

THE COMMON THREAD

NEW APPROACHES IN ARCHAEOLOGY

VOLUME 3

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The Common Thread

Collected Essays in Honour of Eva Andersson Strand

Edited by

ULLA MANNERING,
MARIE-LOUISE NOSCH, AND
ANNE DREWSSEN

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Preface

This book has a dual purpose. On the one hand it is a tribute to a dear colleague, Professor Eva Andersson Strand, from the University of Copenhagen (UCPH) in Denmark, and on the other hand a showcase for the enormous potential of textile research. The initiative for this book was taken in 2022 by the three editors, Professor Marie-Louise Nosch, Research Professor Ulla Mannering and Anne Drewsen MA and independent researcher, and we thank Rosie Bonté, the publishing manager from Brepols for her enthusiasm in publishing the volume.

To help in the initial process and recruitment of contributors, an advisory board was constituted, consisting of: Professor Cécile Michel, CNRS Paris (Assyriology), Professor Marianne Vedeler, University of Oslo (Viking Age and Early Medieval Archaeology), Dr Christina Margariti, Directorate of Conservation, Hellenic Ministry of Culture (Conservation), Dr Chiara Spinazzi-Lucchesi, University of Copenhagen (Near Eastern and Egyptian Studies), Associate Professor Elsa Yvanez, University of Copenhagen (Nubian and Egyptian textiles), social anthropologist and independent researcher Tove Engelhardt Mathiassen, Denmark (Modern Textiles), Dr Magdalena Öhrman, University of Wales, Trinity St David (Classical Philology and Roman Textiles), Associate Professor (retired) Mary Harlow (Ancient Roman Textiles) and Associate

Professor Emerita Ulla Lund Hansen (Danish Iron Age Archaeology).

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Copenhagen, September 2024

Anne Drewsen, Ulla Mannering & Marie-Louise Nosch

12. Spinning Fates and the Fate of Spinning

Towards a Nordic Textile Technical Terminology

▼ **ABSTRACT** In the 1930s, two *grandes dames* of textile research, Agnes Geijer and Margrethe Hald, engaged in a discourse, both private and public, on the correct terms for spinning directions at a time when little or no consensus existed on the matter either in the industry or in academics. The debate is the first evidence of contact between the two scholars, who would go on to become close colleagues and friends — and co-editors of the common Nordic textile vocabulary *Nordisk Textilteknisk Terminologi* (NTT) alongside Marta Hoffmann and Elisabeth Strömberg. This article revisits this debate that took place at a seminal point in the development of textile technical terminology based on published and unpublished material. The article will show how the two scholars each argued from positions shaped by their unique backgrounds, how the industry and academic terms evolved simultaneously and affected each other as well as the later NTT publications, and how their positions were ultimately joined together by later vocabularies.

▼ **KEYWORDS** terminology, Nordisk Tekstilteknisk Terminologi, vocabulary, spinning directions

Textile pioneers Margrethe Hald (1897–1982) and Agnes Geijer (1898–1989) are scholars well-known to textile researchers in the Nordic countries and beyond. They each left their mark on the discipline, and they were the editors of *Nordisk Textilteknisk Terminologi* (NTT) together with Elisabeth Strömberg and Marta Hoffmann (Strömberg and others 1967; 1974; 1979). This seminal vocabulary of Nordic textile technical terms was the culmination of a thirty-year process

of discussion, friendship, and international research, and has since served as inspiration for many later vocabularies of several languages (Burnham 1980). While working on the research project *Margrethe Hald: The Life and Work of a Textile Pioneer – New Insights and Perspectives* at the Centre for Textile Research (CTR) in 2020–2022, we discovered that Hald and Geijer's work on textile terminological matters predated the foundation of *Centre International d'Étude des Textiles*

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Stockholm den 5 april 1938

Kära Fröken Hald

Förlåt att det dröjt så länge med mitt svar! Jag har varit så hårt prässad av korrekturläsning den sista tiden att jag icke hunnit något utöver det alldeles oundgängliga. Nu har jag ett litet andrum och skyndar basta ned dessa rader för att det inte ska dröja en evighet. För det första väven: Det exempel Ni frågar efter såg jag i Berlin hos ingenjör *Kurt Hentschel*. Det var en hel liten modellvävstol (som han fått av en "rana" eller "grenne", av exakt samma slag som H. v. Walters från Nordsnorge där den gjorts av en "inföding", torff publice)

Jag hade på teoretisk väg kommit till, att de borde kunna göras så, och blev därför glad när jag av en slump fick mitt antagande belagt med faktum. H.v.W. nämner inte om denna möjlighet men har muntligen förklarat att hon inga invändningar har däremot.

Sätt Eder i förbindelse med den mycket sympatiske Hentschel, textilingeniör, mycket bevärdad i skandinavisk textilkonst, adr. Wildpark-West, Potsdam 4, Berlin, svensk-norsktalande.

Beträffande snöningsriktningen måste jag säga att Edert inlägg för mig inte innebär något nytt. Jag tror nog att man kan uppmobilisera många företrädare för den ut min synvinkel "bakvända" uppfattningen. Ofrånkomligt är dock att det är en retsam förvirring som blivit så vansklig just därför att vederbörande inte har vetat att de varit tvetydiga utan ansett som självklart att deras uppfattning är den enda möjliga. Så Hougen vis-à-vis Dede-*(betr. serum!)* kam och så även Rosenberg vis-à-vis v. Waltertörff. Jag tror (det är indu- strien kontra hemslöjden, men vill ej påstå det bestämt. Emeller- tid är även industrien inkonsekvent: en tråd varsvridning för ögat är densamma kallas olika om den är gjord av olika material!!! Dessutom lär engelmännen ha speciell beteckning. De skandinaviska

Agnes Geijer
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Figure 12.1. First page of Agnes Geijer's letter to Margrethe Hald, 1938 in the National Museum of Denmark (see bibliography: Unpublished Sources). (Photo by authors.)

d.v.s. så att
omdöme blir
ontant täkter.
javel! då
är en vord
bleekung
i fungerar
ett (v!))

författare som man måste beteckna som de främsta textila auk-
toriteterna på vårt område, Dedekam, Sylwan (Svenska ryor) och
v. Waltertörff har haft en enhetlig uppfattning, för vilken
min uppsats i Svenska museer ger uttryck, men börjar ~~våra~~ grac
man nu att vrida åt andra hållet hamnar man lätt i kaos om man
inte väljer någon helt ny beteckning. Jag vill inte påstå att
den nya tyska är idealisk) -- den är faktiskt svår att lära sig. x
-- men nog är den otvetydig. Det är därför jag inte vågat även-
tyra exaktheten med att införa den i min bok som kommer ut om
några dagar utan lämnat en bild med deklaration, i likhet med
vad Ni gjort. Då kan det inte bli misstag i den boken, men det
är onekligen lite tungrott i små uppsatser att alltid behöva
hänvisa till ett arbete med bild i. Allt det ~~är~~ är icke skrivet
för att omvända Er, det tycker jag vore katastrofalt, Er rikt-
ning är nu ordentligt fastslagen. Lika litet som ~~det~~ min anmärk-
ning i denna fråga var riktad mot Er utan mot den i detta avse-
ende intet (ont) anande men f.ö. innerligt förträfflige Hougén.
Farväl för denna gång och på återseende

Er tillgivna

Agnes Geijer

P.S.

Jag är inte säker på att jag någonsin
säger kommer att beakta Er - inte för
att få "rätt" (intet uttryck är "rätt", det enda
som betyder något är Klarheten, otvetydigheten)
men det duger i varje fall. På Hantverks-
museet i. Anteckning. Vårmen på trädskinn!

Figure 12.2. Second page of Agnes Geijer's letter to Margrethe Hald, 1938 in the National Museum of Denmark (see bibliography: Unpublished Sources). (Photo by authors.)

Anciens (CIETA) by almost two decades: their work influences our vocabulary to this day.¹

Anne Kjellberg (2015) has previously written about the correspondence between Marta Hoffmann and Agnes Geijer in relation to their work on the major *NTT* revisions in 1974 and 1979. At that point, Elisabeth Strömberg had passed away and Margrethe Hald withdrew from most of the editorial work as she was otherwise engaged, though she remained an informant on the Danish terms as well as a sparring partner for the two remaining original editors: Hoffmann and Geijer. In this light, it is unsurprising that hardly any correspondence regarding *NTT* was found in the Danish National Archives or the National Museum of Denmark during the Margrethe Hald project 2020–2022. There was, however, much correspondence between the three editors on other matters, professional as well as personal (Lervad and Grymer-Hansen 2022).

The discourse on the terms for spinning directions is covered in a number of writings by Hald and Geijer in the second half of the 1930s. In 1935, Margrethe Hald and curator H. C. Broholm published the monumental work ‘Danske Bronzealders Dragter’ on Bronze Age dress (Broholm and Hald 1935; trans. 1940). In 1936, Geijer published a brief overview of Swedish textile terms. In 1937, Broholm and Hald (1935) was reviewed and discussed by Agnes Geijer (1937) in *Fornvännen* alongside two other books on the same subject by Björn Hougen (1935) and Karl Schlabow (1937). The following year, Hald (1938) published a response and Geijer (1938b) published her large work on the textile finds from Birka. Finally, Broholm and Hald (1939) published their book on the textiles from the Bronze Age grave at Skrydstrup. Parallel to this public discourse on the subject, Hald and Geijer also corresponded privately on the matter as evidenced by a letter from Geijer to Hald now in the archive of the National Museum of Denmark’s Department of Danish Prehistory, dated Stockholm 5 April 1938. It is evidently a response to a previous letter from Hald to Geijer probably written around the time Hald published her response to Geijer’s review as this publication is referred to in the letter. Hald’s side of the correspondence is missing, and nothing further has been discovered in the Danish National Archives. Geijer (1938a) begins her letter with an apology for having taken so long, as she had been busy editing:

Nu har jeg ett litet andrum och skynder kasta ned
dessa rader för att det inte ska dröja en evighet.

(Now I have some breathing room and hurry
to write down these lines, so that it will not
take an eternity.)

The letter consists of two pages, which are heavily annotated by both Hald and Geijer, and the latter has added a long *post scriptum* as well as explanatory notes and several corrections, emphasizing that the letter has been somewhat ‘thrown together’ in between other obligations (see Figs 12.1 and 12.2). That discussion, when taken as a whole, illustrates the importance of establishing a term not just for spinning directions but the importance of terminology within the textile field.

Spinning and Spinning Directions

It will be necessary to present some terms and their meanings regarding spinning. The process of spinning is probably known to most while the technicalities of the production technique may be less known. In brief, spinning is an umbrella term for the processes through which yarn is produced from textile fibres. In the modern textile industry, there may not even be fibres but rather a liquid mass, which is made into yarn. A yarn is generally understood to be spun in one of two ways, so-called S and Z-spun. These terms are, as we will show, fairly new and stem from the textile industry rather than preindustrial textile production but they have become the predominant terms used within academia, crafts, and the industry.

In the 1940s and 1950s, a Danish institution by the name of ‘Terminologicalcentralen’ began publishing a number of ‘messages’ regarding standardization of terms within a number of industries. In the 1950s their Committee for Textile Terminology began sending out and revising suggestions for Danish terminology within the textile industry (Sonne and others 2022).² These messages represent the consensus within the Danish industry when CIETA was founded and prior to the publication of *NTT* and is the earliest example of a comprehensive textile technical terminology in Denmark. In these messages, Terminologicalcentralen (1954) defines S and Z-spun thread or yarn in the following manner:

Garn er S-spundet, når skruelinien for fibrene ses
som skråstregen i bogstavet S

(Yarn is S-spun, when the helix of the fibres is
seen as the diagonal line in the letter S)

¹ Margrethe Hald: *The Life and Work of a Textile Pioneer – New Insights and Perspectives* was conducted by Eva Andersson Strand as PI with Ulrikka Mokdad and Morten Grymer-Hansen as collaborators alongside an advisory board consisting of Ulla Lund Hansen, Susanne Lervad, Ulla Mannering, and Anne Drewsen.

² These messages have been digitized by the authors in collaboration with historian Mathilde Sonne and form the basis of the online textile glossary available at traditionaltextilecraft.com (Sonne and others 2022).

Garn er Z-spundet, når skruelinien for fibrene ses som skråstregen i bogstavet Z

(Yarn is Z-spun when the helix of the fibres is seen as the diagonal line in the letter Z)

These terms did not exist prior to the twentieth century and there seems to have been little to no consensus regarding the terms used in their stead. In Scandinavia at least, the terms right-spun (S-spun) and left-spun (Z-spun) seem to have been common as signifying spinning directions. S and Z-spun are, however, terms for the finished product, the yarn, while right and left-spun were terms for both the product and the process through which the yarn is made. It is this change in terms, as well as how and why it occurred, that we hope to shed some light on through the lens of two of the greatest Nordic textile researchers of the twentieth century.

How to Represent the Concept of S- and Z-Spun Threads in the *NTT*/CIETA Vocabularies

Whenever the fibre is transformed to thread through spinning, you have two ways to spin the threads — two directions to spin: clockwise and anticlockwise. In the *NTT* vocabularies (Strömberg and others 1967, 60), the terms S-spunnet and S-tvinnat in the same entry are defined as:

Om garn spunnet eller tvinnat medsols. De snedlinjer snodden framkallar ha, om garnet hålles vertikalt, samma rikning som stapeln i bokstaven S. Jvf. Z-spunnet, Z-tvinnat

(Regarding yarn spun or twisted clockwise. When the yarn is held vertically the twist produces lines in the same direction as the diagonal lines in the letter S. See Z-spun, Z-twist.)

The parallel terms in other languages than Swedish are:

Danish	S-spundet, S-tvundet
Norwegian	S-spunnet, S-tvunnet
English	S spun, S twist
German	S-gedreht, S-gedreh

It is thus only the German term that reflects the characteristics of the concept's way of turning — ('dreje' in Danish) and this term 'venstre-drejet', is often used in the Danish context — because the textile industry has many textile engineers trained in Germany and the contact between the two countries and the specialized language of textiles is important. In the (Strömberg and

others) 1974 and 1979 editions of *NTT* these definitions are maintained and the add-ons are only the terms in Finnish and the Icelandic terms:

Finnish	S-kierteinen
Icelandic	s-spunnid, s-tvinnad, s-brinnad

Margrethe Hald, who was in charge of the *NTT* 1967 edition with Agnes Geijer, argued for the retention of the terms right and left-spun in the Danish textile vocabulary and the correspondence between Geijer/Hald showed this vivid discussion over many years (see the next section of this chapter). The other term: 'Z-spunnet, Z-tvinnat' in *NTT* 1974 has almost the same definition in the *NTT* 1967 version: 'Om garn spunnet eller tvinnat motsols. Hålles garnet vertikalt, ha de nedlenjer som framkallats av snodden samma rikning som stapeln i bogstaven Z. Jfr S-spunnet, S-tvinnat' (Regarding yarn spun or twun anticlockwise. When held vertically the diagonal lines created by the twist is in the same direction as the line in the letter Z. see S-spun, S-twun) (Strömberg and others 1967, 75). It is often shown with drawings (Burnham 1980) as a continued tradition of the CIETA vocabularies. Here the definition in English is as follows: 'When the twist of a thread around its axis follows the direction of the central bar of the letter S, the thread is said to be S-twist, S-spun, pr S-ply. cf. Z-twist, twist, twistless' (Burnham 1980, 75). And the multilingual and parallel terms according to Burnham (1980, 136) are:

S-twist:	
French	torsion S
German	S-gedreht, S-Drehung
Portuguese	torcao S
Swedish	S-spunnet, S-tvinnat

Z-twist is likewise a look-up term and the definition is here: 'When the twist of a thread around its axis follows the direction of the central bar of the letter Z, the thread is said to be Z-twisted, Z-spun, or Z-ply. c. S-TWIST, TWIST, TWISTLESS' (Burnham 1980, 192)

The multilingual vocabularies (see CIETA.FR/ vocabularies) open up more transparency in the terminology and help the understanding of the concepts by cross-references, parallel terms, and definitions in the different languages (Swedish, English, German, Portuguese, Spanish and Italian).

A Discourse on Spinning Directions

In her review of Broholm and Hald (1935), Geijer (1937) wrote very favourably of the work, but in the very last paragraph she discussed the terms for spinning directions used by Broholm and Hald, Hougen (1935),

and Schlabow (1937). Geijer (1937, 253) noticed that Broholm and Hald as well as the Norwegian Hougen used the terms right-spun (högerspinning) and left-spun (vänsterspinning) and commented: 'I båda dessa publikationer användes en mot anmälarens och svensk terminology f. ö. Motsatt beteckning; i den danska gör detta mindre, eftersom det i en schematisk bild klart säges ifrån vad man menar' (Both of these publications use a term in opposition to the reviewer and Swedish terminology as a whole; this is less of a problem for the Danish, as a schematic picture clearly illustrates what is meant.)³ Instead, Geijer preferred the terms S-spun and Z-spun, which, according to her, were clearer terms already in use in German literature. Geijer (1937, 253) also noted that Hougen (1935, 82, n. 2) and Hans Dedekam used the terms right-spun and left-spun differently at different times, as the terms were sometimes used with the opposite meaning. She used this to illustrate the lack of consensus not just between the Nordic languages but also within the individual languages, in this case Norwegian. Furthermore, Geijer (1936) referred to an overview of Swedish textile terminology, she had published the previous year. This publication, however, uses the main terms right and left-spun, and the S and Z-spun terms are only briefly mentioned as new, clearer alternative terms. It therefore seems unreasonable to suggest, as Geijer (1937, 253) does, that any true preference or consensus for the 'German' terms existed in Swedish scholarship at the time. Especially since Geijer (1938b) continued to use the terms right and left-spun in her publication on the textile finds from Birka, when it was published the following year. In this publication, Geijer (1938b, 13, n. 3) explained: 'In der letzten Zeit wurde eine Bezeichnung eingeführt, die von der Übereinstimmung des fertiggedrehten Fadens mit den Diagonallinien der Buchstaben S und Z abgeleitet wird ... Ich bedaure, dass ich dieses praktische Bezeichnungssystem nicht früher kannte.' (Lately a new term has been introduced, which is derived from the similarity between the finished thread and the diagonal lines of the letters S and Z ... I regret that I did not know this practical designation system previously.)

Despite the otherwise positive review, Hald (1938) found it necessary to write a response to Geijer regarding the terms for spinning directions and thus engaged in her first public debate. Perhaps empowered by her recent study trip to Berlin in the late summer of 1937, Hald (1938, 278) rejected the notion that the terms S-spun and Z-spun were generally accepted in German literature, referencing a recent work by Emil

Vogt (1937).⁴ She argued that no consensus existed in Swedish or elsewhere in the Scandinavian languages. Instead, Hald (1938, 276) declared the necessity for clear definitions in every dissertation:

Hverken i den arkæologiske eller i den tekniske Litteratur er Betegnelserne for Garn og Spinderetning standardiseret; og naar der ikke i hver Afhandling udførligt forklares, hvad Meningen er med det Udtryk, Forfatteren har Valgt, kan der opstaa Misforstaaelser.

(There are no standardized terms for yarn or spinning directions either in the archaeological or in the technical literature; and there may be misunderstandings when the meaning of the term chosen by the author is not stated clearly in every dissertation.)

An argument used by both Geijer and Hald was to reference the terms used by the textile industry. It is evident that they both tried to strengthen the argument for their preferred terms in this way, but in the end, they actually showed the utter lack of consensus on the subject, as they were both able to supply examples. This is also remarkable, as they were not describing modern practices but preindustrial textile production (which later became the subtitle for *NTI* as well). Geijer's solution to the lack of consensus was simply prescriptive: to choose the least unambiguous term (S and Z-spun, according to Geijer) as the standard, while Hald argued for a plurality of terms with a clear definition supported by nonverbal elements. In her letter to Hald, Geijer (1938a) expressed sympathy for Hald's position but also the problems it entailed:

Jag vill inte påstå att den nya tyska är idealisk — den är faktiskt svår att lära sig — men nog är den otvetydig. Det är därför jag inte vågat äventyra exaktheten med att införa den i min bok som kommer ut om några dagar utan lämnat en bild med deklaration, i likhet med vad Ni gjort. Då kan det inte bli misstag i den boken, men det är onek[t]ligen lite tungrott i små uppsatser att alltid behöva hänvisa till ett arbete med bild i.

(I will not claim that the new German is ideal — it is actually difficult to learn — but at least it is unambiguous. It is for this reason I have chosen not to risk the precision by implementing it in my

3 Schlabow (1937) does not mention spinning directions at all in his book, so whether or not he agreed with Geijer is unclear.

4 Regarding Hald's stay in Berlin, see Fluck and Grymer-Hansen 2023; Mokdad and Grymer-Hansen 2022.

book⁵ which will be out in a couple of days but left an illustration with a definition, similar to what you did. Then there can be no misunderstandings in that book but it is undeniably a little difficult in small publications to always have to refer to a publication with an illustration.)

Geijer (1938a) echoes this statement in her post scriptum:

intet uttryck är 'rett', det enda som betyder något är klarheten, otvetydigheten.

(no expression is 'right', the only thing that matters is the clarity, the unambiguousness.)

Here, perhaps, we get a glimpse of Geijer's perception of the purpose for the terminology — to be clear, exact, and unambiguous. It mattered less whether the term was logical or easy to grasp. It is, however, interesting that Geijer, despite arguing for the use of S and Z-spun, choose not to use them in her publication of the textile finds from Birka (Geijer 1938b) and in her letter even calling the terms 'difficult'. The difficulty probably referring to the process of unlearning the 'old' terms and the shift in conceptualization, as mentioned, from process to product.

In her letter, Geijer refers Hald to a German textile engineer by the name of Kurt Hentschel, who was chief engineer at the German Textile Standardization Committee under the German Institute for Standardization Registered Association (DIN). DIN was founded in 1917 and in 1925, Germany had become the first country in the world to develop common norms for the textile industry (Textil-Normung 13 April 1938, 747–48). The same institution made S and Z-spinning the standard terms for the industry in 1936, which seems to have instigated Geijer's interest in the terms.⁶ Hentschel published *Wolle spinnen mit Herz und Hand* in 1949 (Hentschel 1975), where he mentions that right and left-spun were previously used in German as well but have been replaced by S and Z-spun. He had close ties to the Scandinavian countries, especially Sweden, where he had previously worked together with the textile researcher Vivi Sylwan (1935), but his direct involvement in establishing S and Z-spun as the primary terms is yet to be proven.

No consensus was reached by Geijer and Hald in the 1930s but changes certainly began happening around them. In her next publication, Hald continued

to use the terms right and left-spun but with a caveat in a footnote that she had been notified by a Danish textile factory that the international cotton committee had elected to use the terms S and Z-spun at their conference in Paris in 1937 (Broholm and Hald 1939, 7).⁷ It is evident that Hald's preferred terms lost ground in an industry context throughout the 1930s and 1940s. Hald still used the designations in her doctoral thesis in 1950; however by the time of its translation in 1980 she had capitulated completely and used the terms S and Z-spun (Hald 1950; 1980). Within a generation the new industry terms had thus outperformed the historical terms used by craftspeople for centuries.

CIETA and NTT

In 1954, a group of likeminded textile scholars founded the Centre International d'Etude des Textiles Anciens (CIETA) at the Musée Historique des Tissus (MHT), and the founding members came from Austria (Dora Heinz), France (Yolande Amic, Jacques Dupont, Félix Guicherd, Robert de Micheaux, Marie-Thérèse and Charles Picard, Monique Toury, Pierre Verlet), Germany (Ernst Kühnel, Sigrid Müller-Christensen, Wolfgang Fritz Volbach), Italy (Gian Piero Bognetti, Tito Broggi), Spain (Felipa Nino y Mas), Switzerland (Alfred Bühler, Verena Trudel), Sweden (Agnes Geijer) and the United States (Claire and René Batigne, Calvin Hathaway, Margaret I. J. Rowe, Edith A. Standen). They had all lived through the Second World War, and between some of their countries, enmity and distrust had prevailed for centuries. But they decided to make a fresh start for their generation, overcome old prejudices, and contribute to a better understanding in their field. Their goal was to establish a precisely defined language in which to describe the technical elements and structures of woven textiles, and to set up a documentation of historical textiles which should be described according to a detailed list of questions. This documentation, a collection of 'dossiers de recensement' for individual textiles, is preserved in the Musée des Tissus in Lyon where researchers can consult it.

Developing vocabularies of textile terms with their definitions and their equivalents in different languages took years. The first French and Italian vocabularies were published in 1959, the Spanish followed in 1963, the English in 1964, the Scandinavian in 1967, the German in 1971 and the Portuguese in 1976. Russian and Japanese vocabularies were established even later. But more and more researchers learnt to analyse woven textiles

⁵ Geijer was preparing Birka III for publication at the time (Geijer 1938b).

⁶ The reference is given as 'Deutsche Normen, Mai 1936' (Geijer 1938b) but we have been unable to locate the original document so far.

⁷ See Day (1938) for a summary of the decisions made at the conference.

according to the methods developed in Lyon. From 1956 onward Technical Courses were held regularly in Lyon and introduced generations of scholars to the tools, structures, and processes of silk weaving. To this day, these courses are at the core of CIETA's activities.

Agnes Geijer was the only Nordic representative among the founding members.⁸ Geijer quickly engaged Elisabeth Strömberg from the Röhsska museet in Gothenburg to write a draft for a Swedish vocabulary of textile technical terms and sent it to scholars in the Scandinavian countries for them to add definitions and parallel terms in their own languages. In 1954, Geijer and Strömberg summoned Scandinavian Scholars who worked with textiles and linguistics to a meeting regarding a collaboration in writing a common terminology for the Nordic languages. The representatives from Denmark were Margrethe Hald, by then PhD in Archaeology and curator at the National Museum of Denmark, and Poul Andersen, a linguist and Professor of Dialectology at the University of Copenhagen. As shown in this article and in Lervad and Grymer-Hansen (2022), Agnes Geijer had been working on creating a consensus on the terminology in Swedish and the Scandinavian languages for c. 20 years before she called the meeting — and Margrethe Hald had been a part of the discussion since at least 1938.

The English vocabulary was continued by Dorothy Burnham (1980) after her husband's passing. With regards to the ambition of CIETA, Burnham (1980, ix) wrote: 'Many members of CIETA are accomplished linguists and as the headquarters of CIETA was in Lyon, one of the great silk-weaving centres of the world, vocabularies quite naturally concentrated on terms for the description of silk weaving'. Illustrations of the concepts and multilingual terms had not yet been included but this was an addition first found in Burnham (1980): this important feature was included in the following CIETA vocabularies by illustrating the vocabulary with diagrams and photos of the tools, weaves, and fabrics, which has since become the standard. It is evident, however, that Burnham regarded her work a continuation of *NTT* as much as a development on the English vocabulary, as she continues:

A significant development in this experiment of international cooperation came in 1974 when a team of Scandinavian members gave the version of their vocabulary commercial publication and thus made it available to everyone rather than to the limited CIETA membership. This publication, *Nordisk Textilteknisk*

Terminologi (Oslo: Johan Grundt Tanum Forlag, 1974) covers words needed in the study of textiles in Scandinavian countries, specialized weaves, and terms used to process linen and wool, as well as the definitions in the earlier CIETA vocabularies. *Warp and Weft – A Textile Terminology* follows in the spirit of the Scandinavian publication.

Despite the confusion of Scandinavian and Nordic vocabulary, in the quoted passage, the introduction of the long-lived wool and linen tradition in the Nordic countries, as well as the addition of the Nordic languages Swedish and Finnish, are significant aspects of the 1974 edition.

In Sweden the publications of *NTT* in 1974 and 1979 formed the basis for the work of Tekniska Terminologicentralen and SIS Textilordlista – Glossary of Textiles, TNC 76/SS 251015 from 1981 with Swedish definitions and terms in Swedish, Finnish, Danish, Norwegian, English, German, and French. Spinning is here defined as:

förfarande att bilda garn genom att stapelfibrer ordnas till en fibersträng som ges erforderlig sammanhållning, vanligen med hjälp av snodd. (Tilverkningstekniskt avses med benämningen spinning vanligen endast slutstadiet i garnframställningsprocessen).

(The process of forming yarn by arranging staple fibers into a fiber strand which is given the necessary cohesion, usually by means of twisting. (In manufacturing terms, the term spinning usually only refers to the final stage in the yarn production process))

The definition is supported by the multilingual entry in *Textilordlista* (Svenska Textilforskningsinstitut and others 1981, 156):

E	spinning
F	filature f
D	Spinnen n
DK	spinding
No	spinning
Fi	kehruu

You can find this *Textilordlista* included in *Rikstermbanken* today with other glossaries from other subject fields and you can thus make cross-disciplinary searches for instance on fibres (Insitutet för språk och folkminnen 2022).

The Spinning Fates and the Fate of Spinning: Why Is This Important?

Legend teaches us that there is a magic to women, divinity to threes, and destiny to textiles. As the

⁸ Sigrid Müller (1904–1994), née Christensen, another founding member, was Danish by birth but lived and worked in Germany following her marriage in 1934.

Moirai spun the thread of fate for the Greeks, so did the Parcae for the Romans, and the Norns for the Vikings. In the twentieth century three women began spinning the thread of Nordic textile research, Margrethe Hald, Agnes Geijer, and Marta Hoffmann, and in the new millennium Eva Andersson Strand, Ulla Mannering, and Marie-Louise Bech Nosch picked up the thread as the Norns of our day, when they established the Centre for Textile Research in 2005. How oddly fitting that Hald and Geijer got to know each other through a discussion on spinning — and they could not have imagined where their work would take us.

The globalization of the world in the post-war period highlighted the necessity of common vocabularies for cooperation across countries for industry and academia alike. In Denmark, Terminologicentralen published the first attempts at a common terminology for the textile industry in the 1950s, and in 1954, CIETA was established in Lyon as a worldwide organization and began work on establishing common terminologies for historical textile terms with parallel terms in numerous

languages. One of the first terminologies published was *NTT* in 1967 with Hald, Geijer, and Hoffmann as editors. This became the blueprint for the following terminologies and was, as this article has shown, a culmination of almost thirty years of collaboration and discussion between Nordic textile researchers.

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Eva Andersson Strand has through her scholarship and innovative spirit continued this legacy in her own way while reinventing it for the twenty-first century. She has provided modern textile research with a heightened focus on not just textile craft but also of the craftspeople of the past by combining classic methods from humanities with new technologies such as using motion capture caps to measure the brain activity of spinners and weavers. We are grateful to have been part of the team at CTR under Eva's leadership and we are eager to follow her next steps, as the spindle keeps turning.

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