

The Mini Twig

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Extended Techniques for Piccolo

Doctoral Dissertation Presentation
by Gillian Sheppard

Why the Piccolo?

- Gained popularity as a solo instrument in the 20th century when people realized it could do more than bird sounds and the screaming high register.
- Redefined: once an orchestral coloratura, now a virtuosic contemporary soloist.
- Impetus for *The Modern Twig*? A distinct lack of literature on extended techniques for piccolo; and a desire for one, comprehensive resource.

The Rise of the Piccolo

Can be attributed to:

- Players who championed the instrument.
- Composers who tried writing for it.
- Musical organizations who promoted or commissioned new works:
 - The Dutch Piccolo Project (Ilonka Kollhoff)
 - Micro-Commissioning Project (Jennifer Gunn, CSO Solo Piccolo)
 - National Flute Association Piccolo Artist Competition & Piccolo Committee (12+ commissions for solo piccolo plus accompanied, chamber, and concerto settings)



Flutes in 19th Century Orchestra

- Beethoven is the first to use piccolo in *Symphony No. 5* (1804-08) and *Symphony No. 6* (1802-08).
- Berlioz features the piccolo doing glissandi in mvt. 5 of *Symphonie Fantastique* (1812).
- Debussy's iconic solo in *Prélude à l'après-midi d'un faune* (1894) was a catalyst for a new expressive flute sound.
- Ravel and Stravinsky showcase the piccolo & alto flutes.

Extended Technique Guides

Pitch

The instability of pitch has always been the piccolo's biggest liability, but in contemporary music that flexibility becomes an asset.

Microtones: standard Boehm closed hole piccolo can play over 240 microtones.

Microtonal Trills & Tremolos: 42 fingerings included, somewhat limited by closed hole keys.

Bisbigliando: Also known as Timbral Trills, 53 fingerings included.

Pitch Bend & Glissando: Due to lack of open holes, it is much more difficult to do a true bend of glissando. Ascending glissandi are facilitated by slowly lifting a key which is easier to control than descending via slowly closing a key. Embouchure adjustments (rolling in/out) can provide large bends in intonation.

		<p>MT001 <i>ppp - mp</i></p> <p>Variations of the C# can be played by placing the little finger of the right hand over the open end of the piccolo. Pitch precision is extremely difficult and a stable pitch cannot be produced rapidly so it is advisable that the approach to this note leaves time for the player to find the correct placement. Advanced preparation will be required to locate the proper placement on their instrument.</p>
		<p>MT012 <i>ppp +</i></p>
		<p>MT022 <i>p +</i></p> <p>Very difficult fingering combination: the first trill key should be played by leaning on it with the middle finger, the second trill key should be played by leaning on it with the fourth finger.</p>

Timbre

Malleability of sound on piccolo allows for more apparent timbral changes than on other flutes.

Alternate Fingering: Many alternate fingerings enable more stable pitch or easier technical facility on the instrument. Jan Gippo's *The Complete Piccolo* is an excellent resource.

Whistle Tones: most under-utilized technique! 24 different viable fingered pitches.

Aeolian Sounds: Wind Sounds or residual sounds; pitched on fingering.

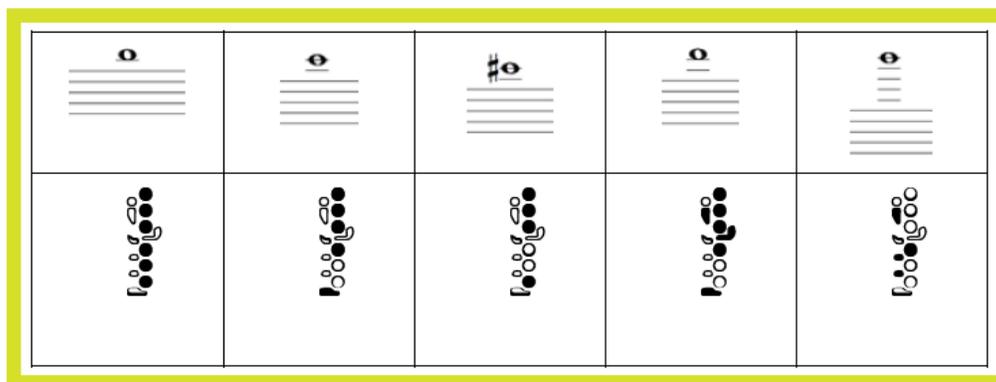
(Timbre continued...)

Sing & Play: Highly effective on piccolo.

Smorzato: "Lip vibrato," jaw movement may be useful because the embouchure is already very small and susceptible to buzzing.

Harmonics: 14 different fundamental pitches provide a variety of harmonic sounds.

A few useful alternate fingerings:



Percussive Techniques & Articulations

Contrary to popular belief, the piccolo is able to produce a wide variety of percussive sounds! Due to the small bore size and short tube length, some of the percussive techniques could stand to be supported by amplification.

Articulated Air Sounds: The foundation of beatboxing: "teh," "pe," "ke," etc.

Ribattimento + Flutter Tonguing: common effects (not really considered extended techniques) but often used in contemporary music.

Pizzicato Articulation: three kinds available on piccolo - tongue, lip and pop!

Key Clicks: Tapping the keys may need to be amplified.

Tongue Ram: an effective technique through the ranges.

Beatboxing: Effect is limited due to the narrow bore and short tube length but still a range of possibilities.

Multiphonics

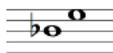
The closed key system of the piccolo does limit the multiphonic capabilities of the instrument. Multiphonics can be achieved on piccolo through modified fingers and adjusted air stream: typically overblowing but occasionally, also under blowing. The 284 fingerings included in *The Modern Twig* span the full range of the instrument and use both 2- and 3- note finger combinations.

(Multiphonics continued...)

Harmonic Multiphonics: Dynamic range is mostly *mf* or louder. 25 combinations in both 2- and 3-note combinations.

Multiphonic Trills: Possible when the trill occurs between multiphonics of similar pitch content & fingering pattern. 32 fingers included.

Some Multiphonics to try!

		MP105 <i>mp</i> A wide aperture and fast air stream are required to stabilize both pitches. Play the first trill key with the middle finger. Aim the air stream higher – focus on playing C2. C2 may be slightly sharp. Stability: 1
		MP024 <i>pp – mp</i> Very stable multiphonic. E may be somewhat sharp. Only speaks in the softest dynamics with a very gentle air stream. If forced, this will sound as octave E's. Stability: 1
		MP071 <i>p – f</i> A very stable multiphonic, functional at the softest and loudest of dynamics. Stability: 1
		MP153 <i>f – ff</i> A very fast air stream is required to stabilize both pitches. Aim the air high – focus on the F#3. Both pitches may be slightly sharp. Stability: 1

Repertoire List

For more information including a detailed Contemporary Piccolo Repertoire List and to purchase your copy of *The Modern Twig*, please visit www.moderntwig.ca

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