

# Instrumental Thinking

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*A Preliminary Study On Orchestration*

Piet Jozef SWERTS

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Title: **Instrumental Thinking** — *A Preliminary Study On Orchestration*

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ISBN9789464920338

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## TABLE OF CONTENTS

INTRODUCTION	5
COMMENTARY ON 'FOLKSONG'	7
PART I. INSTRUMENT PRESENTATION	9
<b>1.1 The Woodwind Family</b>	<b>9</b>
1.1.1 <i>Piccolo</i>	9
1.1.1 <i>Piccolo, variant</i>	10
1.1.2 <i>Flute</i>	11
1.1.2 <i>Flute, variant</i>	12
1.1.3 <i>Alto flute in G</i>	15
1.1.3 <i>Alto flute in G, variant</i>	15
1.1.4 <i>Oboe</i>	16
1.1.4 <i>Oboe, variant</i>	17
1.1.5 <i>English Horn in F</i>	19
1.1.5 <i>English Horn in F, variant</i>	20
1.1.6 <i>Clarinet in B flat (or A)</i>	20
1.1.6 <i>Clarinet in B flat (or A), variant</i>	21
1.1.7 <i>Bass clarinet in B flat</i>	22
1.1.7 <i>Bass clarinet in B flat, variant</i>	23
1.1.8 <i>Bassoon</i>	24
1.1.8 <i>Bassoon, variant</i>	25
1.1.9 <i>Double Bassoon</i>	27
1.1.9 <i>Double Bassoon, variant</i>	27
<b>1.2 The Brass Family</b>	<b>29</b>
1.2.1 <i>Trumpet in C</i>	29
1.2.1 <i>Trumpet in C, variant</i>	30
1.2.2 <i>Horn in F</i>	31
1.2.2 <i>Horn in F, variant</i>	31
1.2.3 <i>Trombone</i>	32
1.2.3 <i>Trombone, variant</i>	33
1.2.4 <i>Tuba</i>	34
1.2.4 <i>Tuba, variant</i>	35

<b>1.3</b>	<b>The Melodic Percussion</b>	<b>36</b>
1.3.1	<i>Glockenspiel</i>	36
1.3.2	<i>Tubular bells</i>	37
1.3.3	<i>Vibraphone</i>	37
1.3.4	<i>Marimba</i>	38
1.3.4	<i>Marimba, variant</i>	39
1.3.5	<i>Timpani</i>	41
<b>1.4</b>	<b>The Strings Family</b>	<b>44</b>
1.4.1	<i>Violin Solo</i>	44
1.4.1	<i>Violin section</i>	46
1.4.1	<i>Violin section, first and second violins</i>	46
1.4.2	<i>Viola Solo</i>	48
1.4.2	<i>Viola section</i>	49
1.4.3	<i>Violoncello Solo</i>	50
1.4.3	<i>Violoncello section</i>	50
1.4.4	<i>Double bass Solo</i>	51
1.4.4	<i>Double bass section</i>	52
1.4.4	<i>Double bass section, pizzicato</i>	52
<b>1.5</b>	<b>The Harp</b>	<b>53</b>
1.5.1	<i>Harp</i>	53
1.5.2	<i>Harp, variant</i>	54

PART II.	DUO-, TRIO- AND QUARTET-COMBINATIONS	56
2.1	WOODWIND-COMBINATIONS	56
2.1.1	<b>The Flute Section</b>	56
	<i>Duo-combination: two flutes</i> 56	
	<i>Trio-combination: two flutes with piccolo</i> 58	
	<i>Quartet-combination: piccolo, two flutes with alto flute in G</i> 60	
	<i>Trio-combination: three flutes</i> 62	
2.1.2	<b>The Oboe Section</b>	66
	<i>Duo-combination:</i> 66	
	<i>Trio-combination: three oboes</i> 70	
	<i>Trio-combination: two oboes with English Horn</i> 73	
2.1.3	<b>The Clarinet Section</b>	78
	<i>Duo-combination: two clarinets in A</i> 78	
	<i>Trio-combination: two clarinets with bass clarinet</i> 82	
	<i>Quartet-combination: three clarinets with bass clarinet</i> 85	
2.1.4	<b>The Bassoon Section</b>	87
	<i>Duo-combination: two bassoons</i> 87	
	<i>Trio-combination: two bassoons and double bassoon</i> 90	
	<i>Quartet-combination: three bassoons with double bassoon</i> 92	
2.2	BRASS-COMBINATIONS	93
2.2.1	<b>The Trumpet Section</b>	93
	<i>Duo-combination: two trumpets</i> 93	
	<i>Trio-combination: three trumpets</i> 93	
2.2.2	<b>The Horn Section</b>	95
	<i>Duo-combination: two horns</i> 95	
	<i>Trio-combination: three horns</i> 97	
	<i>Quartet-combination: four horns</i> 97	
2.2.3	<b>The Trombone Section</b>	99
	<i>Three trombones in homophonic texture</i> 99	
	<i>Quartet-combination: three trombones with tuba</i> 102	



2.3	PERCUSSION-COMBINATIONS	103
2.3.1	Quintet-combination: Glockenspiel, tubular bells, vibraphone, marimba with timpani	103
2.3.2	Combinations of percussion with indefinite pitch	107
2.4	THE STRING ORCHESTRA	111
2.4.1	Combination 1 <sup>st</sup> and 2 <sup>nd</sup> violins with violas	111
2.4.2	Violins arco and basses pizzicato	112
2.4.3	Violins, violas in homophonic textures with basses pizzicato	114
2.4.4	Strings in divisi, six-part homophony in octaves	116
2.4.5	Six-part divisi with celli as counterpart and pizzicato by double bass combined with harp	119
2.4.6	Violins tremolo divisi, unisono melody by violas and cellos and pizzicato with double bass combined with the harp	122
2.4.7	Tremolo by the full string orchestra	125
2.4.8	Strings tremolo with added harp, percussion, brass and low woodwinds	128
2.4.9	Strings tutti pizzicato	133
	EPILOGUE	136
	FIGURES	138



## INTRODUCTION

A ready knowledge of instruments is a *conditio sine qua non* for further development in the field of orchestration. A solid standard work par excellence is the study of *Samuel Adler*<sup>1</sup>, a reference work that you should nevertheless have at your fingertips to consult for a particular writing or playing problem, different notation systems, the handling of special effects, the tessitura range et cetera. The more you are aware of instrumental possibilities, the greater your palette will be to lend luster and virtuosity to your orchestral imagination, be it as a composer, arranger or orchestrator.

This book is a comprehensive case study that will step-by-step explain instrumental thinking, namely how to transform simple material into attractive instrumental music in such a way that the performer gets the impression that it would have been written specifically for his instrument.

The starting point of this book in itself is basic: take a simple melody and retranslate it again and again into new entities from a single instrument to instrument combinations. This is why I opted for a simple melody: after all, the structure is clear, the tessitura not too large and the rhythm basic.

It then systematically demonstrates instrumental thinking by starting again and again from the same melodic situation and adapting that material specifically to the characteristics of a particular instrument or instrument combinations.

The structure of this book is logical. A total of 80 models were designed from solo to duo, trio to quartet combinations to ensembles for woodwinds, brass, harp, percussion and strings.

All models are linked to sampled recordings that you can listen to and download online by scanning the QR codes in this book. It is indispensable to be able to listen to these excerpts with the musical score at hand in order to try to study, understand and compare the many textures as closely as possible. The accompanying texts explain in detail the methodology that led to such results.

It is my hope and expectation that as you study these processes carefully and patiently, you will come to understand more about what it means to start thinking instrumentally. After all, it is these thought processes that will determine the quality of (your own?) orchestrations because the better textures are conceived for specific instrument groups and combinations the more expressive and artful the orchestral result will become, the better the desired effect will sound.

A next step for students, aspiring composers, conductors and orchestrators could ideally be to work out this process completely analogously for yourself: you select a suitable melody yourself, which you translate step by step into a new musical situation, just as illustrated in this book, over and over again. By trying out all these thought processes yourself, you could gain much more and faster insight than by merely studying someone else's results, for which this book can be a guide and tool though.

This book pretends to be a preliminary study, a component to the next step, the actual craft of orchestration. It is actually a more elaborated and written-out version

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<sup>1</sup> ADLER, Samuel, *The Study Of Orchestration*, Third Edition, W.W.Norton & Company, Inc. New York, 2002, ISBN 0-393-97572-X, 839 pp.

based on the lectures for the second-year orchestration course that I first taught online during the corona period. They are intended primarily for students of composition and music theory in higher education but could possibly also nourish the interest of the musician in general or any music lover hoping to shed light on the fascinating world of creative handling of music.

For those who might be interested, you further can enroll into my online courses *orchestration* at [www.udemy.com](https://www.udemy.com/course/the-five-archetypes-of-orchestration-in-60-lessons-part-i/?referralCode=194D9677E595F86947FD) ‘*The Five Archetypes of Orchestration*’ — *The Study and Practice Upon Masterpieces in 60 Lessons*.

**Part I:** <https://www.udemy.com/course/the-five-archetypes-of-orchestration-in-60-lessons-part-i/?referralCode=194D9677E595F86947FD> and

**Part II:** <https://www.udemy.com/course/the-five-archetypes-of-orchestration-in-60-lessons-part-ii/?referralCode=1490324E0ABA9A2349A3>

Each Part is focusing on one specific Archetype of Orchestration.  
Parts III-V will follow soon.

Dr. Piet J.Swerts, Varsenare, July 2023.

## COMMENTARY ON 'FOLKSONG'

All realized models here are thus derived from the old, well-known Flemish folk song "*There sat a snow-white little bird*". It is told to be an old love song, presumably from the 16<sup>th</sup> century, its origin is rather uncertain but it is said to be about a lover giving a note to a little bird for his beloved who unfortunately has just married, see fig.1 on the next page.

In my opinion, musically, it is by all means an interesting melody to take as a starting point for this study. The key is A aeolian or antique. In terms of tessitura, this melody is limited to a minor seventh, i.e. just a major second below the octave. The overall form contains four short phrases AABB'. There are two identical A phrases and a B and B' phrase because in B' the ending differs slightly with phrase B to conclude in the tonic. It is musically well balanced with two ascending and two descending lines or question and answer. The ascending line remains open on the dominant, the second descending line B' ends on the tonic A.

However, if we now stop thinking *vocally* and instead scan these phrases purely *compositionally* first, you have to put such a melodic given into a kind of vivisection in order to find as many useful motifs as possible from there. This is important when developing new melodic material for instrumental parts.

In phrase A I thus arrive at five motives, in phrase B even at 9. The most noteworthy of these is the timely motive *a1* optional with an added main note. The fourth leap *e-a* is characteristic in combination with the alternating note *a-g-a*. The rest of the melodic progression is second-note-wise except at the end, which reverts to the fourth leap *a-e-a*. In motif *a2*, two items are noteworthy on a micro level: *a2.1* rises a second while *a2.2* descends inversely in contrary motion. Motif *a2.3* is interesting because of the repetition of *c1*.

Phase B also has two motifs, *b1* and *b2* where *b2* is a shortened version of *b1* that does have an upbeat. The upbeat of *b1* is rhythmically identical to *a1*, it has become a rising tetrachord in terms of melodic line. Motifs *b1.3* and *a2.3* are possible splits of *b1* and *b2*.

This is a distinctly lyrical melody with a slow basic tempo like the heartbeat. That said, the construction of this melody and its potential for motives means you can create instrumental transformations with a fast and rhythmic character.



fig.1 Folksong, *There sat a snow-white bird* [16<sup>th</sup> c.]

## Folksong

'Daar zat een sneeuw wit vogeltje'

*p*

*rall.*

**A**

13 a1 a2  
a2.1 a2.2  
a2.3

**A**

16

**B**

19 b1 b2  
b1.1 b1.2 b1.3 b1.3 Inv a2.3 b2'

**B'**

22 b1 b2'

# part 1 INSTRUMENT PRESENTATION

In the first part of this study, we first treat each orchestral instrument separately: as a model, we use the melody. Each transformation is in function of the uniqueness of the instrument in question. When discussing the string instruments, I distinguish between a *solo part* and a part intended for the *full group*, being the violins, violas, celli and double basses. The order of the notes follows the conventional layout of an orchestral score, starting from high to low, from the woodwinds to the brass, the percussion section and the strings. Combinations from duo to quartet are covered in detail in the second part.

## 1.1 The Woodwind Family

### 1.1.1 Piccolo



To follow up and discuss this instrument group, we will follow the arrangement as you can read in an orchestral score, i.e. arranged from high to low. A first caveat one might make when considering a musical retranslation here is the key of the melody itself. This could depend, among other things, on the construction of an instrument: for clarinets in B-flat, for instance, keys with flats in the key are more appropriate than sharps because it plays more easily. Apart from that, the key also determines the position of the melody for your chosen instrument. Here, for example, the minor seventh's ambitus can easily be placed in the middle register.

**Folksong**  
piccolo

**1<sup>a</sup>**

fig.2 Folksong, *piccolo*, model 1a

The piccolo, of course, is an instrument that sounds an octave higher than the flute, so the tessitura as we see it here in this minor seventh sounds like  $c^3$  and ends in  $b\text{-flat}^3$ . The mode was transposed a minor sixth higher to F aeolian. The highest note