ment is as follows: You gather as many nettles as will entirely cover a bed, then you undress and lie down on the nettles. The more you are stung, the better the cure. The evil is said to come out with the blisters.[46] There are still old people alive who will declare that a brisk little turn of whipping with poisonous nettles cures rheumatism and myesthenia. A »Cyprianus» from Fyen gives the following remedy for chilliness: »Take nettle seed and boil it in wine and let it become cold. Then rub the whole body with it.[47]

According to Chr. Pedersen's »Medical Book» the nettle will cure the scab: »Take and pound poison nettles with a little salt and rub the scabby limbs with it, for they heal and kill the worm, taking its life.»[48] The same remedy, be it noted, will cure the bite of a mad dog just as it heals all »evil, foul, and baneful wounds... also disperses all knobs, bumps, and cold swellings». »Against the sudden outbreak of blisters are used nettle roots, crushed between stones, and applied.»[49] And in C. E. Mangor's »Country Pharmacy» we read: »The juice of tender young nettles is good in diseases of the lungs, 3 or 4 spoonfuls every morning with milk or water. You can also make a drink from small chopped nettle roots.»[50]

It is still well-known that the same remedy used for washing the hair gives a rich and beautiful growth of hair. Dried nettle leaves can be used alone or with the leaves of other wild plants for a »herb bag» which will warm and heal if you apply it to a diseased spot. And as late as 1940 an old woman told me that nettle-tea will cure tuberculosis. That a good many similar household remedies are still known among the populace appears with all plainness from the information received quite recently by the Ethnological Department of the National Museum. It is largely concerned with extractions of the various parts of the nettle: root, leaves or seed, which are either extracted with wine, alcohol, or gin, or boiled in water. In certain cases the fluid is boiled down with honey or sugar-candy, and the medicine is prescribed for the most diverse affections, from eczema to renal diseases and cough. It is no question, however, but that these remedies are variants of the advice from the old medical books, and when we learn that the famous wise woman at Vindblæs heals scrofulous sores with a salve of crushed nettles and common salt, and that the »stumpy smith» at Esrum who was not a little wise, either, could prevent the injurious effect of vipers' bites by a salve of nettles which he had crushed with his sledgehammer on the anvil, this can also clearly be referred to the above-cited sources.[08] Greater independence in learning must be attributed to the wise woman who could cure »Agt» (rheumatism?) in the head by blowing through a nettle stalk.

Sceptics who think that common people and wise women have overesti-

mated the value of the plant may be recommended to inform themselves of the opinion of science on the matter. Unfortunately I am not able to supply a modern Danish investigation on the real value of the nettle, but in his book »Välsignade Växter», the Swedish author Niels Hewe states that no wild plant exceeds the nettle in content of nutritive salts and vitamins; it contains 2.3 p.c. nutritive salts, distributed thus: potassium 32 p.c., sodium 3 p.c., lime 29 p.c., magnesium 7 p.c., iron 5 p.c., phosphorus 8 p.c., sulphus 8 p.c., silicum 4 p.c., and chlorine 4 p.c. In addition the nettle is a good source of vitamin A, a rich source of vitamin C, and also contains vitamin B, besides some licithin and small amounts of albumen, fat, carbohydrates, glucose, etc.

Scientific support is also given to the custom of eating the leaves of nettles as salad; in 1924 Professor Dobreff discovered a secretion in nettle leaves which is at least equal to that of spinach.[51]

And since there is so much that is true at the bottom of the confidence placed in the nettle down through the ages, it cannot really be wondered at that common belief has gone one step further and assigned to it both supernatural virtue and the power of predicting the future: If you beat yourself with a nettle you will be able to count from the number of blisters you get how many years are to pass before you enter into holy matrimony. If a girl plants a nettle in wet sand and it bends in the course of the night, it will show from what quarter her suitor will come. If its tip bends downwards the enquirer will soon die.[52] In Germany the nettle is said to be the symbol of miserable and hopeless love trouble.[53] If many nettles grow together this is thought to be a sign that innocent blood has been shed there. These nettles can never be eradicated; they will always grow up again and bear witness to the evil deed done. Others think that under such a colony of nettles there is an entrance to the dwelling of the elves, and that the nettle shows the lightning the way to it.[54]

In addition, the burns of the nettle are a protection against sorcery and the nettle prevents the milk from being bewitched by house trolls and witches; it prevents the cabbage from being eaten by butterfly larvae, and guards humans and animals against vermin.[54]

In Sealand the nettle has been associated with a strange superstition still prevalent a couple of ages ago. It was thought that a woman who was to give birth to a child could escape the birth pangs if she crept through a horse caul — the membrane surrounding the new-born foal. But then, on the other hand, a curse would befall the child; if a boy, he would become a werewolf, if a girl, she would be an incubus. If, however, some one could manage at the right moment to throw a nettle on the woman who would so presumptuously let her offspring suffer, she would be prevented from committing her evil deed.[55]

Even though the nettle has not gained favour by mild and insinuating ways, it has nevertheless asserted itself in a way which appeals to our sense of humour. For it cannot be denied that it has acquired a certain vogue in the popular wit. The Danish proverb that »a wise hen will also lay her eggs in nettles», seems everlasting and can be twisted and turned against any one who meets with a slight mishap of a comical kind.

To venture »to grasp the nettle» has become a metaphorical expression for showing the highest moral courage. And that intercourse with the ferocious plant requires some courage cannot be overlooked when a gentleman who one would think possessed a certain immunity has given rise to the following proverb: »'I know the weed', said the devil, he had been stung by nettles.» So when popular wit attributes the following playful saying to him: »Welcome in the greenwood», said the devil, as he seated his great-grandmother in the nettles», we must suppose that his wicked joy was born of his own experience.

[1] G. C. Raff, Naturhistorie for Børn, Copenhagen 1791. Simone Paulli, Flora Danica, Copenhagen 1648. »To conclude about these nettles I will here also remind you that of the stalks of the large nettles textures may be made, but it will never be so white as that made of flax. The black crepe worn on the hat when you are in mourning, is also made of the stalks of the nettles.»

[2] L. M. Wedel, Samlinger om Agerdyrkning og Landvæsen. Copenhagen 1792—96. H. 5 pp. 11—15.

[3] Magi for Fruentimmere. Copenhagen 1802. The nettles are collected at the end of August, as well as in September, according as the weather has been damp or dry. When you see the leaves beginning to droop and wither, the stalks turning yellow, and the seed falling out of the pods, the stalks are cut off with a sickle close to the root without damaging the root, which later on every year gives out more fresh stalks. The nettles thus gathered are now spread out in the open air, being left to dry for two days, that the leaves may easily be detached from the stalks. Then you shake them like hemp, tie them into bundles and let them lie for 6 or 7 days, more or less according to the nature of the weather, in running water.

After this shaking they must be allowed to become fairly dry, and lie in a dry place, so as to be handy when wanted for use. The rest of the work consists in the preparation of the long fibres, for which you use the same implements as for hemp, seeing that both plants are very like each other and yield a thread and linen of the same colour and thickness. The advantage of nettle linen is evident, since the plant itself neither needs care or manure, nor any special kind of soil, nor requires the least expense; nor is the farmer hindered in his work by it. The linen made of it will bleach not only whiter but also quicker than hemp linen. A kind of very fine calico may also be made of nettle thread, the chief thing being that the fibres are properly broken so that what is most woolly can be kept by itself.»

[4] C. Pram, Forsøg om Dragten især for Danmark og Norge, Copenhagen 1791, pp. 352, 299, 300, 344, 335, 375.

[5] The 3rd Department of the National Museum possesses a dress from the eighteen-twenties (No. 139 W 6 a) of a thin white fabric lined with yellowish satin exactly as described by C. Pram. The dress (No. 342/1896, plate 9 b) which is assigned to c. 1820 is of a fairly close, fine fabric closely identical with a sample of nettle-cloth found in the Museum. Dress No. 286/1928 W 8n plate 11 a) is of similar material which likewise corresponds to a sample of nettle-cloth owned by the Museum. It is dated at 1816 and thought to have been a wedding dress. The fabric of these dresses is termed mull or gauze in the Museum Catalogue. Their resemblance to the nettle-cloth sample is, however, very marked, and it is uncertain whether

Prøve af Kjole W 8 h $\frac{42 c}{1923}$ er blevet undersøgt af Magnus Koie, som udtaler: Prøven er ifølge Sammenligning fremstillet af Ramie (Boehmeria nivea), lin eller anden almindelig anvendt Vævetrævler kan ikke kendes med sikkerhed.

the name mull was given to them when they were registered. It is true that muslin or mull is the name of a light white fabric which seems originally to have come from India, but curiously enough the word does not occur in a Danish commercial dictionary from the beginning of the 19th century.

[6] Rist, Soldater p. 78. Copenhagen 1796.

[7] Den erfarne Raadgiverinde, p. 73. Copenhagen 1796.

[8] H. Hansen, Haandbog for Landmanden, p. 242. Kolding 1852.

[9] Vilh. Helt, Curieuse poetiske Skrifter. Copenhagen 1759, p. 80.

[10] Ludovici, Forsøg til et fuldstændigt Kiøbmandssystem. 3. D. I. B., pp. 302—303, 309.

[11] F. Tobler, Deutsche Faserpflanzen und Pflanzenfasern, Berlin 1938, pp. 77—84.

[12] H. I. Hannover, Tekstilindustri I, Copenhagen 1924, p. 124—128.

[13] Ludovoci, loc. cit. 3. D. II B, I H.

[14] Sneedorffs samtlige Skrifter, Copenhagen 1775, p. 164.

[15] Male costume consisting of short skirt, sleeveless jacket, and mantle. (Mus. No. Hd. 101, 106, 105.) In addition, the Ethnographical Collection possesses four other articles of clothing made of nettle-cloth from the same locality: H.d. 107, 107, 102; H. c. 235. I am indebted to Dr. Kaj Birket-Smith for calling my attention to the costume, Mus. No. H. D. 105.

[16] H. I. Hannover, Tekstilindustri I, pp. 124—127.

[17] Hjalmar Falck, Altwestnordische Kleideskunde p. 78. Kristiania 1919, and other publications.

[18] V. Hehn, Kulturpflanzen und Haustiere, p. 511. Berlin 1874. This pounding process seems rather strange, but it agrees very well with information from other quarters to the effect that the nettle-stalks must be crushed at the nodes, or the fibres will break in that place.

[19] P. v. Möller, Strödda utkast rörande jordbrukets historia, Stockholm, 1881, p. 181.

[20] L. M. Wedel, loc. cit. p. 13. From equal parts of nettle and hop fibres, very strong sacks may be made.

[21] Michael Haberlandt und Arthur Haberlandt, Die Völker Europas, Stuttgart 1928, p. 518.

[22] According to Johannes Bolte and Georg Polivka, Anmerkungen zu den Kinder- und Hausmärchen der Brüder Grimm, B. I., Leipzig 1913, Ungarn-Mailand Nr. 5. Die zwölf gekrönten Schwäne und ihre Nesselhemden spinnende Schwesterchen. C. Jurckshat, Litauische Märchen. Hemden aus Brennenesseln. It does not seem to be by chance that the nettle motive occurs in E. European fairy tales, since the tradition of nettle spinning has been preserved among W. Russian tribes. My thanks are due to Mr. Ellekilde, archivist, for indicating to me the literature referred to.

[23] Christine Reimers, Nordfynsk Bondeliv i Mands Minde, p. 678. Copenhagen 1919. Aftenposten 8/12 1918.

[24] N. Bech, Fyns Stifts patriotiske Selskab gennem 100 Aar. Odense 1910, p. 51.

[25] The Ethnological Investigation of the National Museum.

[26] F. Tobler, loc. cit. pp. 77—84.

[27] Hans I. Wille, Beskrivelse over Sillejord Præstegield. Copenhagen 1786, p. 130.

[28] Hans Strøm, Physisk og economisk Beskrivelse over Søndmør. Sorø 1762, p. 137.

[29] Hjorthøy, Physisk og oekonomisk Beskrivelse over Guldbransdalens Provstie. Copenhagen 1785, p. 94.

[30] P. v. Møller, Strödda Utkast rörande Landbrukets Historia. Stockholm 1881, p. 181.

[31] Marita Lindgren-Fridell, Textilier efter 1800. "Textil" II, p. 408. Stockholm 1940.

[32] Anders Billow, Fogdø Kyrkas Brudskrud. Fataburen 1917, p. 57.

[33] The Ethnological Investigation of the National Museum.

[34] Vetenskapsakademiens Handlingar för 1761, pp. 275 and 321. Stockholm.

[35] E. Tegnér, Plister, p. 449. Svenska Studier tillägnade Gustav Cederschiöld. 1914.
Hellquist, Svensk Etymologisk Ordbok. Lund 1933—34.
L. Sütterlin, Etymologische Allerlei. Indogermanische Forschungen 1894, p. 92.

[36] Case of 2/5 1896 in the Archives of the National Museum. Mus. Nos. 26436 and 20084. Both samples consisted exclusively of flax.

[37] Knud Jessen og Jens Lind, Det danske Markukrudt Historie, p. 444. Copenhagen 1922.

[38] Knud Jessen, Nelden i Kvalund-Fundet. Bergens Museums Aarsskrifter. Ny Række. Bind II Nr. 2. 1929.

[39] C. V. Linnés, Skånska Resa. 1749, p. 11.

[40] Niels Hewe, Välsignade Växter. Stockholm 1939, pp. 218—21.

[41] The Ethnological Investigation of the National Museum. 1942.

[42] Haandbog for værende og vordende Husmødre. Copenhagen 1849, p. 295.

[43] P. V. Møller, loc. cit. p. 182.

[44] I. W. Hornemann, Forsøg til en dansk oekonomisk Plantelære, p. 843.

[45] Christine Reimers, loc. cit. p. 62.

[46] Ribe Stifts Tidende 21/6 1940.

[47] En gammel fyensk Lægebog eller Cyprianus v. Kai Ulldal. Odense Amts Aarb. 1916.

[48] Christiern Pedersens Lægebog 1533 v. Poul Houberg.

[49] I. N. Wilse, Physisk, oeconomisk og statistisk Beskrivelse over Spydeberg Præstegield. Christiania 1779.

[50] C. E. Mangors Land-Apotek ved C. Tode, p. 108.

[51] Niels Hewe, loc. cit. pp. 218—19.

[52] Ugens Nyheder 8/7 1932.

[53] Der grosse Brockhaus, B. 13, p. 181.

[54] Ugens Nyheder 87 1932 and Dansk Folkemindesamling. Isted Sogn 1939. Card No. 3345.

[55] The Ethnological Investigation of the National Museum 1942.

[56] 2000—1800 B. C. according to Johs. Brønsted's chronology.

[57] Mus. No. A. 28154.

[58] Nordiske Fortidsminder II pp. 293—94. Aarb. f. nord. Oldkyndighed og Historie 1913, p. 277. Sophus Müller, Stenalderens Kunst. Copenhagen 1913, p. 26.

[59] Communicated by Dr. phil. H. C. Broholm.

[60] Gudmund Hatt, Landbrug i Danmarks Oldtid. Copenhagen 1937, p. 33. Aarb. f. nord Oldkyndighed og Historie 1938.

[61] Gudmund Hatt, Arktiske Skinddragter i Eurasien og Amerika. Copenhagen 1914, p. 43.

[62] Stina Rodenstam, Om lin och nässlor som spånadsämne i Jämtland. Jämten. 1917, p. 26. The authoress quotes an article by Retlow v. Walter stating that formerly contractors for rope to the French navy were required to mix at least 25 % of nettle fibres in the material for it to be accepted as perfectly durable.

[63] The Royal Guild Regulations for 1730. Article 293 says: »Linendrapers alone may deal in all sorts of linen, cambric and calico, also all kind of gauze, lace, and knottings of thread, all manner of tapes and thread, and everything that can be made of flax, hemp, or nettle thread, and can have nothing to do with silk or woollen goods; it shall not be forbidden however, from now on as formerly, to sell publicly in the market-places, on market-days, a good deal of linen which is made in this country.»

[64] The enthusiasm for nettle-cloth does not seem to have been less in Sweden than in Denmark. Stina Rodenstam writes in the above-mentioned publication, p. 25, that in a sumptuary law in force from 1719 to 1730 servants', soldiers' and boatswains' wives were forbidden under menace of punishment to wear nettle-cloth.

[65] Magi for Fruentimmere, Copenhagen 1802 gives the following instructions for the preparation of hop-bines: »In the autumn you take the hop-bines, cut them into pieces three ells long, and macerate them either in water or on the roofs where steam or smoke passes up from within, or else in snow. When they have lain the whole winter they are dried well, and the tendrils are swung like flax and can then be hackled, breaking not being necessary. Hop-bines will be best macerated if you lay them for some nights in the dew and then in running water; they are dried in the air, threshed, broken and otherwise treated like flax. The linens woven from them will be much more durable than those made of flax or hemp.» Stina Rodenstam in the same work p. 25 quoted a statement by C. F. Hoffberg, physician to the king, 1792, that stuffs may be made of hop-bines.

[66] Mogens Køie will give a detailed account of his investigations in »Aarbøger for nordisk Oldkyndighed, 1943.

[67] Simone Paulli, l. c. p. 378. »Whereas Galen testifies that in the old days, if required by

necessity, food was made from nettles, and Pliny teaches that if they are eaten while they are tender in the spring, they are deemed capable of driving away and ridding one of diseases the whole year round. Then it may well be believed that the habit has come into use that old women and other poor people still every year prepare themselves cabbage of the small thin and tender nettles as well as of the small leaves of cabbage, young parsley, and young chervel ...»

[68] Both in the Flora Danica (1648) and in the Arnamagnæam Manuscript No. 187 which contains a Danish Medical Book from the middle or the close of the 14th century, some of the same advice will be found.

georg Wilhem Stellers:
Beschreibung von dem Lande
Kamtschatka dessen Einwohnern
deren Sitten, Nahmen, Lebensart...
Frankfurt u. Leipzig
1774
S. 83

Le Bjørnhals S. 84