A STUDY OF MODAL PITCH COLLECTIONS

in

STANZE (2003) – LUCIANO BERIO

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A Thesis

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Preface

Luciano Berio's *Stanze* is a five-movement work, set to songs about death – or as Berio called it "that unmentionable place" ¹. In this composition, Berio's last work, written in 2003 shortly before his death, he treats death with some ambiguity and even a bit of gentle humor. *Stanze* refers not to poetic stanzas, but to "rooms", and each of its sections uses a text from a writer close to the composer: Paul Celan, Giorgio Caproni, Edoardo Sanguineti, Alfred Brendel and Dan Pagis. Most of the texts are set to quietly haunting music, as if the composer had a sixth sense that this might be his last utterance.²

Scored for Baritone, three male choruses and large orchestra, *Stanze* is comprised of a distinctive chordal language. The rich textures, superimposed one upon another, are typical to Berio's use of timbrally unified layers of sound.

Among the dense, polychromatic chords and lines, several pitch collections of diatonic quality stand out. Comprised of tones that resemble the traditional church modes, such as the Mixolydian, Dorian, Lydian etc, these pitch collections are highly distinctive and their appearance in this work cannot be regarded as coincidental. Clearly distinguished from, and in sharp contrast to their surroundings, these pitch collections manifest themselves by various means:

- 1. Clear appearance, vertically uninterrupted by tones external to the mode
- 2. Uniformity of rhythmic placement and duration
- 3. Uniformity of articulation and dynamics
- 4. Allocation of the collection's pitches to a distinctive section of the orchestra or choir
- 5. A massive number of instruments that participate in their execution

Do these pitch collections have a definitive role? Are they unique in this sense to this specific work and its somber subject? This study will venture to answer these questions, by tracing their occurrences, defining their unique characteristics and examining the consistency of their appearances. Further assumptions and suggestions

¹ Quoted by Andrew Clements, The Guardian, Friday 5 August 2005

² Clements, 2005

regarding the phenomenon, particularly its structural function, will be made by examining relations between the pitch collections and correlation between them and the text.

Terminology and procedures

- The modes indicated hereinafter are based either on distinctive bass note at the point of appearance or on contextual bass reference.
- Middle C = C4
- Music examples are usually presented in full score with the relevant area framed within a rectangle.
- To facilitate discussion and analysis, certain general terms are used to express specific meaning in this essay:
 - Modal Pitch Collection (MPC) a collection of tones that comprise a mode, usually one of the traditional church modes, but also others that have similar assembly and construction of intervals, i.e. seven pitches with no consecutive minor seconds
 - External external, alien or foreign notes to the discussed pitch collection
- The pitch collection are represented by the standard set theory terminology: C = 0; C# = 1; D = 2 etc.
- Chords of traditional or jazz quality are symbolized in the popular, letters and degrees system. Examples: Eb(9)Maj7, Am7,9, Bb6 etc. In case of uncertainty, the pitch class set should be consulted. Example: Bb6 is a chordal representation of [10,2,5,6]

Table of instruments' abbreviations

Abbreviation	Instrument	Abbreviation	Instrument
pic	piccolo flute	hr	horn
flt	flute	trb	trombone
ob	oboe	tub	tuba
e.hr	English horn	glk	glockenspiel
cl	clarinet	cel	celesta
cl.pic	piccolo clarinet	pno	piano
cl.b	bass clarinet	ch1-t, ch1-b	choir I tenor, baritone
a.sx	alto saxophone	ch2-t, ch2-b	choir II tenor, baritone
t.sx	tenor saxophone	bar	baritone
bsn	bassoon	vln	violin
cbsn	contrabassoon	vla	viola
trp	trumpet	vcl	cello
		cb	contrabass

Table of graphics

Graphics	Meaning
43-1	measure-beat
[1,2,3]	Pitch classes in square brackets – pitch class, from root of
	mode
(0,1,2)	Pitch classes in round parentheses – pitch collection does not
	manifest a clear sense of tonal center
[1,2,3] [4,5,6]	In impure occurrences, the external tones are written within a
	second pair of square parentheses
[0,3,7,10/11]	An ambiguity in the definition of the pitch collection. Either
	one of the two pitches separated by the slash may be a part of
	the collection, but not the two of them together
vln1-div2	Part of a divisi (from higher part down)
"Almighty"	Only the underlined part of the poetic text is relevant to the
	discussion

Introduction

Whether explicitly and intentionally experimental, or already influenced and imbibing from precedent modern music, harmony of the 20th century has gradually expanded and challenged the boundaries of the traditional elements of music. Its central elements of characterization are certain modes, harmonic progressions and chords. As we advance through the history of western music in the 20th century, the concept of these components is undermined; through deliberate destabilization of the tonal role or by absolute transformation and dismantling of tonal connotation whatsoever³.

The musical idiom of *Stanze* is diverse in several senses, but the tone contrast between modal and non-modal⁴ pitch collections is remarkable and immediate. The opening chord, a terrifying, monolithic mass of sound, is comprised of all twelve tones and executed with a horrific noise, produced by a slow and hard pressed bow on the strings. From within this chaos emerges a six-four D minor chord, supported by additional tones of the D Dorian mode. It is executed by a substantial part of the orchestra (see EXAMPLE 1), and although it includes other tones, external to D Dorian, its appearance is of a strikingly modal distinction. There are, of course, more sets and subsets within this occurrence, and obviously there are many subsets within the 12-tone chord of the first measure – some of may be of interest. But the choice of this particular occurrence, as all other pitch collections discussed in this study, has been made due to its apparent audial manifestation.

³ One of many examples may be the role of the C major chord in Alban Berg's *Wozzeck. Versuch einer Wilrdigung*, Universal Edition, Vienna 1957, pp. 311-27

⁴ As stated before, the term 'modal' refers to either a church mode or a seven-pitches set with no consecutive minor seconds.



EXAMPLE 1 - Score mm. 1 to 7

Berio's own view of the composing act is that of an exploration of the composer's own experiences in works that invent and elaborate "patterns of expectation, creating modes of conditioning the perception of a willing listener." Incidentally, Berio's use of the term 'mode' is most appropriate to this discussion: the listener is conditioned to certain tone-collections (and then to the absence of certain tone-collections), and by means of quantity and placement, the listener distinguishes the rare occurrences as special events. Furthermore, as a result of their scarcity the said modes evolve into unique phenomena, far from their traditional use as a complete tonal environment; the D Dorian is hardly anymore a hierarchy of seven tones serving as vocabulary for a compositional unit, but a glimmering entity, radiating a mood of another musical world.

An absolutist approach may argue that musical meaning lies exclusively within the context of the work itself, in the perception of the relationships set forth within the musical work. A referentialist approach would contend that music also communicates meanings which in some way refer to elements that are, in definition external to the particular idiom that the composition present (meyer 1956). As already mentioned, the first MPC is manifested promptly after the twelve-tone chord in the beginning. Due to that early and unequivocal occurrence, the musical meaning of the MPCs in *Stanze* is both external and internal: it may carry a cultural charge of traditional European or jazz music, but it may also be just another tone collection, distinguished from other tone collections of the composition by its pitch and intervalic content, yet equal to them in the cultural charge.

The significance of the Modal Pitch Collections (MPC)

Berio is well known for his referential practices, ranging from borrowing fragments and elements (as in *Sinfonia*⁷, 1968) to the complete adaptations of folk songs (*Folk*

⁵ Listening to Berio's Music – George W. Flynn. The Musical Quarterly, Vol. 61, No. 3 (Jul., 1975), pp. 393, Published by: Oxford University Press Stable

⁶ Remaking the Past, Music Modernism and the Influence of the Tonal Tradition, Chapter 1 *Toward a Theory of Musical Influence*, pp. 1-20 – Joseph N. Straus, Harvard University Press, 1990

⁷ See C. Catherine Losada *Between Modernism and Postmodernism: Strands of Continuity in Collage Compositions by Rochberg, Berio, and Zimmermann*, 2009, also J. Peter Burkholder, *Types of borrowing*, Grove Music Online

songs, 1964). Utter musical quotation and juxtaposition of contrasting styles in *Stanze* is a subject for further, large scale research⁸. Yet the application of mere pitch collections that carry distinct traditional connotations is also a considerable mean for creating heterogeneity in the musical language of the composition. As the first MPC appears so promptly, immediately at the second measure of the composition, it cannot be referred to as a deviation from the tone-idiom of the composition (Losada 2009). Rather, its exclusivity stems from its rarity throughout the work. Due to the degree of the contrast between the MPCs and other pitch collections in the composition, the MPCs stand out as unique. This study presumes the phenomenon of the MPC to be culturally charged. As that, it is assumed as a powerful agent of affiliation. A musical phenomenon, that is differentiated by means of strong affiliation, can be an essential tool for homogeneity, multiple-layering and a possibility of creating sub-structures in composition. But such discoveries are yet to be made, and may require a thorough, extensive analysis of the work – an endeavour beyond the scope of this study.

MPC and text

Few composers have exploited the possibilities of the human voice as Berio. His compositional treatment of the human voice encompass a wide range of linguistic, semiotic and gestural aspects⁹. Analysis by reference to text should then be approached free of presuppositions. The baritone part in *Stanze*, the main conveyor of the text, does apply nonverbal gestures (example: Stanza V, m. 614), but they are scant. Moreover, in comparison with the choir, the baritone's part employs a rather conservative treatment of the text. For this reason, the study does stress relationships between musical phenomena – and specifically the MPCs – and the objective meaning of the text.

⁸ Losada 2009

⁹ Flynn 1975, also *Music Is Not a Solitary Act: Conversation with Luciano Berio* – Theo Muller and Luciano Berio Source: Tempo, New Series, No. 199 (Jan., 1997), pp. 16-20 Published by: Cambridge University PressStable

Definition of unique pitch collections

The pitch collections chosen to be included in the category of MPC are the diatonic scales¹⁰, with an emphasis on modes that contain the traditional major and minor lower pentachord notes: 0,2,4,5,7 and 0,2,3,5,7¹¹. These pitch collections and their subsets appear in varied degrees of salience. The contrast between them and the general environment occurs again and again throughout the composition.

It should be noted – perhaps even stressed – that there is a significant discrepancy between the audial clarity of the discussed occurrences, and its enharmonic notation. Although Berio had had the reputation of reclaiming the fundamental role of harmony in musical structure¹², we cannot expect harmony in this composition to function in traditional patterns. It seems as if Berio did not mean to represent the MPCs as traditional pitch collections at all, perhaps even reject them as such. One of many examples can be found in Stanza V, m. 612: a pitch collection of [8,10,11,1,3,5,7] (Ab melodic minor) appears broadly and uninterruptedly on four long quarter beats (J = 68). The baritone's part is comprised of the three tones of the Ab minor triad, but notated as Eb, Bb, Ab (EXAMPLE 2). Many other instruments use enharmonic spelling that visibly defies that of a traditional mode.



EXAMPLE 2

¹⁰ Scales that comprise of the Interval Classes 2-2-1-2-2-1 and 2-1-2-2-2-1

¹¹ Both defined and numbered by Allen Forte as 5-23

¹² Berio, Luciano – The Grove music Online, editor: David Osmond-Smith (Biography updated 27 Aug 2003)

Scope of research

This is a study of a specific aspect and it cannot pretend to propose an extensive and thorough analysis of the composition. Rather, it suggests an insight into a powerful compositional tool, and proposes an examination through the prism of its concept.

Not all existing relevant pitch collections and subsets are observed; some marginal and ambiguous cases are overlooked in this research:

- a. The frolicsome, comic Stanza IV is characterized by harmonic and orchestrational colors borrowed from jazz, even Broadway-show-like gestures. The modes being discussed here are therefore juxtaposed against an environment not so external as in the other stanze. Most of the quick, fleeting chords are therefore overlooked and only clear, long occurrences of the discussed pitch collections are mentioned.
- b. Ambivalent subsets of too little number of pitches are also excluded. Despite their natural salience, the choirs often fall into this category.
- c. The parts of the glockenspiel and the celesta are mostly chromatic clusters.

 Due to that and their percussive-color sound, they are usually disregarded.

Occurrences of the pitch collections

The following table displays all detected appearances of the MPCs: pure occurrences; clear occurrences but tinged with notes external to them; and occurrences that are evidently superimposed on or against a substantial external background. Defining these pitch collections as unique, especially when their occurrence is not pure, is determined not only by their diatonic quality but also by these salience-intensifying factors:

- 1. Number of instruments participating in the execution of the unique pitch collection
- 2. Unity of rhythm and/or contrast to rhythm of environment
- 3. Unity of articulation and/or contrast to articulation of environment
- 4. Unity of dynamics and/or contrast to dynamics of environment

Along with the qualities of manifestation of the MPC itself, there is importance to the relations of the MPC to its horizontal surroundings: how it emerges, is it lead into by means of voice leading and how it dissolves – if at all – into the following instance.

Table of occurrences

Stanza	Location	Pitch collection	Instrumentation	further distinguishing qualities	Textual Context	Purity of occurrence
I	2	[2,4,5,7,9,11,0] D Dorian	pic, flt1,3, ob1, e.hr, cl.pic, cl1,2,3, cl.b, a.sx2, bsn1, trp1,2,3,4, hr1,2,3,4, trb1,2,3, tub, vln2, vla		(No text – introduction)	Superimposed on external background
	9	(0,2,4,5, 7,9,11) D Dorian (No clear root)	flt1,2,3, e,hr, cl.pic, cl1,2, trp1,2, hr1,2,3 ob1, a.sax1, vlnI2	unity of rhythm, articulation and dynamic: tenuto quarter-note, <i>ppp</i> Long, already present notes	(No text – introduction)	Some external tones
	10, 2 nd beat to end	[3,8,10,0,1,5,7] [4] Eb Mixolydian	cl.pic, ob1, a.sx1,2, hr3,4, vln1-div2, vla, vcl, cb	long notes	(No text – introduction)	Some external tones
	16, 2 nd beat	[8,11,0,2,3,7] Ab Lydian	cl.pic, cla1,3, bsn1,2, bar, vln2, vla-div2, vcl, cb			Some external tones
	26, 1 st beat to 26, 3 rd beat	[2,4,5,7] D minor tetrachord Superimposed on: [3,5,10,2] Eb(9)Maj7	flt1,2,3, ob1,2, e.hr, cl.pic, cl1,2,3, a.sx1,2, t.sx hr1,2, bar, vln2, vcl, cb	unity of rhythm, articulation and dynamic: tenuto quarter-note, ppp Long, sustained notes	" <u>als</u> wär der Leib" ("as though the body"	Superimposition
	32, 2 nd beat	[9,11,0,4,6] [1] Am9,13	ob2, hr1,2, trb1, tub, vln1-div2, vln2, vla, vcl, cb	unity of rhythm, articulation and dynamic: tenuto quarter-note, ppp Long, already present notes	Right after utterance of and during the word "Herr"	Some external tones
	37, 2 nd beat	[9,11,0,2,4,6,7] A Dorian	flt1,2,3, ob1,2, e.hr, a.sx2, t.sx, bsn1,2 (partially), cbsn, trp1,2, vln1 (partially), vln2- div*, vla-div1, cb	unity of rhythm, articulation and dynamic: tenuto quarter-note, <i>ppp</i>	Within "wir sind nah." (we are near.")	Some external tones
	47, 7 th beat	[9,11,1,2,4,6,8] A Ionian	ob1,2, e.hr, cl.pic, a.sx1,2, t.sx, hr3, trb1,2, bar, vcl, cb	Long, already present notes unity of rhythm, articulation and dynamic: tenuto eighth-note, ppp	"Es war blut" ("It was blood") As if sweetening the assertion it was indeed blood	Pure

	55, 4 th beat	[7,8,10,0,3,2,5] [9] Bb Mixolydian	pic, ob1,2, e.hr, cl.pic, cl1,3, a.sx1,2, t.sx, trp1, vln1-div1, vln2, vla, vcl, cb	unity of rhythm, articulation and dynamic: half-note, ppp 13	Just before and with "Augen" in "Es warf uns dein Bild in die Augen" ("It cast your image into our eyes")	Some external tones
	60, 1 st beat	[9,11,0,4,6,8] [0] A melodic minor	cl.b, a.sx1,2, t.sx, bsn1,2, trb1	unity of rhythm, articulation and dynamic: syncopated half-note, ppp except mf of bassoons' A2	Between "Es glänzte." ("It gleamed") and "Es warf uns dein Bild in die Augen" ("It cast your image into our eyes")	Some external tones
	86, 2 nd beat	[9,11,1,2,4,6,7] [0,5,10] A Mixolydian	flt1,2,3, ob1,2, e.hr, bsn2, trp1, trb1,2,3 cl.b, t.sx, bsn1, trp2, hr1, tub, vln-	unity of rhythm, articulation and dynamic: half-note, ppp Various lengths, attacks and dynamics	(No text)	Some external tones
	104, 2 nd beat to 105	[9,10,1,2,4,6,7] A Mixolydian b2	div1, vln2, vla, vcl, cb t.sx, hr1, vln1,2, vla, vcl, cb		(No text)	Pure
II	109 to 110	[4,6,9,11,1,2] A Ionian – bass E	cl.bs, t.sx, bsn1,2, cbsn, trb1,2,3, tub, ch-b	Rather blurred but sustained low notes, contrasted to swift staccati of woodwinds	(no text - introduction)	Some external tones
	113	[9,11,1,3, 4,6] [2] A Lydian	bsn1,2, cbsn bar, vla, vcl, cb	Just a remainder of preceding notes Long, crescendo	During "a tirar giù la valigia." ("To pull down my suitcase")	Some external tones
	132, 3 rd beat	[2,6,7,9,0,] [1] D7sus	cl.b, a.sx1,2, t.sx, hr1,2,3,4, trb1,2,3, tub, ch (all)	Horns on the beat, followed by all the rest off the beat.	During a syllabic manipulation of the word "reco" ("I bring")	Some external tones
	133, 1 st beat	[9,11,0,2,3,7] A Locrian #2	pic, cl.b, a.sx1,2, t.sx, bsn1,2, trb1,2,3 tub	All instruments appear as an attack on the beat	"Vorrei" ("I would like")	Pure
	133 to 136	several 4-notes chords: [0,5,8,10] [2,7,9,11] [8,11,1,4] [0,3,7,9]	Ch, doubled either by saxophones and bass clarinet or by trombones and tuba	Clear, uniformed attacks	"Vorrei, vorrei, conversare ancora con voi" (I wish, I wish to chat with you again")	Superimposed on partially external background
	137	[2,7,9,11,0] D Mixolydian	pic, tub, trb1,2,3, ch, vla	Loud and long chord by ch, pp tremoli of low brass	"voi" ("you")	Pure

All participating instruments are in ppp starting on mm. 45 and 46. In fact, in mm. 48 most of the strings are required to produce a grinding noise in mf, immediately diminishing to an undefined dynamic. Due to the context, it is assumed that right after that they are again in ppp.

Here, and many other places, Berio takes the liberty to manipulate and alter the text to fit his concept. Compare with the complete original text.

	138	[0,3,7,9,10/11] C Dorian/mel.min.	pic, cl.pic, cl.bs, a.sx1,2, t.sx, ch	One of the longest MPC's chords in the	"vorrei conversare" ("I	Some external tones
	141, 2 nd	[0,1,5,8,10] [9]	trb1,2,3, tub, choir,	whole composition. Clear, uniformed	would like to talk") Between "Vorrei,	Some external
	beat	F Aeolian	strings (except bass)	attack	vorrei, conversare ancora con voi" and "ma ignoro il luogo" ("but I do not know the place")	tones
	219, 2 nd beat	[10,2,5,7] Bb6	a.sx1,2, t.sx, cbsn, trb1,2,3, tub, cb			Some external tones
	220, 1 st beat	[10,2,5,7] Bb6 Negligible reminiscence of C# in violins	a.sx1,2, t.sx, cbsn, trb1,2,3, tub, pno, bar, cb	Repeated chords and melodic pattern, beginning with relevant pitch collection	" <u>que</u> lo que dico?" ("what I say?")	Pure
III	228, 1 st beat	[5,7,9,11,2,4] F lydian no C, continues to end of 228 but piano interrupts with external notes	flt1,2,3, ob1,2, e.hr, cl.pic, cl.b, t.sx, bsn1,2, pno (partially), hr1,2,3,4, vln1,2 vla, vcl		"ho messo il nitri" ("I put the nitrite")	Pure
	239, 2 nd beat	[3,5,7,8,10,0] [4,9,11] Eb Ionian/Mixolydian	cl1,2,3, a.sx1,2, cbsn, trp1, tub, vln1-div1, vln2- div1, vla-div, cl- div1,2, cb		Just before "rispondi tu" ("answer, you")	(weak occurrence) Superimposed on external background
IV	297 to 300	[3,5,7,9,10,2] Eb Lydian	pic, flt1,2,3 (partially), ob1,2 (partially), cl.pic, cl1,2,3, t.sax (partially), bsn1,2, trpt 1,2 (partially),	There are only two external notes: two, short appearance of Db6 in piccolo and E in several octaves, but heard as a	"The Holy Ghost" 1 st association of the Lydian mode to a holy entity.	Some external tones
			hr1,2,3,4, tub, vln1 (partially), vln2, vla (partially), vcl (partiallly), cb	chromatic neighbor.		
	301	[1,3,5,7,8,10,0] Db Lydian (bass is F but Db is accentuated by a ff bones, horns and most of strings)	pic, flt1, ob1,2, cl.pic, cl2,3, cl.bs, t.sax, bsn1,2, trp1,2, hr1,2,3,4, trb1,2, tub, vln1, vln2, vla, vcl, cb		"Ghost" 2 nd association of the Lydian mode to a holy entity.	Some external tones
	344 to 347	[2,4,5,9,10,0] D Aeolian	bar, vla, vcl, and joining in 346: vln2, cb		"Alois"	Pure

	348 to 352	[2,4,6,7,9,1]	pic (partially),		"razor sharp	Some external
		D harmonic	cl.bs, bsn1, tub,		ear detected"	tones
		minor ¹⁵	bar, vln1(solo), vla,			
	110 115	12.5.5.0.10.0.23	vcl, cb			
	413 to 417	[3,5,7,9,10,0,2]	flt2,3, cl.bs,		"straight to the almighty"	Some external
		Eb Lydian	sx.a1,2, bsn1, trp1, hr1, trb1, bar, vln2,		3 rd association of	tones
			vla, vcl (although		the Lydian mode	
			tinged, most of the		to a holy entity.	
			scampering notes			
			of the pic, flt1 and			
			t.sx belong to the pitch collection)			
	418 to 419	[10,0, 2,3,5,9]	pic, flt1,2,3,	Most instruments	"migh <u>ty</u> "	Some external
	410 10 419		a.sx1,2, t.sx, hr1,2,	sustain long notes in	mign <u>ty</u>	tones
		Eb Lydian	trb1,2, bar, vln1	or towards pppp		
			(partially), vln2,	****		
			vla			
	420 to 421	[8,10,0,2,4,5]	cl.bs, hr1, bar,	All instruments in	"migh <u>ty</u> "	Some external
		Ab Lydian #5	vln1,2, vla (partially), vcl	crescendo towards ff		tones
	428 to 429	[4,7,10,2]	flt1,2, ob1, cl.pic,		"his eighteen"	pure
	120 to 129	E half-dim	cl1, cl.bs, bsn1,		ins eighteen	pare
			hr1, bar, vln1,2, vla]	
	430 to 431	The above is	A2: cl.bs, t.sx.,		" <u>or was is thirty</u>	pure
		superimposed on A	bsn1, bar, cb		three"	
	445 to 453	bass [7,9,11,1,2,4,6]	cl.bs, t.sx,		"other open up	Some external
	445 10 455	G Lydian	hr1,2,3,4, trb1, trb2		before us,	tones
		2 2 3 4 1 4 1	(partially), bar,		granting entry	
			vln1, vla, vcl		to"	
	602 to	[9,11,1,2,4,6]	pic, flt1,2,3, cl.pic,	Homogeneuos attack	(No text)	Pure
	603, 1 st	A	cl1,2,3, vln1,2	and duration, then a		
	beat	Ionian/Mixolydian		tonal glissandi by strings from E to A		
				and reiteration of A		
	611, 1 st	[7,9,10,2]	flt1,2,3, ob1,		Just before "und	Pure
V	1 -		ì	1	1 1	1
	beat	Gm9	a.sax1,2, hr1,2,		gebrochener	
	beat	Gm9	trb1,2, ch1-t,b,		Stim" ("and	
			trb1,2, ch1-t,b, vln1, cl-div, cb		Stim" ("and broken brow")	nure
·	611, 4 th	[3,5,6,9,10,1]	trb1,2, ch1-t,b, vln1, cl-div, cb cl1, a.sx1,2, trb1,2,		Stim" ("and broken brow") "und	pure
·		[3,5,6,9,10,1] Eb "Mi	trb1,2, ch1-t,b, vln1, cl-div, cb		Stim" ("and broken brow")	pure
	611, 4 th	[3,5,6,9,10,1] Eb "Mi Shebeirach" Jewish	trb1,2, ch1-t,b, vln1, cl-div, cb cl1, a.sx1,2, trb1,2, ch1-t,b, bar, vln1,		Stim" ("and broken brow") "und ge <u>bro</u> chener	pure
	611, 4 th beat	[3,5,6,9,10,1] Eb " <i>Mi</i> Shebeirach" Jewish Klezmer mode ¹⁶	trb1,2, ch1-t,b, vln1, cl-div, cb cl1, a.sx1,2, trb1,2, ch1-t,b, bar, vln1, vla, vcl-div, cb		Stim" ("and broken brow") "und ge <u>bro</u> chener Stim"	
	611, 4 th	[3,5,6,9,10,1] Eb "Mi Shebeirach" Jewish Klezmer mode ¹⁶ [8,10,11,1,3,5,7]	trb1,2, ch1-t,b, vln1, cl-div, cb cl1, a.sx1,2, trb1,2, ch1-t,b, bar, vln1, vla, vcl-div, cb flt1,2,3, ob1,		Stim" ("and broken brow") "und gebrochener Stim"	pure Pure
	611, 4 th beat	[3,5,6,9,10,1] Eb " <i>Mi</i> Shebeirach" Jewish Klezmer mode ¹⁶	trb1,2, ch1-t,b, vln1, cl-div, cb cl1, a.sx1,2, trb1,2, ch1-t,b, bar, vln1, vla, vcl-div, cb		Stim" ("and broken brow") "und ge <u>bro</u> chener Stim"	
	611, 4 th beat	[3,5,6,9,10,1] Eb "Mi Shebeirach" Jewish Klezmer mode 16 [8,10,11,1,3,5,7] Ab melodic minor	trb1,2, ch1-t,b, vln1, cl-div, cb cl1, a.sx1,2, trb1,2, ch1-t,b, bar, vln1, vla, vcl-div, cb flt1,2,3, ob1, a.sx1,2, t.sx, trb1,2,		Stim" ("and broken brow") "und gebrochener Stim" "und gebrochener	
	611, 4 th beat 612 615, 1 st	[3,5,6,9,10,1] Eb "Mi Shebeirach" Jewish Klezmer mode ¹⁶ [8,10,11,1,3,5,7]	trb1,2, ch1-t,b, vln1, cl-div, cb cl1, a.sx1,2, trb1,2, ch1-t,b, bar, vln1, vla, vcl-div, cb flt1,2,3, ob1, a.sx1,2, t.sx, trb1,2, ch1-t,b, bar, vln1, vla-div, cl-div flt1,2,3, a.sx1,2,		Stim" ("and broken brow") "und gebrochener Stim" "und gebrochener Stim" "und gebrochener Stim"	Pure Some external
	611, 4 th beat 612 615, 1 st beat to	[3,5,6,9,10,1] Eb "Mi Shebeirach" Jewish Klezmer mode 16 [8,10,11,1,3,5,7] Ab melodic minor	trb1,2, ch1-t,b, vln1, cl-div, cb cl1, a.sx1,2, trb1,2, ch1-t,b, bar, vln1, vla, vcl-div, cb flt1,2,3, ob1, a.sx1,2, t.sx, trb1,2, ch1-t,b, bar, vln1, vla-div, cl-div flt1,2,3, a.sx1,2, t.sx, bsn1,2, hr1,2,		Stim" ("and broken brow") "und gebrochener Stim" "und gebrochener Stim" "und gebrochener Stim" "werden die toten" ("the dead	Pure
	611, 4 th beat 612 615, 1 st	[3,5,6,9,10,1] Eb "Mi Shebeirach" Jewish Klezmer mode 16 [8,10,11,1,3,5,7] Ab melodic minor	trb1,2, ch1-t,b, vln1, cl-div, cb cl1, a.sx1,2, trb1,2, ch1-t,b, bar, vln1, vla, vcl-div, cb flt1,2,3, ob1, a.sx1,2, t.sx, trb1,2, ch1-t,b, bar, vln1, vla-div, cl-div flt1,2,3, a.sx1,2,		Stim" ("and broken brow") "und gebrochener Stim" "und gebrochener Stim" "und gebrochener Stim"	Pure Some external

The ambiguity of the 3rd should be mentioned as it appears only once, as a grace note, but in the leading solo violin. The major 3rd appears as F#6 in the piccolo and violin 2.

Also called the Ukrainian, Altered Ukrainian, Doina, or Altered Dorian. Avi Bar-Eitan *The Steiger*

Ahavo Rabo In Klezmer Music, (Master's thesis, the Hebrew University 2004), pp. 6.

648	[0,2,3,7,9,11] C melodic minor	t.sx, hr1, tub, ch1- t,b, ch2-t,b, vln1,2, vla	No text, several vowels sung by choirs	Pure (transitory Bb4, Db5 in t.sx)
649	[5,7,8,10,0,2,3] F <i>Mi Shebeirach</i> mode	c11,2,3, hr1,3,4, trb2,3, tub, ch1,2,3, vln2	No text, several vowels sung by choirs	Pure
651, 2 nd beat	[10,1/2,5,7] Bbm6 or Bb6	flt2,3, t.sx, ch, vln1, vln2, vla, vcl, cb	No text, several vowels sung by choirs	Superimposed on external background
653, 3 rd beat	[0,3,6,8,9] Ab7(b9)/C	flt1,3, a.sx1,2, t.sx, hr1,2,3,4, trb1, ch1,2,3, vln1,2, vcl, cb	"weiß" ("known")	Some external tones
662, 4 th beat	[3,7,9,10,1] Eb Lydian b7	cl.bs, a.sx1,2, t.sx, bsn1, hr1,2,3,4, glk, ch1,2,3-b, bar, vln1, vla (partially), vcl	" <u>wer</u> verlucht" ("who is cursed")	Some external tones

Appearances of Modal Pitch Collection

Stanza I - Approaching decay and union

Paul Celan – Tenebrae Darkness

English translation by Bill Brunson

Nah sind wir, Herr We are near, Lord, nahe und greiffbar. near and at hand.

Gegriffen schon, Herr,
ineinander verkrallt, als wär
der Leib eines jeden von uns
dein Leib, Herr.

Handled already, Lord,
clawed and clawing as though
the body of each of us were
your body, Lord.

Bete, Herr, Pray, Lord, bete zu uns, pray to us, wir sind nah. we are near.

Windschief gingen wir hin, gingen wir hin, uns zu bücken went there to bend nach Mulde und Maar. Wind-awry we went there, went there to bend over hollow and ditch.

Zur Tränke gingen wir, Herr.

To be watered we went there, Lord.

Es war Blut, es war, It was blood, it was was du vergossen, Herr. what you shed, Lord.

Es glänzte. It gleamed.

Es warf uns dein Bild in die Augen, Herr.

It cast your image into our eyes, Lord.

Augen und Mund stehn so offen und leer, Herr. Our eyes and our mouths are open and empty, Lord.

Wir haben getrunken, Herr. We have drunk, Lord.

Das Blut und das Bild, das im Blut war, Herr. The blood and the image that was in the blood, Lord.

Bete Herr. Pray, Lord. Wir sind nah. We are near.

As described in the introduction, stanza I, Paul Celan's *Tenebrae*, opens with a twelve tone chord that could well deserve the title *Darkness*. It dissolves immediately into a pitch collection of D Dorian, superimposed on external notes, remnants of the preceding chord (EXAMPLE 1). This quick transition occurs again in m. 6, where the noisy strings highlight another twelve-tone chord, dissolving again into the same pitch collection (0,2,4,5,7,9,11), but this time with no clear sense of root and local tonality.

Cb.

= 64 EXAMPLE 3 The entire stanza is governed by a juxtaposition of Eb and the low drone of A (mainly A2). First hints are found in the 12-tone chords of mm. 1 and 6, where the contrabass and contrabassoon play Eb2 while the tuba and 3rd trombone play A2. An explicit manifestation of the Eb-A pair appears at mm. 11 to 15 (EXAMPLE 3, EXAMPLE 4), the first measures of the text, where the baritone swerves between Eb4 and A2, at the extremes of his range.



EXAMPLE 4

This duality repeats itself many times throughout the stanza, as A2 gradually establishes itself as a more or less tonic note. Meanwhile, the MPCs glimmer above the long bass lines. The following table (EXAMPLE 5) shows considerable correspondence of the MPCs with the Eb-A duality. Six of the twelve occurrences are based on A, the two pure ones are of major quality. Three are based on or affiliated with D minor and four are based or affiliated with Eb.

Location	Pitch collection	Root/chord	Mode	May be affiliated	Purity of occurrence
				with	
2	[2,4,5,7,9,11,0]	D	Dorian		Superimposed on external background
9	(0,2,4,5, 7,9,11)	No clear root		D Dorian	Some external tones
10, 2 nd beat to end	[3,8,10,0,1,5,7]	Eþ	Mixolydian		Some external tones
16, 2 nd beat	[8,11,0,2,3,7]	АЬ	Lydian	(Sounds as a temporary "tonic" after Eb Mixolydian	Some external tones
26, 1 st beat to 26, 3 rd beat	[2,4,5,7]	D	Dorian or Aeolian		Superimposition
	Superimposed on: [3,5,10,2]	Eþ(9)Maj7		Eb Ionian	
32, 2 nd beat	[9,11,0,4,6]	Am9,13		A Dorian	Some external tones
37, 2 nd beat	[9,11,0,2,4,6,7]	A	Dorian		Some external tones

47, 7 th beat	[9,11,1,2,4,6,8]	A	Ionian		Pure
55, 4 th beat	[7,8,10,0,3,2,5]	ВЬ	Mixolydian	Eb Ionian	Some external tones
60, 1 st beat	[9,11,0,4,6,8]	A	melodic minor		Some external tones
86, 2 nd beat	[9,11,1,2,4,6,7]	A	Mixolydian		Pure
104, 2 nd beat to 105	[9,10,1,2,4,6,7]	A	Mixolydian b2		Some external tones

EXAMPLE 5

Some of the MPCs appear by way of gradual emergence, either by clearing external notes of a super-set, leaving the notes of the MPC (mm. 2, EXAMPLE 1) or by leading voices into it and through (m. 86, EXAMPLE 6).

Yet most MPCs appear as independent spots, with no apparent voice leading into or from them (mm. 26, 1st beat to 26, 3rd beat, 32, 2nd beat, 47, 7th beat, 55, 4th beat, 60, 1st beat, 86, 2nd beat). An extreme example is m. 47, 7th beat (EXAMPLE 9): the chord is constructed mostly by solitary eighth-notes, after few beats of silence (oboes, English horn, saxophones) or skipped into (horn 3, trombones 1,2). The A2 drone in the low strings cannot really account for continuity of voice leading, as it is introduced many measures before and stretched further after. Moreover, the MPC is abruptly neglected in favor of the grating noise of the strings and newly introduced instruments. Introducing the MPC as a secluded, detached phenomenon contributes to its singularity. Berio uses disintegration and discontinuity in other elements of his compositions as means of emphasizing other elements¹⁷. In this case it could be the singularity of the MPCs. On the other hand, the means of seclusion – rhythmic isolation and lack of voice leading – are not singular to the MPCs in this stanza, but pertain also to non MPCs. The conclusion cannot then be absolute.

The concentration on A, Eb and D, and particularly the dualism of the blatant juxtaposition of A and Eb, may suggest a musical metaphor to the text: the ambivalent attitude towards the Lord; that of somber death and wretched decay, along with an anticipation for union.

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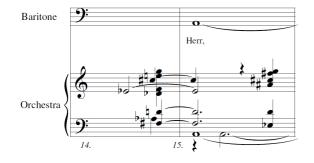
¹⁷ Flynn 1975, p. 404





In mm 32, 2nd beat (EXAMPLE 7), for the first time since the text appeared in the composition, occurs a MPC [9,11,0,4,6], that can be interpreted as a part of A Dorian. It is tinged by few notes of C# but with no considerable disturbance to the minor temper of the pitch collection. This occurrence is very lucid: it occurs right after a salient whole note A3, on which the baritone sings "Herr" and doubled by the bass clarinet, a bassoon and acontrabassoon. It is the third occurrence of the monosyllabic word "Herr", and as the precedent times, it is uttered with a *mezzo forte* A3.

EXAMPLE 8 compares the ambiance in which the word "Herr" appears for the three first times. When it first appears (m. 14), it is doubled by the bass clarinet, two trombones and tuba, yet surrounded by a rather alien environment. Compared to this occurrence, the second time (m. 20) is even clearer, as the baritone is now doubled by two trombones, tuba, celli and contrabass. However, it is answered by two distant pitch collections: [5,0,3,4,6,8] and [5,6,7,9,0,1,3]. What makes the third time (m. 32) so powerful is indeed the pitch collection that answers and joins the A3 to a sorrowful A minor body of notes. This MPC has thus gained its consequence by a gradual growth, in a process of conditioning. The stanza has presented us so far with a fairly large range of sets and emotions, but this time it seems almost tonal. An examination and comparison of the text in the examined instances shows a similar development. The first appearance is "Nah sind wir, Herr" ("We are near, Lord"); the second time emphasizes the inescapable fate: "Gegriffen schon, Herr" ("Handled already, Lord"); and the third time is the ultimate prospect of union: "als wär der Leib eines jeden von uns dein Leib, Herr." ("as though the body of each of us were your body, Lord."







EXAMPLE 8 – Three first appearances of the word "Herr" at mm. 14, 20, 32, baritone and orchestra (some notes are spelled enharmonically)

The MPC at m. 47, 7th beat, a brief eighth, is one of the shortest MPC occurrences in the composition, yet a powerful one (EXAMPLE 9). It is well illuminated by contrast to its environment by change of orchestration, avoidance of voice leading (when several instruments participate in neighboring chord) and especially, a change of pitch collection. This pure collection of A Ionian is preceded by [9,11,0,1,3,4,5,8] and followed by [0,1,2,3,4,5,7,8,9], detached even further by the horrific noise that is produced by the strings. The MPC appears on the word "war" in "Es war blut" ("It was blood"), as if sweetening the assertion that it was indeed blood, or emphasizing by sharp contrast the terror of the word 'blood'.

A fairly substantiated interpretation to the constant hovering of the MPC – and pitch sets in general – over a constant drone may reflect the hesitant advance to a known, unavoidable target. Six MPCs based on A occur starting at m. 32, at a point where A is also established as the insuperable bass note. This constancy dominates practically three quarters of the stanza and it is beautifully emphasized, again by way of contrast, when the A2 drone is challenged at the very end by the tuba, with an even lower Eb. The question whether the MPCs in the stanza comprise an independent sub-structure should remain open, as the gaps between their appearances are wide and connections among them should be better proven. Their graphic representation may be interpreted as having a logic that is coherent to the structure of the stanza, but it hardly withstands the test of the ear. A thorough and comprehensive analysis of all other tone sets may be needed in order to sustain such conclusions.



Stanza II – The train is leaving

Giorgio Caproni Congedo del viaggiatore cerimonioso

(Complete, original text)

Amici, credo che sia meglio per me [meglio per me] cominciare {a} tirar giù la valigia.
Anche se non so bene l'ora d'arrivo, e neppure conosca quali stazioni precedano la mia, sicuri segni mi dicono, da quanto m'è giunto all'orecchio di questi luoghi, ch'io vi dovrò presto lasciare.

Vogliatemi perdonare quel po' di disturbo che reco. Con voi sono stato lieto dalla partenza, e molto vi sono grato, credetemi, per l'ottima compagnia.

Ancora vorrei conversare a lungo con voi. ma sia. Il luogo del trasferimento lo ignoro. Sento però che vi dovrò ricordare spesso, nella nuova sede, mentre il mio occhio già vede dal finestrino, oltre il fumo umido del nebbione che ci avvolge, rosso il disco della mia stazione.

Chiedo congedo a voi senza potervi nascondere, lieve, una costernazione. Era così bello parlare insieme, seduti di fronte: così bello confondere i volti (fumare, scambiandoci le sigarette), e tutto quel raccontare di noi (quell'inventare facile, nel dire agli altri), fino a poter confessare quanto, anche messi alle strette, mai avremmo osato un istante (per sbaglio) confidare.

(Scusate. È una valigia pesante anche se non contiene gran che: tanto ch'io mi domando perché l'ho recata, e quale aiuto mi potrà dare poi, quando l'avrò con me. Ma pur la debbo portare, non fosse che per seguire l'uso. Lasciatemi, vi prego, passare. Ecco. Ora ch'essa è nel corridoio, mi sento più sciolto. Vogliate scusare).

Dicevo, ch'era bello stare insieme. chiacchierare. Abbiamo avuto qualche diverbio, è naturale. Ci siamo – ed è normale anche questo – odiati su più d'un punto, e frenati soltanto per cortesia. Ma, cos'importa. Sia come sia, torno a dirvi, e di cuore, grazie per l'ottima compagnia.

Congedo a lei, dottore, e alla sua faconda dottrina. Congedo a te, ragazzina smilza, e al tuo lieve afrore di ricreatorio e di prato sul volto, la cui tinta mite è sì lieve spinta. Congedo, o militare (o marinaio! In terra come in cielo ed in mare) alla pace e alla guerra. Ed anche a lei, sacerdote, congedo, che m'ha chiesto s'io (scherzava!) ho avuto in dote di credere al vero Dio. Congedo alla sapienza e congedo all'amore. congedo anche alla religione. Ormai sono a destinazione.

Ora che più forte sento stridere il freno, vi lascio davvero, amici. Addio. Di questo, sono certo: io son giunto alla disperazione calma, senza sgomento. Scendo. Buon proseguimento. Giorgio Caproni

Congedo del viaggiatore cerimonioso

(Edited text of the stanza)

Amici, credo che sia meglio per me tirar giù la valigia.

Anche se non so l'ora d'arrivo.

Vogliatemi

perdonare del disturbo,

che reco.

Vorrei conversare ancora con voi.

Ma ignoro il luogo del trasferimento.

Lasciatemi, vi prego, Lasciatemi passare.

Congedo alla sapienza

all'amore. e alla religione. Ora che più forte sento stridere il freno, vi lascio,

amici.

son giunto. Addio.

Giorgio Caproni

Traveller's ceremonious leave

(English Technical Translation)

Friends, I believe it is

better for me

to pull down the suitcase.

Although I do not know the time of arrival

I would like

Please forgive the disturbance

that I cause.

I would like to talk with you again

But I don't know the location of the transfer

Let me, please, let me pass. Farewell to the wisdom

to the love and to religion.

Now that I feel stronger

the screeching brakes, I leave you,

friends.

I arrived. Goodbye.

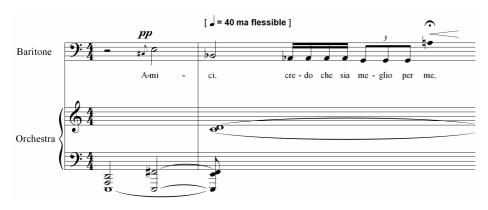
The music of stanza II is very illustrative: the beginning resembles a train leaving the station as the low woodwinds and low brass imitate the heavy groan of wheels at their struggle for momentum, and swift staccato woodwinds emulate high whistling or screeches. A shouted exclamation "tirar giù la valigia" ("pull down the suitcase") is followed by the sounds of a busy station commotion, and from m. 132 a pair of maracas rattle incessantly for the larger part of the stanza, perhaps reproducing the sound of the running wheels.

The three choirs, now set to work after being tacit at stanza I, often carry the most projecting examples of the discussed pitch collections. Even when their harmonic quality does not protrude clearly through the active and dense orchestration, they are assigned to a rather limited inventory of chords, among them quite a few with a modal quality.

Location	Set	Root/chord	Mode	May be affiliated	Purity of occurrence
				with	
109 to 110	[9,11,1,2,4,6]	A	Ionian		Some external tones
113	[9,11,1,3,4,6]	A	Lydian		Some external tones
132, 3 rd beat	[2,6,7,9,0,]	D7sus		Mixolydian	Some external tones
133, 1 st beat	[9,11,0,2,3,7]	A	Locrian #2		Pure
133 to 136	[0,5,8,10]	C7sus4		Mixolydian	Superimposed on
	[2,7,9,11]	G(9)	-	Ionian/Mixolydian	partially external background
	[8,11,1,4]	C#m6		Dorian	
	[0,3,7,9]	Cm6		Dorian	
137	[2,7,9,11,0]	D		Mixolydian	Superimposed on partially external background
138	[0,3,7,9,10/11]	С	Dorian/mel.min.		Some external tones
141, 2 nd beat	[0,1,5,8,10]	F	Aeolian		Some external tones

EXAMPLE 10

Berio chooses to incorporate short samples of the long original text. The baritone enters with what sounds as the 3^{rd} and 5^{th} of an A $_4^6$ major chord (EXAMPLE 11).



EXAMPLE 11 - mm. 110 - 111

It is vanishing in favor of a long F^{\sharp} , on which the baritone's A3 sounds a minor 3^{rd} – quite a tonal environment even if the baritone has wandered in alien surroundings of B^{\flat} , A^{\flat} and G. Another hint of the center quality of A may be found soon again, in m. 113 (

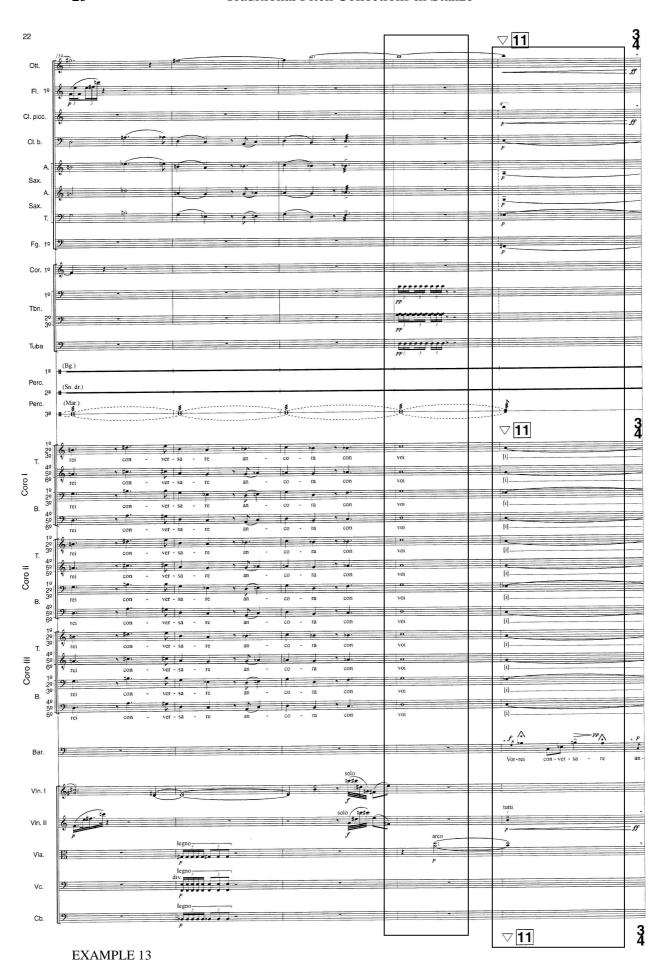
EXAMPLE 12), but all in all, the stanza lacks a solid sense of tonality nor a clear indication of a sub-structure of MPCs.



EXAMPLE 12

Measures 137-138 (EXAMPLE 13) are remarkable for their proportions, as each one of them contain long, undisturbed manifestation of two pitch collections: [2,7,9,11,0] D Mixolydian and [0,3,7,9,10/11] C melodic minor or Dorian. The text within them is: "(choir:) ...voi (baritone:) Vorrei conversare..." meaning "with you, I would like to talk". The combination of the pitch collections of this chord succession is [0,2,3,7,9,10/11], C Dorian or melodic minor, and the context suggests a special treatment of this certain part of the text. In the midst of the commotion, the two measures, especially the lengthy m. 138 with its two fermatas, sound like a yearning prayer or a chant. The human voice of the three choirs add to the warmth and affection of this instance. The occurrence of m. 141, 2nd beat (EXAMPLE 14) follows the same trend and again, in a long sustained chord of the choirs. But in fact, most of the stanza is spotted with the choirs' "warm" chords. The coda-like phrases of m. 174 to the end definitely lack any of these pitch collections and stays loyal to the 20th century dissonant sound.

It can be concluded that the MPCs in this stanza do not necessarily constitute a considerable structure of their own, within the structure of the stanza. Rather, their role is of an expressive color, contributing to the illustrative character of this stanza.





EXAMPLE 14

Stanza III - Promulgations of death

Edoardo Sanguineti (Complete, original text)

e rispondendo ho parlato da un turbine:

sono entrato

nel profondo del mare:

hai camminato nell'abisso dell'abisso?

Guarda, c'è il terrore, in giro, intorno ai suoi denti:

ecco, assorbirà un fiume, tranquillamente:

ma chi racconterà quello che dico?

ho dato un abito alla nuvola: tu non sapevi che dovevi nascere:

ho deposto sapienza

nelle viscere dell'uomo: al gallo, ho dato intelligenza:

ho immesso il nitrito nel collo del cavallo:

rispondi, tu,

che ti interrogherò:

consolida la sua coda come un cedro,

i nervi dei suoi testicoli stanno intrecciati:

io l'ho fatto:

e ho fatto te, io, insieme:

chi può resistere alla mia faccia? della sua faccia chi aprirà le porte?

la sua virtù

è nell'ombelico del suo ventre: non aggiungere niente, se parli:

(Edited text of the stanza)

(English Technical Translation)

Ho parlato da un turbine:

sono entrato

nel profondo del mare:

Guarda, c'è il terrore, intorno ai suoi denti: ecco, assorbirà un fiume, tranquillamente:

ma chi racconterà quello che dico?

ho dato un abito alla nuvola: al gallo, ho dato intelligenza:

ho messo il nitrito nel collo del cavallo:

io l'ho fatto:

e ho fatto te, io, insieme:

rispondi, tu, che ti interrogherò:

chi può resistere alla mia faccia? della sua faccia chi aprirà le porte? non aggiungere altro se parli: I spoke by a whirlwind:

I came

in the deep sea:

Look, there's terror, around his teeth: here, it will absorb a river, quietly

But who will tell what I say?

I gave a dress to the cloud: the rooster, I gave intelligence: I put the nitrite¹⁸ in the horse's neck:

I have done:

and I made you, I, along with:

answer, you, who will question: Who can resist my face?

of his face who will open the door? do not add more if you speak:

¹⁸ Either a salt or an ester of nitrous acid



EXAMPLE 15



EXAMPLE 16

30

The third stanza contains the least number of MPCs. However, the first noticeable appearances of modal pitch collections, in mm. 219 and 220 (EXAMPLE 15), are outstanding in their orchestrational and dynamic treatment. It may almost seem as if this exceptional treatment comes as a compensation for the scarcity of MPCs and moreover, as if the two minutes of preceding music was destined to be mere preparation for it. This is a bit of an exaggeration of course, but the contrast is indeed striking. After a pungent beginning, sown with clusters of chromatic sets, sharp diminuendos and crescendos, appears an MPC of smooth and sweet character: three trombones, tuba and a pizzicato bass construct a progression of three succeeding chords, repeated twice, starting with a Bb6 chord. Three saxophones and contrabassoon play eights in uniform, approaching and passing through the chords. The jazzy sound of this orchestration, with its playful rhythmic transposition, and the softening part of the baritone adds to the contrast and the uniqueness of these measures. The text in these two measures is "quello que dico?" ("what I say?"), sung by the baritone for the second and third time. The MPC's render the repeated question a warm and soothing air, and it is all the more affectionate after the surreal and impersonal images of the preceding text: whirlwind, the deep sea, absorb a river etc. The next recognized occurrence (228, 1st beat) is indeed pure, but brief and lacking distinction to the extent that it should hardly be included in this discussion. The last occurrence (EXAMPLE 16 - 239, 2nd beat to end) exemplifies the effect of the conductor's and/or the tone meister's decision; although the occurrence is tinged with two external notes (oboe B4, English horn E4), that may have created a strong alien interval of 5th, the overall sound is of an Eb Ionian or Mixolydian character. It is rendered by a cluster of the clarinets and the saxophones and the prevailing sound of the trumpet.

As the rest of the MPCs in the composition, the main contributor to this MPC's uniqueness is the contrast to its environment. Examining the concise score and list of sets (EXAMPLE 17, EXAMPLE 18 – the MPCs are highlighted by the thick line frame) shows that the MPC on 239, 2nd beat while tinged with external notes, yet less dense a cluster than its neighboring chords:



EXAMPLE 17

mm. 235 to 241 (the thick vertical line indicates a chromatic cluster)

List of sets in mm. 235 – 241

2.50 0.7 5000					
Measure-beat	Set	External notes			
235 to 237	[7,8,9,10,110,1,2]				
236, 3 rd beat to 238	[7,8,0,1]				
236, off 3 rd beat	[4,5,6,7,8,9,10,11,0,1]				
237, 1 st beat	[twelve-tone]				
238 to 239	[4,5,7,8,9,10,11,0]				
239, 2 nd beat	[3,5,7,8,10,0]	[4,9,1]			
239, 4 th beat	[1,3,5,7,8,10]	[4,9,1]			
240, 3 rd beat	[9,0,1,2,3,5,7,8,9,10,11]				
241, 2 nd beat	[0,1,2,5,7,8,10]				

EXAMPLE 18 – the MPCs are highlighted by the thick line frame

The tone character of the MPC, as well as its unique texture, dynamics and articulation, provide suspense to the text. The MPCs in this stanza function as a leitmotif, emphasizing the warm, personal trait in the text. The main MPCs (219, 2nd)

beat, 220, 1st beat, 239, 2nd beat, EXAMPLE 19) correspond one with another, both textually and musically: Bb6 and Eb Ionian are indeed tonally related pitch collections.

Location	Pitch collection	Text
219, 2 nd beat	[10,2,5,7] Bb6	"quello che dico?" ("what I say?")
220, 1 st beat	[10,2,5,7] Bb6	
239, 2 nd beat	[3,5,7,8,10,0] Eb Ionian/Mixolydian	"rispondi, tu" ("answer, you")

EXAMPLE 19

Stanza IV - Another face of god

Alfred Brendel

The news that in the Tritsch-Tratsch Polka a very cheerful piece of music the news that the Holy Ghost lay lurking was not for some of us entirely unexpected. Confirmation of our suspicions was supplied by a certain Alois, who's razor sharp ear detected in the waltz King's opus two hundred and fourteen detected the unmistakable voice of god Spurred on by Alois We have since found ourselves in brisk two-four polka tempo heading straight for the Almighty blissfully traversing his eighteen or was it thirty three celestial spheres which now one after the other open up before us granting entry to all those dancing in Alois's wake encouraged now and again by a clip on the ear a source of spiritual inspiration to be sure while still keeping strictly, or stritchly in step left right Nothing must disturb the sense of harmony Since both proffered cheeks glow so radiantly why not present one's back as well

on which Alois, trisch-trasch, might crack his whip

Stanza IV is unique in its mischievous and energetic air; the quick tempo, the circuspolka-like rhythms and the jazzy voicing and phrasing, all make the stanza stand out, and convey the text in a relatively light manner. Alfred Brendel's burlesque refers to Johann Strauss' *Tritsch-Tratsch Polka*¹⁹ (op. 214, 1858) and Berio certainly joins that step. Whether jovial, satirical or sardonic, the mentions of the holy entities are treated quite differently of those of the somber, melancholy mood of stanza I. In stanza I the word "Herr" (lord) was colored with a poignant A3 note. Here, in stanza IV, the mention of the holy ghost is adorned with Fellinisque, jolly scampering notes of MPCs of the Lydian mode. It is first heard in mm. 297 to 300 and in m. 301 with Eb Lydian and Db Lydian respectively (EXAMPLE 20, later, at 413 to 417 and 418 to 419, both in Eb Lydian (EXAMPLE 21), and finally at mm. 445 to 453 (EXAMPLE 22), by far the longest occurrence of the entire composition, with a G Lydian. These occurrences are the most extended in the composition.

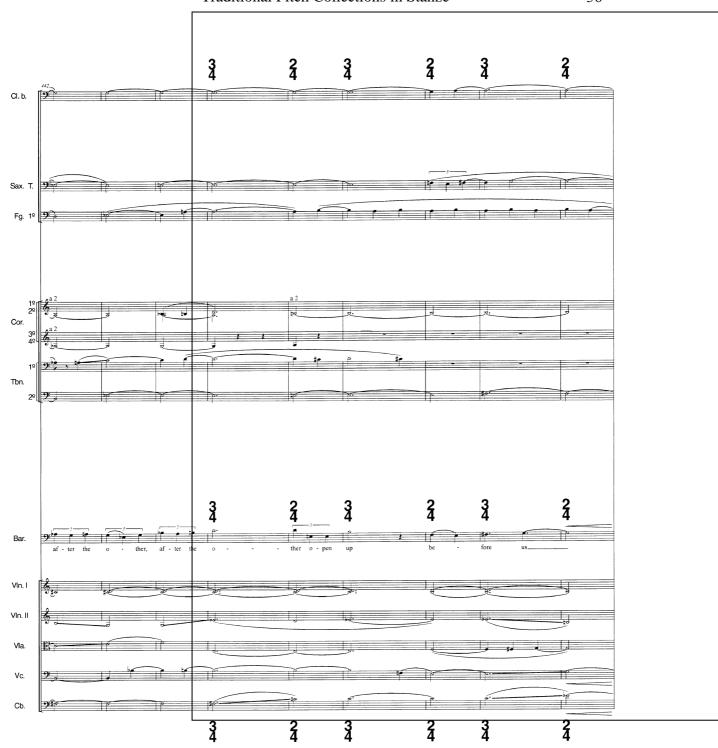
¹⁹ A title which in itself is said to refer to a light subject: the Viennese passion for gossip

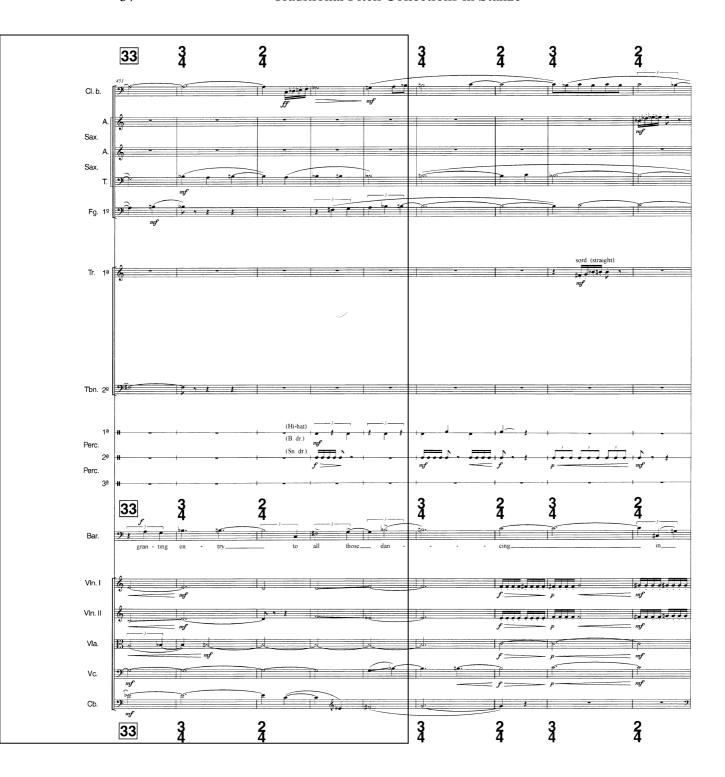


EXAMPLE 20



EXAMPLE 21





The following table (EXAMPLE 23) confirms a constant correlation between the Lydian MPCs and expression of heavenly spirits: "The Holy Ghost", "Ghost", "Almighty", "other open up before us, granting entry to...". The exception in this group of MPCs is the Ab Lydian \$\$5\$, which continues the accompaniment of the word "Almighty" in mm. 420 to 421.

Location	Pitch	Root/chord	Mode	May be affiliated	
	collection			with	
297 to 300	[3,5,7,9,10,2]	Eþ	Lydian		"The Holy Ghost"
301	[1,3,5,7,8,10,0]	Dβ	Lydian		"Ghost"
344 to 347	[2,4,5,9,10,0]	D	Aeolian		"Alois"
348 to 352	[2,4,6,7,9,1]	D	harmonic minor		"razor sharp ear detected"
413 to 417	[3,5,7,9,10,0,2	Eb	Lydian		"straight to the almighty"
418 to 419	[10,0, 2,3,5,9]	ЕЬ	Lydian		"Almigh <u>ty</u> "
420 to 421	[8,10,0,2,4,5]	Αþ	Lydian #5		"Almigh <u>ty</u> "
428 to 429	[4,7,10,2]	E half-dim		Locrian	"his eighteen"
430 to 431	[9,10,2,4,7]	A7sus4 (b9)		Phrygian/	"or was is thirty
		A7303+ (77)		Mixolydian (\$2\$6)	three"
445 to 453	[7,9,11,1,2,4,6]	G	Lydian		"other open up before us, granting entry to"
602 to 603, 1 st beat	[9,11,1,2,4,6]	A	Ionian/Mixolydia n		(No text)

EXAMPLE 23

The rest of the MPCs are D minor – Aeolian and harmonic minor – and an A major mode. The two D minor modes appear in sequence and may be referred to as one long minor-mode occurrence. They accompany the first mention of a character named Alois, who's role is not entirely clear, but following the assumptions just made, may be interpreted as an earthly character.

Stanza V – final recognition

Dan Pagis

Original Hebrew version

דן פגיס

הקרב

בעינים גדולות וזרות ובמצח שבור יתקבצו המתים אל פי הבורות. לאט, מעבר לקו האימה יבואו טורים טורים, ומכי תדהמה ישתקו בפיות פעורים: לא נודע מי ארור מי ברוך בעפר החרוך.

German translation by Anne Birkenhauer

Mit großen und fremden Augen und gebrochener Stim werden die Toten sich versammeln am Rand der Gräben. Langsam von jenseits der Linie des Schreckens her werden sie kommen, Reihe für Reihe und von Ensetzen geschlagen mit aufgerißenen Mündem schweigen: Wer weiß, wer verflucht und wer gesegnet im verbrannten Staub. English translation by Ittai Rosenbaum

With large and foreign eyes
And with broken forehead
At the edges of the trenches they shall gather, the dead.
Slowly, beyond the line of terror
Columns, columns they'll come forth,
And stricken with horror.
Agape, silent they will fall:
It is unknown who's cursed, who's blessed
In the scorched earth.

In contrast with the extravagant stanza IV, stanza V is characterized by slow and gradual conception of long chords, and a slow tempo (\downarrow = 68) that reminds that of the opening stanza. The stanza is saturated with many fragments of MPCs that are not substantial enough to be defined as considerable occurrences. Moreover, these fragments are numerous enough to make any considerable MPC unexceptional. It is best exemplified in m. 628 (EXAMPLE 24), as the choir and baritone outline a seemingly Edim⁶, resolving into a first inversion of Eb. But a closer look into the score reveals too many external notes, notably the C3 of the baritone in 629, 1st beat.



EXAMPLE 24

Most of the MPCs are of the minor modes, and the major modes appear only at the closing section (mm. 660 to 674), after the brief f explosion at mm. 654 – 659. Even then, they are not conspicuous due to the circumstances just mentioned.

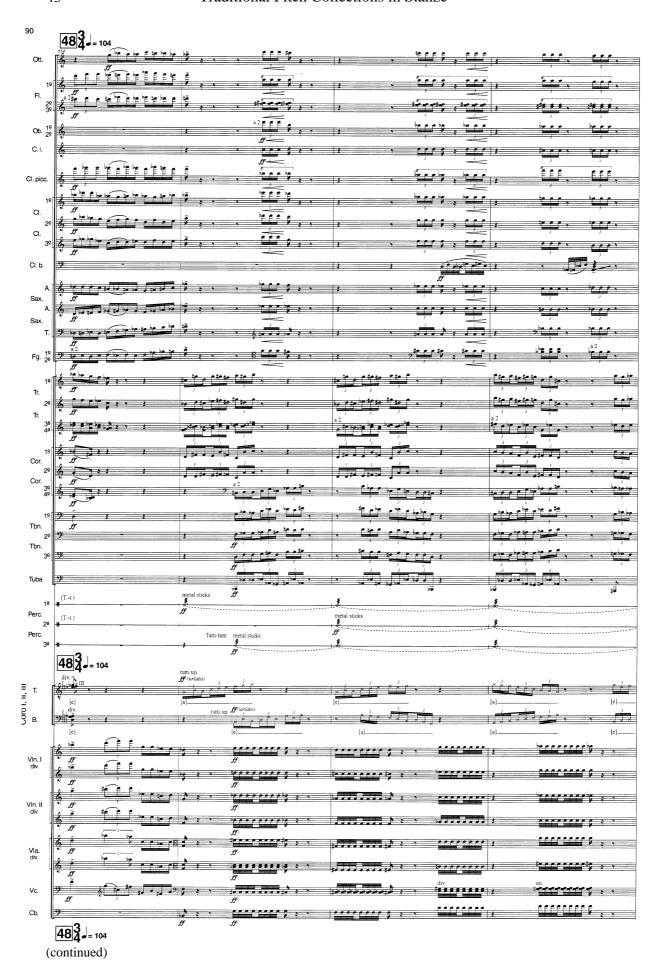
Location	Pitch collection	Root/chord	Mode	May be affiliated with	Purity of occurrence
611, 1 st beat	[7,9,10,2]	Gm9		minor	Pure
611, 4 th beat	[3,5,6,9,10,1]	ЕЬ	Mi Shebeirach		pure
612	[8,10,11,1,3,5,7]	Αþ	melodic minor		Pure
615, 1 st beat to 615, 3 rd beat	[3,5,6,9,11,1]	Eρ	Locrian #2		Some external tones
648	[0,2,3,7,9,11]	С	melodic minor		Pure (transitory Bb4, Db5 in t.sx)
649	[5,7,8,10,0,2,3]	F	Mi Shebeirach		Pure
651, 2 nd beat	[10,1/2,5,7]	Bbm6 or Bb6		Dorian or major	Superimposed on external background
653, 3 rd beat	[0,3,6,8,9]	Αþ		Mixolydian 2	Some external tones
662, 4 th beat	[3,7,9,10,1]	Εb	Lydian 67		Some external tones

As in the whole work, connections between the MPCs are not clear cut, but they do exist to an extent that should be mentioned and recognized. First, the roots of the modes are quite close in their relative placement on the circle of fifths, notably (and absolutely audible) C, F and Bb in mm. 648 – 651 (EXAMPLE 25). Second, the color of the modes is gradually evolving: starting from minor modes, with slight deviation of the Locrian \$2, into an ambiguous Dorian or major in m. 651, and finally settling on two clearly major modes.

Eight of the nine MPCs in the stanza are executed by a choir, rendering them, and the stanza in general, an air of a traditional choral sound. In the context of this particular text and tempo, these instances resemble fragments of slow movements of sacred choral music, particularly of a Requiem. Following that allusion, the abrupt transition from the solemn mm. 648 to 653 to the tempestuous mm. 654 – 659 (EXAMPLE 25) resembles the Requiem's transition from a Kyrie into a Dies Irae. This is a fairly simple associative link to traditional music but highly appropriate to the closing stanza; an episode of a somber, realistic and macabre recognition.



EXAMPLE 25



Summary

Stanze's modal pitch collections are defined and traced in this study according to certain exclusive characteristics: the intervalic features that distinguish them from other pitch collections in this work. Their uniqueness – having the intervalic quality of the traditional modes – evokes a distinctive emotional attitude and a certain cultural and stylistic association. Yet, the MPCs are scattered, and as shown in the Table of Occurrences, usually glimmer for short instances, separated one from the other by large spans of time. However, despite their spacious distribution, there is a consistency and homogeneity in their presence; the inventory of MPCs in each stanza is limited to several modes, sometimes limited just to several pseudo-tonic-roots. Also, their relations to the text is obviously intentional both in their placement and their constitution.

The implications of combining disparate elements within a single work is of methodological importance²⁰. An analysis facilitates the unraveling of a structure, and intends to narrate a conceptual map to which one can relate and orient to. Exploring the connections between disparate elements makes a prominent contribution to the analytical process, especially in an eclectic musical environment. The examination of the disparate MPCs in Stanze serves as a vehicle for approaching Berio's treatment of a conceptual subject; in this case, the subject of death. It does so by stressing a certain predisposed "understanding" between the listener and the composer: Berio is using a compositional element, the Modal Pitch Collection, to which the listener may have a certain, specific attitude. Such statement may seem a triviality, as certainly a listener's knowledge and affiliation with any component of the composer's musical language is fundamental for understanding and relating to the composition. But it is not that obvious in music that is defined as avantgarde, and created by a composer known for experimentalism and sophistication. In *Stanze*, the disparate MPCs, as they stand out in their surroundings, challenge the listener's affiliation to and association with the traditional sound and its cultural charge. The sound of the MPCs makes them function as anchors of relative traditionality among the sea of pitch collections. Their shared cultural trait suggests sub-structures within each stanza, and indeed have been

²⁰ Losada 2009

demonstrated to exist in stanzas I, III, IV and V. The sound of the MPCs is a layer of audible stimulation, created by the constant and consistent appearances of the MPCs. Its effect, even if not that of a decisive structure, is intriguing to such an extent, that it should be highlighted and studied, raising new, additional questions rather than provide a conclusive answer.

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