On the Circumstances Surrounding Loss of Bifolios from the Finale of Bruckner's Ninth Symphony ¹

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Regular readers of this Journal likely know that, although Anton Bruckner did not live to complete the Finale for his Ninth symphony, significant material - sketches, partially worked-out pages, and fully scored pages complete with rests - belonging to the Ninth symphony's Finale exists in various libraries and private hands; they are also likely know that additional material, which once existed, is now missing. Despite this, tedious scholarship has made it possible to recoup much of this lost material, as evidenced by the various Finale reconstructions and completions which now exist. On the other hand, very little is known about the circumstances surrounding loss of these missing Finale bifolios.

The most common explanation for the loss of Finale bifolios - some variation of '*stolen* by souvenir hunters, *or scattered*, due to the negligence of Bruckner's executor and some of his students'² - reflects the general chaos surrounding Bruckner's death, when contemporary sources note 'important material was lost, among it certain bifolios of the well-advanced score, which lay scattered around his apartment'³. In assessing the credibility of this 'stolen or scattered' explanation, we interpret it to mean bifolios were lost or otherwise taken as the result of random action, *without any particular regard for the music they contained*; this permits our use of familiar tools from statistical analysis in obtaining a *likelihood* of randomness, which we similarly interpret as the 'stolen or scattered' explanation likelihood of correctness. Furthermore, since randomness also implies every bifolio was equally likely to be stolen or lost, we can establish the likelihood of Finale bifolios⁴. Lastly, since our interpretation implies the bifolios were lost or otherwise taken without regard for the music existing Finale bifolios⁴. Lastly, since our interpretation implies the bifolios were lost or otherwise taken without regard for the music existing Finale bifolios contain.

The most helpful statistical analysis tools for our purposes use the *pattern* of events (e.g. the pattern of Heads or Tails in tosses of a coin) in assessing their randomness. For our assessment of Finale bifolios being lost at random, we should ideally use the pattern of sequentially ordered Surviving and Missing Finale bifolios as they existed immediately prior to Bruckner's death; however, Bruckner kept no document showing which Finale bifolios he had completed, from which we can determine which Finale bifolios are Missing. Furthermore, his habitual reuse of existing page numbers as he generated new replacement bifolios, without excising or otherwise cancelling page numbers of the replaced bifolio, makes it difficult to establish even which Surviving bifolios may have actually belonged to this last Finale version. Fortunately, through the happy confluence of Bruckner's meticulous habit of counting and numbering things together with an editorial decision he made earlier upon completing a significant portion of the Finale, there does exist a particular, *representative* group of Finale bifolios, from whose Surviving bifolios we can recover that group's pattern of Missing bifolios and likelihood of randomness.

Following his usual compositional pattern and having generated some thirty-plus sequentially numbered Finale bifolios, Bruckner paused and decided to expand the existing 2nd Finale bifolio and replace it with two completely new bifolios⁵. More significantly for our purposes, he (more likely his secretary Meißner) then *renumbered* each subsequent bifolio by excising its existing page number and replacing it with a new page number one larger than its previous value⁶. By associating *gaps* in the page sequence of the Surviving renumbered Finale bifolios with Missing renumbered Finale bifolios, we deduce the *pattern* of Surviving and

¹ The reader is fore-warned that we discuss only the question of *how* these Finale bifolios may originally have become lost without (as properly noted by John Phillips in a private communication) presenting any new information relating to their actual recovery.

² J. A. Phillips (ed.) – IX. Symphonie D-Moll Finale (Unvollendet) – Musikwissenschaftlicher Verlag, Wien 1994 pg. xxi.

³ J. A. Phillips – IX. Symphonie D-Moll finale Faksimile-Ausgabe – (1996) Musikwissenschaftlicher Verlag, Wein 1996 pg. xiii.

⁴ While our confidence in the randomness assessment increases in proportion to the number of bifolios in the representative group, the critical issue is that group's *accuracy* in describing exactly which bifolios are Surviving and which are Missing.

⁵ While it has been long believed that this renumbering occurred in the Spring of 1896 but, as noted by Phillips (private communication), this renumbering may have occurred earlier when 'having drafted the score at least as far as the last surviving bifolio 31/"32" or perhaps advanced further into the coda, ... Bruckner may have paused to deliberate on the further course of the coda'.

⁶ These renumbered Finale bifolios are unique; there is no evidence of Bruckner repeating this excision/renumbering process when he subsequently replaced one of these renumbered bifolios; instead, he simply copied that bifolio's renumbered value.

Missing renumbered Finale bifolios⁷ (with an obvious notation) as

We then assess the renumbered Finale Bifolios' likelihood of randomness from this pattern of their Surviving and Missing members using a simple, robust test⁸ requiring only the total number of renumbered Finale bifolios and the number of runs (blocks of consecutive identical descriptors, **S** or **M**) in this pattern; thus, with twenty Surviving and nine Missing bifolios partitioned into sixteen runs, we obtain the one-chance-in-six likelihood of randomness⁹ - a *representative* value for the likelihood of random action (the interpreted likelihood for the stolen or scattered explanation) causing all Finale bifolio loss.

More complicated statistical methods¹⁰, addressing the relatively regular occurrence of Missing bifolios previously noted by Carragan¹¹ and the frequent large groupings of the Surviving bifolios¹², give comparable likelihoods of randomness¹³. Although these results would appear to reject random action, in the arcane world of statistical analysis (where one-chance-in-twenty or less is commonly accepted as necessary to reject randomness) we should, instead, interpret them as a *modest affirmation* of random action - hence the *'stolen or scattered'* explanation - being the cause of Missing Finale bifolio loss; the reader may, of course, choose a different interpretation of these results.

Those unconvinced of the 'stolen or scattered' explanation's correctness as the cause of Missing bifolios may find an interesting alternative within the remarkable correlation between the Missing bifolios and the optional *vi-de* cuts¹⁴, introduced by Bruckner prior to the re-numbering and documented on the Surviving bifolio pages, depicted here.

⁷ In generating this pattern of Missing and Surviving renumbered Finale bifolios, we have used the following conventions:

^{1.} Because we are interested in the events *causing the loss* of Missing bifolios, rather than in *reconstructing the music they contained*, we identify a renumbered bifolio as Missing *only* if it corresponds to a gap in the sequence of Surviving renumbered bifolios; we furthermore count every existing renumbered bifolio as a Surviving (not lost) bifolio even if there is evidence Bruckner later replaced it with another (un-renumbered) bifolio.

^{2.} We specifically exclude the existing bifolios numbered 2 and 3, even though they are likely those generated to replace the old bifolio number 2, because we *cannot be certain* that these (existing) bifolios do not replace the (now lost) bifolios actually generated at the time of renumbering.

^{3.} We specifically exclude the existence of any Missing bifolio with a renumbered value greater than that of the last known Surviving renumbered bifolio.

⁸ F. S. Swed & C. Eisenhart – Tables for Testing Randomness of Grouping in a Sequence of Alternatives – Ann. Math. Stat. Vol. 14 No. 1 (1943) pp.66-87.

⁹ Defined as the fraction of all possible arrangements containing nineteen Surviving and nine Missing renumbered Finale bifolios having at least the sixteen observed runs. This likelihood of randomness is modestly sensitive to changes in the definition of renumbered Finale bifolios; it would decrease to one-chance-in-nine if we were to include bifolios 2E and 3E as Surviving renumbered Finale bifolios while presuming the first to be Missing. On the other hand, the likelihood of randomness would increase slightly to one-chance-in-five were we to presume a single Missing renumbered Final bifolio following the last Surviving bifolio; however, it would again fall to one-chance-in-eight were we simultaneously to include 2E and 3E as Surviving bifolios and the first bifolio as Missing. Presuming the existence of two or more Missing bifolios following the last Surviving bifolio would increase the likelihood of randomness significantly.

¹⁰ These methods require knowing the probability of a Finale bifolio being lost at random, something we can only *infer* from the (limited size) observed pattern of Missing and Surviving renumbered Finale bifolios.

¹¹ Private communication.

¹² Especially the intact preservation of fully-scored bifolios related to the Chorale exposition, bifolios which Bruckner seems to have maintained almost untouched from their inception.

¹³ Presuming a one-chance-in-three probability of a particular Final bifolio being lost due to random action, we find (see M. Muselli – Simple Expressions for Success Runs Distributions in Bernoulli Trials – *Instituto per I Circuiti Elettronici Consiglio Naxionale dell Ricerche via De Marini, 6 – 16149 Genova, Italy*) a one-chance-in-five likelihood of observing three runs containing four or more Surviving bifolios and (see: W. Feller – *An Introduction to Probability Theory and Its Applications* Vol.1 2nd Ed. John Wiley & Sons, New York, London, Sydney 1965 pg. 301) a two-chances-in-five likelihood of a run containing two, but not three, Missing bifolios in the pattern of twenty nine Surviving and Missing bifolios.

¹⁴ Bruckner's purpose in introducing these optional *vi-de* cuts is unclear. One possibility suggests a provisional plan for using a 'shortened' version of the Finale Development as a transition to a similarly 'shortened' *Te Deum* in the event he was unable to complete a fully instrumental Finale (see C. Howie *et. al. (ed.) – Perspectives on Anton Bruckner* Ashgate, Aldershot-Burlington USA-Singapore-Sydney (2001) pg. 276). Since these *vi-de* cuts would also have impacted the Development, Bruckner might have set bifolios containing these cuts aside, as a reminder to himself, in a separate pile where they remained until his death, whence 'perhaps under the assumption on Meißner's or even Kathi Kachelmeyer's part, that they had been discarded, and were therefore suitable material for 'souvenirage' (private communication from John Phillips).

13E/"14"	[14/"15"]	15D/"16"	16C/"17"
SSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSS	xxxxxxxxxxxxxxxx	SSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSS	SSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSS
- ? -	222222222222222222	22222222222	

17D/"18"	18D/"19"	[19/"20"]	20F/"21"
SSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSS	SSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSS	xxxxxxxxxxxxxxxx	SSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSS
	CCC	222222222222222222222222222222222222222	2222222222222222222

21D/"22"	22D/"23"	23D/"24"	[24/"25"]
SSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSS	SSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSS	SSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSS	*****
00000		000000000000000000000000000000000000000	- ? -
		CCCCCCCCC	000000000000000000000000000000000000000

25D/"26"	26F/"27"	[27/"28"]	28E/"29"
SSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSS	SSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSS	xxxxxxxxxxxxxxxx	SSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSS
	CCCC	- ? -	
ccccccc			

29E/"30"	[30/"31"]	31E/"32"	
SSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSS	xxxxxxxxxxxxxxxxx	SSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSS	

Each box identifies a Finale Development bifolio using a standard notation: The first number identifies the original bifolio page, while the second is its renumbered value. Entries enclosed within brackets indicate Missing bifolios, while those including a letter indicating the paper type (unimportant for our analysis) indicate Surviving bifolios. The letters 's' within the Surviving bifolios and 'x' within Missing bifolios identify individual measures¹⁵; the letters 'c' shown below some boxes identify measures within Bruckner's *vi-de* cuts, while '?' denotes *unknown*.

The first Cut begins¹⁶ on a no longer existent Bifolio 13 and ends after measure 12 on Surviving bifolio 15D/"16". The second Cut begins at measure 13 of Surviving bifolio 18D/"19" and continues through measure 6 of Surviving bifolio 21D/"22". The third Cut begins at measure 7 of Surviving bifolio 23D/"24" and ends somewhere¹⁷ within Missing Bifolio [24/"25"] since there is no indication of an end anywhere in the Surviving bifolios prior to the next cut; however, an earlier version of this Cut (indicated by italic 'c'), but later discarded by Bruckner, continues unambiguously through measure 8 of Surviving bifolio 25D/"26". The fourth Cut begin at measure 13 of Surviving bifolio 26F/"27" and likely ends somewhere¹⁸ within Missing bifolio [27/"28"]. Curiously, this tabulation also shows the Missing bifolios generally¹⁹ contain measures which should be unneeded were Bruckner's original (longer) *vi-de* cuts observed, with none²⁰ of the Surviving bifolios exclusively containing superfluous measures were these same *vi-de* cuts observed²¹.

¹⁵ Following Phillips, this Table presumes each Missing bifolio to contain sixteen measures.

¹⁶ as noted by Bruckner on Surviving bifolio 15D/"16".

¹⁷ Phillips postulates after measure 10.

¹⁸ Phillips postulates after measure 12.

¹⁹ There are two major exceptions: First, Cut-4 presumably ends within Missing bifolio [27/"28"]. Second, we can associate no Cut with Missing bifolio [30/"31"].

²⁰ While Bifolio 20F/"21" certainly contains music unneeded were Cut-2 to be observed, this particular bifolio was apparently not among the Finale bifolios given to Josef Schalk shortly after Bruckner's dearth and recovered from his estate in 1939; it was, instead, part of a collection sold by Löwe's widow in 1927 (see J. A. Phillips Ref. 1 - pg. 139 for a further discussion of this curious situation).

²¹ Indeed, upon mimicking the plan used by Bruckner in the Adagio by repeating the first few measures of the Exposition to improvise a beginning for the Development and observing Bruckner's original (longer) *vi-de* Cut-3, it is possible, with one minor discontinuity (a few missing measures between the unknown end of Cut-4 within Missing bifolio [27/"28"] and the beginning of Surviving bifolio 28E/"29"), to recover all of this 'shortened' Development through the reintroduction of the Chorale theme in Surviving bifolio 29E/"30". The curious can explore this further by piecing together appropriate portions of the Surviving bifolios included as an addendum on Talmi's 1985 Oslo Philharmonic (Chandos or Musical Heritage) recording of Carragan's completion; e.g. after playing a few measures of the initial Exposition, continue with the four consecutive intervals containing (approximate) CD time-mark intervals (8:06 – 9:43), (10:33 – 11:30), (12:55 – 13:53), and (14:12 – 15:04).

BY SIMPLY documenting the uncertainties which still exist about *how* the Missing Finale bifolios became lost, I have sought to direct readers toward re-examining alternative ways in which the bifolios went missing, possibly leading to new avenues for their recovery. This explains my emphasis on the renumbered Finale bifolios and their statistical significance: They are the only basis from which we can obtain an *unambiguous* pattern of Surviving and Missing Finale bifolios, thereby providing a representative value for the likelihood of random action (the *interpreted* likelihood for the 'stolen or scattered' explanation) causing all Finale bifolio loss.

It is also my reason for calling attention to the curious connection between Bruckner's *vi-de* cuts and the Missing Finale bifolios. As one possibility, had Bruckner separated them for some reason, the question of *when* might have some bearing on their ultimate disposition; e.g. should we be seeking a bundle of (rather than individually scattered) Missing Finale bifolios in some unlikely repository?