

PIPE SCALES

Arthur Blair Betty

75 mm
3"

Lahn
Quintaton 16' Church

Herbst

Builder

Haupt

Division

Year

W.P.

Stop:	Ratio:									
φ:	C	F	C	F	C	F	C	F	C	F
MW:					12	14.3				
CU:					15					
					7					
					0.6					

metal thickness

Stop:	Ratio:									
φ:	C	F	C	F	C	F	C	F	C	F
MW:	132.1		84		50		26		14.9	
CU:	100		63		36		20		10	
	29		19		10		8		3.5	
	1.5		1.2		1		0.5		0.3	

Stop:	Ratio:									
φ:	C	F	C	F	C	F	C	F	C	F
MW:			56.1		33.8/29		19.3/16.1		13.8/11.6	
CU:			40		22		13		10	
			15		9		6		4	
			1		0.8		0.8		0.5	

Stop:	Ratio:									
φ:	C	F	C	F	C	F	C	F	C	F
MW:	100		64.5		41.2		22.5		16.8	
CU:	80		50		32		18		14	
	40		20		12		7		4	
	1		0.8		0.6		0.6		0.6	

Stop:	Ratio:									
φ:	C	F	C	F	C	F	C	F	C	F
MW:	98.3		59.6		33.8		19.3		12.2	
CU:			48		32		15		10	
			15		8		7		3	
			0.8		0.8		0.5		0.5	

Stop:	Ratio:									
φ:	C	F	C	F	C	F	C	F	C	F
MW:	80		45.1		25.1		14.2		10.6	
CU:	63		37		20		11		8	
	15		12		5		3		2	
	1		0.8		0.3		0.4		0.4	

Stop:	Ratio:									
φ:	C	F	C	F	C	F	C	F	C	F
MW:	59.6		35.4		21.9		14.2			
CU:	44		26		17		12			
	23		16		9		3			
	1		0.8		0.8		0.7			

Arther Blair Batty

Church	Builder	Division	Year	W.P.	
Step: Nasut 3' (Rohrfl.)	Ratio:				
♯: C 51.3	F 29	c' 19.7	f' 13.5	f''	f'''
MW: 39	21	15	10		
CU: 17	11	7	3		
: 0.8	0.8	0.5	0.5		
Step: Superoctave 2'	Ratio:				
♯: C 48.4	F 27.1	c' 14.2	f' 10.3	f'' 7.7	f'''
MW: 37	21	12	8	6	
CU: 13	6	3	2	1.8	
: 0.8	0.8	0.5	0.5	0.4	
Step: Mixture 1' IV	Ratio:				
♯: C	F	c'	f'	f''	f'''
MW:					
CU:					
Step: Trumpet 8'	Ratio:				
♯: C 21910	F 880	c' 440	f' 190	f'' 62	f'''
Sound 16	12	7	5	4	
Step:	Ratio:				
♯: C	F	c'	f'	f''	f'''
MW:					
CU:					
Step:	Ratio:				
♯: C	F	c'	f'	f''	f'''
MW:					
CU:					
Step:	Ratio:				
♯: C	F	c'	f'	f''	f'''
MW:					
CU:					

Arthur Blair Betty

Schlosskirche in Lahm im Itz

Heinrich Gottlieb Hevbst

Oberwerk

1728-32

75

Church

Builder

Division

Year

W.P.

Stop: Quintation 8' Ratio: _____

Ratio:

φ :	83.9	54.8	33.2	18.4	12.9
MW:	65 MW	40	24	14	9
CU:	121	13	8	5	2
:	1	1	1	0.8	0.8

Stop: Gemshorn 8' Ratio: _____

Ratio:

φ	14.9/43.5	87.1/32.3	54.8/24.2	33.0/17.7	24.2/14.5		
MW		63	40	23	17		
CU		16	11	6	4		
		1	8	6	4		

Step: Principal 4 Ratio:

Ratio :

	8309	4804	2707	1805	11
MW	70	37	22	12	8
CU	18	12	6	4	205
	1	07	05	04	04

Step: I have to treat it Ratio:

Ratio:

	67.7/22.6	40.3/17.7	25.8/16.7	14.3/12.9	9.7		
MW	53	34	22	14	7		
CU	14	11	7	4	2		
	1	0.8	0.8	0.6	0.5		

Step: Wald tests? Ratio:

Ratio:

	f	f'	f''	f'''	$f^{(4)}$	$f^{(5)}$
Σ	5106	2906	1608	1408	9	
NRW	39	22	12	8	5	
CU	13	8	3	2	1	
	1	1	5	5	1/4	

Stam: Kon Hammond Date: _____

Ratio:

	1000	Resonance length	690	330	133	60	
HW	12	tongue width	10	9	7	6	
CU							

Step: _____ Date: _____

Ratio:

[illegible]

PIPE SCALES

Arthur Blair Betty

	Church	Builder	Division	Year	W.P.
Stop:	Sesquialtera $1\frac{1}{3} - 2\frac{2}{3} @ 9$ Ratio:				
♯	C	F	C	F	C
MW:	33.8	28	20.6	14	12.9
CU:	9	8	5	2.5	
	.8	.8	.6	.4	
Stop:	Sesq. $4/3 - 1\frac{1}{3} @ C^\circ$ Ratio:				
♯	C	F	C	F	C
MW:			14.5	11	10.3
CU:			3.5	3	.3
			.5		
Stop:	Cymbal III Ratio:				
♯	C	F	C	F	C
MW:					
CU:					
Stop:	Cymbal III Ratio:				
♯	C	F	C	F	C
MW:					
CU:					
Stop:	Ratio:				
♯	C	F	C	F	C
MW:			11.6	9	12.2
CU:			3.8	3	3
			.4	.4	.4
Stop:	Ratio:				
♯	C	F	C	F	C
MW:			10.3	8	10.3
CU:			2	2	2
			.3	.4	.3
Stop:	Ratio:				
♯	C	F	C	F	C
MW:					
CU:					

Arther Blair Betty

Lahn

Petal

3'

Church

Builder

Division

Year

W.P.

Stop: Principal 8' Ratio: _____

ϕ : C F k k' k'' k''' k'''' k''''' k''''''
 MW :
 CU :
 :

Stop: Kialon bass 16' Ratio:

[illegible]

Step: Octave 4 Ratio: _____

[illegible]

Step: Mixture V 2' Ratio:

	I 46.7	II 32.9	III 23.2	IV 19.3	V 14.8		
MW	37	26	14	15	7		
CU	11	8	7	4	4		
	1	28	0.6	0.5	0.4		

Step: _____ Ratio: _____

	27.7	19.3	15.5	12.2	10.3
NEW	22	15	12	10	8
CU	7	4	4	2.5	3
	0.6	0.6	0.5	0.4	0.4

Step: Substeps 16' Ratio: _____

	270x285	180x200	100x170					
AW	235	150	70					
CU	57	35	25					
	15	14	11					

Step: Quintabross class 12' Ratio:

	150x100	100x110	70x80						
NRV	117	80	48						
CU	45	28	14						
	13	10	10						

Arther Blair Batty

Red
Division

Year

W.P.

Church

Builder

Division

Year

W.P.

	ϕ	ϕ'	ϕ''	ϕ'''	ϕ^{IV}	ϕ^V	ϕ^VI	ϕ^VII	ϕ^VIII	ϕ^IX	ϕ^{X}
MW:	75	50	35								
CU:	36	25	18								
:	10	8	8								

Handwritten musical notation for the first system of 'The Rose Tree'. The notation is on a five-line staff. The first measure contains a treble clef, a key signature of one sharp (F#), and a common time signature (C). The melody begins with a quarter note on G4, followed by a quarter note on A4, and a quarter note on B4. The second measure contains a quarter note on C5, a quarter note on B4, and a quarter note on A4. The third measure contains a quarter note on G4, a quarter note on F#4, and a quarter note on E4. The fourth measure contains a quarter note on D4, a quarter note on C4, and a quarter note on B3. The fifth measure contains a quarter note on A3, a quarter note on G3, and a quarter note on F#3. The sixth measure contains a quarter note on E3, a quarter note on D3, and a quarter note on C3. The seventh measure contains a quarter note on B2, a quarter note on A2, and a quarter note on G2. The eighth measure contains a quarter note on F#2, a quarter note on E2, and a quarter note on D2. The ninth measure contains a quarter note on C2, a quarter note on B1, and a quarter note on A1. The tenth measure contains a quarter note on G1, a quarter note on F#1, and a quarter note on E1. The eleventh measure contains a quarter note on D1, a quarter note on C1, and a quarter note on B0. The twelfth measure contains a quarter note on A0, a quarter note on G0, and a quarter note on F#0. The thirteenth measure contains a quarter note on E0, a quarter note on D0, and a quarter note on C0. The fourteenth measure contains a quarter note on B0, a quarter note on A0, and a quarter note on G0. The fifteenth measure contains a quarter note on F#0, a quarter note on E0, and a quarter note on D0. The sixteenth measure contains a quarter note on C0, a quarter note on B0, and a quarter note on A0. The seventeenth measure contains a quarter note on G0, a quarter note on F#0, and a quarter note on E0. The eighteenth measure contains a quarter note on D0, a quarter note on C0, and a quarter note on B0. The nineteenth measure contains a quarter note on A0, a quarter note on G0, and a quarter note on F#0. The twentieth measure contains a quarter note on E0, a quarter note on D0, and a quarter note on C0. The notation is written in black ink on a white background.

Handwritten musical notation for the first system of 'The Rose Tree'. The notation is on a three-staff system. The top staff is labeled 'N.W.' and the bottom staff is labeled 'C.U.'. The music is in 2/4 time, indicated by a '2' over a '4' at the beginning. The key signature has one sharp (F#), indicated by a sharp sign and the letter 'F' on the top line of the first staff. The melody consists of a series of eighth notes: F#4, A4, B4, C5, B4, A4, G#4, F#4, E4, D4, C4. The bottom staff has a single note, C3, at the beginning of the first measure.

The first system of musical notation for 'The Song of the Lark' features a treble clef and a key signature of one sharp (F#). The melody is written on a five-line staff. The notes are: C4 (quarter), E4 (quarter), C4 (quarter), E4 (quarter), C#4 (quarter), F#4 (quarter), C4 (quarter), E4 (quarter), C4 (quarter), E4 (quarter), C4 (quarter), and F#4 (quarter). The notes are grouped by vertical bar lines.

[illegible]