MEDDELANDEN FRÅN SVENSKT VISARKIV. 21

## A METHOD OF Cataloguing Vocal folk music

A Description of the System Used at the Svenskt Visarkiv

By

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SVENSKT VISARKIV · STOCKHOLM

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## A Description of the System Used at the Svenskt Visarkiv<sup>1</sup>

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A perennial problem in folk music research is that of cataloguing tunes in a satisfactory way. Various methods have been tried ever since the end of the nineteenth century, and it has proved more or less impossible to work out a universally applicable system: each individual kind of melodic material requires its own special solution to the problem. Methods used for cataloguing vocal folk music in other countries have been tried out at the Svenskt Visarkiv (The Swedish Centre for Folksong Research, Stockholm), but it has been found that none of them lends itself altogether to the particular tasks in hand.<sup>2</sup> It therefore became necessary to work out a new system, especially suited to Scandinavian and more particularly Swedish folksong tunes. The tunes were to be arranged according to the most objective method possible; moreover, even though certain special problems in connection with the song texts were to receive due consideration, purely musical criteria were to form the basis of the system.

One of the chief requirements borne in mind when formulating the system was that it should facilitate the collection of variants. Thus

<sup>&</sup>lt;sup>1</sup> The authors would like to thank Professor Otto Andersson, Professor Ingmar Bengtsson and Bengt R. Jonsson, F. L., director of the Svenskt Visarkiv, for valuable suggestions.

<sup>&</sup>lt;sup>2</sup> For a summary of certain cataloguing systems, particularly those worked out in Scandinavia, see E. Dal's exhaustive account in Nordisk folkeviseforskning siden 1800, Khvn 1956, pages 389–398, English summary pages 428–429.

it became necessary to find an essential and relatively unfluctuating element in the melodic form, which would make it possible to catalogue tunes belonging to one and the same melodic type in one and the same place, not withstanding differences due to the fact that a popular folk song had been included in many singers' repertoires. A number of experiments have shown that one such relatively unfluctuating element in the tune is the tonal material's relationship seen quantitatively.<sup>1</sup> Fluctuations in the number of notes and their duration can of course occur when the tune is sung to different stanzas; however, these are seldom such as to disturb noticeably the notes' proportional distribution among the various pitch levels. Especially important is the fact that this distribution is not altered even when the tune is varied in the course of many performances, except when the alterations are very far reaching, i.e. occur at a very late stage in the process. Experiments have shown that the scale step or steps which take up a quantitively large proportion of the length of the tune characterize to a great extent the folk tune's melodic form. A scale step which takes up more than a quarter (25 %) of the total time taken to sing the tune is found to be an important scale step for the tune in question. A scale step which accounts for less than a twentieth (5 %) of the tune's length and which does not occur at important points is accounted for in most cases by sporadic passing notes or other ornaments and is of less constitutive importance for the tune. Scale steps accounting for 15-20 % of the length of the tune are taken as being of intermediate importance. A tune containing a scale step which accounts for 30 % or more of its total length is usually of a special type: quasi-recitative, characterized by formulæ, or constructed of continually repeated triadic figures.

In order to illustrate the quantitative importance of the individual scale steps, various note values are used as symbols for the percentage of time which that scale step takes up within the tune as a whole. A

<sup>&</sup>lt;sup>1</sup> For Swedish tunes this is demonstrated in J. Ling: L. Chr. Wiedes vissamling. En studie i 1800-talets folkliga vissång. With an English summary. Uppsala 1965. (Studia Musicologica Upsaliensia VIII).

TABLE

	2.5 %	7.5 %	12.5 %	17.5 %	22.5 %	27.5 %	32.5 %	37.5 %
					0			
			_			1	C 12-14	-
30		1.5	3	4.5	6	7.5	9	10.5
32		1.6	3.2	4.8	6.4	8	9.6	11.2
36		1.8	3.6	5.4	7.2	9	10.8	11.6
38		1.9	3.8	5.7	7.6	9.5	11.4	13.3
40		2	4	6	8	10	12	14
42		2.1	4.2	6.3	8.4	10.5	12.6	14.7
44		2.2	4.4	6.6	8.8	II	13.2	15.4
48		2.4	4.8	7.2	9.6	12	14.4	16.8
52		2.6	5.2	7.8	10.4	13	15.6	18.2
54		2.7	5.4	8.1	10.8	13.5	16.2	18.9
56		2.8	5.6	8.4	11.2	14	16.8	19.6
60		3	6	9	12	15	18	21
64		3.2	6.4	9.6	12.8	16	19.2	22.4
66		3.3	6.6	9.9	13.2	16.5	19.8	23.1
68		3.4	6.8	10.2	13.6	17	20.4	23.8
70		3.5	7	10.5	14	17.5	21	24.5
72		3.6	7.2	10.8	14.4	18	21.6	25.2
80		4	8	12	16	20	24	28
84		4.2	8.4	12.6	16.8	21	25.2	29.4
88		4.4	8.8	13.2	17.6	22	26.4	30.8
92		4.6	9.2	13.8	18.4	23	27.6	32
96		4.8	9.6	14.4	19.2	24	28.8	33.6
104		5.2	10.4	15.6	20.8	26	31.2	36.4
112		5.6	11.2	16.8	22.4	28	33.6	39.2
120		6	12	18	24	30	36	42
124		6.2	12.4	18.6	24.8	31	37.2	43.4
128		6.4	12.8	19.2	25.6	32	38.4	44.8
140		7	14	21	28	35	42	49

crotchet represents an average length (i.e. is used for scale steps which take up 15-20 % of the length of the tune).

A scale step accounting for 35 % or more is written as two breves HR

- A scale step accounting for 30-35 % is written as a breve 岸
- A scale step accounting for 25-30 % is written as a semibreve o
- A scale step accounting for 20-25 % is written as a minim d
- A scale step accounting for 15-20 % is written as a crotchet

A scale step accounting for 10-15 % is written as a quaver hA scale step accounting for 5-10 % is written as a semiquaver h

A scale step accounting for less than 5 % is written as a demisemiquaver  $\beta$ 

Any scale step which takes up at least 15 % cf the length cf a tune must be regarded as important from a quantitative point of view. Such steps are called *prominent steps*.

The procedure used in ascertaining the percentage of time taken up by notes of various pitch is as follows. The length of the tune in quavers is calculated. Ex. I for instance consists of 6 bars of 8 quavers each, making 48 quavers altogether. The note e' occurs for a total duration of one and a half quavers. In the table (p. 105) of approximate percentages and duration symbols, plotted for various lengths of tune, this note is written as a demisemiquaver. The note f' is responsible for 4 of the tune's 48 quavers and is therefore to be written as a semiquaver. Duration symbols for the other notes which occur in the tune are calculated in the same way. The final note is designated with a pause sign and the material scale is as follows: Ex. I Gångarpilten (Arwidsson no. 103)



The material scale having been worked out in the above-mentioned way, it is then transposed to the key with the least number of accidentals:



As can be seen from the above description, the type of investigation using material scales which had long been a basic method when describing folk music or non-European music was taken as the point of departure for the new cataloguing system. But these investigations were made with a new end in view: they were designed to establish the various notes' *quantitative distribution in the tune*. Our cataloguing is based on certain characteristics of a tune's tonal material, this latter being symbolized by a numerical code derived from the material scale itself. This is carried out as follows:

1. The songs are first divided up according to the text. The following categories are separated from each other: a) songs with final refrain b) songs with intermediate and final refrain c) songs without refrain.

2. The final note in the transposed version of the material scale is indicated by a figure; c = 1, d = 2, etc., followed by a colon.

3. After the colon come figures indicating the prominent steps according to their place in the scale beginning from the bottom. Steps under the final note of the material scale are indicated by a line under the figure. The numerical code for the first example above is thus 1:125.

In each of the three text categories mentioned above representing the various kinds of text, the index cards are sorted out into numerical order, first according to the final note, then according to prominent steps.

A number of problems were met with when the cataloguing method was being worked out; these had to do mainly with the transposition of certain material scales. The more modern melodies together with some of the older ones are major or minor with a relatively large compass (octave to twelfth); these presented no difficulties. Tunes of the church mode type can be dealt with immediately. For example, the following tune (Ex. 2) with the "Dorian" sixth contains the following material scale with the numerical code 2:234.

Ex. 2 Maria Magdalena (Finlands svenska folkdiktning V:1 no. 18 m)



In many cases the diatonic scale is incomplete. Older tunes often have a compass of a sixth. Tunes with a compass of an octave are also common; these often lack the sixth degree in minor or the seventh in major. In these cases there are two different possibilities of transposing the tune so that it gets the least possible number of accidentals, e.g.:

Ex. 3 Liten Kerstin stalldräng (Geijer-Afzelius<sup>2</sup> no. 27)



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In order to avoid subjective interpretations when carrying out the purely mechanical encoding of degrees of the scale, both possibilities are given in those cases where the material gives rise to two scales, both with the least possible accidentals, i.e. in cases of uncertain tonality. Both final notes are written out, and the tunes' prominent steps are given in relation to the first of the final notes only, for the sake of simplicity. The numerical code for the example quoted above is therefore 2/6:124. In the same way the following tune has a material scale with the code 1/5:1235:

Ex. 4 Hafsfruns tärna (Wiede ms no. 167)



In some few cases there are even three possible key notes, e.g. Ex. 5. Kvarnen den malar (Nyländska folkvisor no. 380). Code number 1/4/5:123.



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Tunes of the type indicated above which can be sorted into more than one category are catalogued in special groups: keynote 1/5 separately, 2/6 separately, and so on.

By giving the possible keynotes in this way, we hope not only to avoid subjective interpretations of the tonality concerned, and double cataloguing, but also sort out in a simple way those groups of tunes which have a fluctuating tonality or those which include modulations.

A system based on the material scale leads in certain cases to greater possibilities of collecting variants than do the usual systems of cataloguing tunes by their beginnings. Here are a few examples which illustrate this point:

Ex. 6 Barnamörderskan (Finlands svenska folkdiktning no. 79a, d)







The tunes quoted above belong to the same type as far as text is concerned and are obviously closely related; however, they begin differently. The first variant has the same melodic motive for both the first and the second lines of text; the second variant has a different shape for the first line of text, while the second line agrees rather well with the corresponding line in the first variant. In other respects the variants differ from each other only slightly. These differences do not affect the prominent steps, however. Therefore, both tunes are placed in the same group and, in spite of differences in the material scales, they have the same code number: 6:13.

The same is also true of the tunes and material scales quoted below: Ex. 7 Den lillas testamente (Arwidsson no. 88, Geijer-Afzelius' no. 68). Cade number 2:234.





This purely mechanical way of cataloguing provides an objective basis for dividing up the material into groups of melodic variants and parallel groups. There follows an example of a parallel group discovered by means of the cataloguing system. Code number 2:123.

Ex. 8 Herre Jesu Christ (1697 års koralbok no. 142)



Gud, dig min sak hemställer jag (O. Andersson, Folkliga svenska koralmelodier no. 84)





Slottet i Österrik (Drake ms no. 165)



These tunes (Ex. 8) are worthy of study; it is possible, by using arguments not purely musical (e. g. references to melodies in broadsides), to demonstrate that they are related, and thus give support to conclusions arrived in using this system.

There are also good chances of studying various melodic types and of making comparative analyses on the basis of that part of the catalogue at present completed. For example, it is easy to conduct an investigation into parallel groups and groups of variants, even when these do *not* have the same tonal structure, by disregarding the first figures of the code and simply studying the appearance of the material scale in other respects. Even now the catalogue is able to exemplify various types of melody. It is true that it is not possible to base such demonstrations exclusively on the prominent steps as indicated by the code. However, the latter does provide a means of sorting out the melodic material into preliminary categories, after which the resulting groups can be analysed more scientifically.

One disadvantage of this system of cataloguing is that the preparation of the material scale is rather time-consuming; however, as has already been pointed out, this work is done mechanically with the help of the table (see p. 105).<sup>1</sup> A further disadvantage is that the rhythmic shape of the tune is here ignored; however, this latter seems to be less important as a definitive criterion for characterizing vocal tunes in question.

At the moment the Svenskt Visarkiv possesses two card indexes of tunes, one arranged according to what was said above and one according to types of texts. When new tunes are added to the collection, as a result of fieldwork, for instance, they are written out in duplicate and filed, one copy in each index. These two indexes are meant to be complementary: when the tune belonging to a certain text is sought, the index of types of texts can be used, while the other index facilitates the search for variants and parallels to a certain tune. There is also a crossreference system.

So far the catalogue can fulfill its purpose, i.e. that of acting as an accessory in the institute's work on melodic material, especially as regards a planned publication of Swedish mediaeval ballads. We hope to be able to carry out investigations into melodic categories which will correspond to work already done in the field of textual research.

(Translated by Brian Willson)

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<sup>&</sup>lt;sup>1</sup> This table has been worked out in 1960 by Mr Anders Sparf, then part-time assistant at Svenskt Visarkiv.

