

## Introduction

I began studying with Harold Goltzer, then associate principal bassoon in the New York Philharmonic, at the Manhattan School of Music in January 1973. My previous bassoon teacher, Elias Carmen, principal of the New York City Opera Orchestra and former principal bassoon in the NBC Symphony under Toscanini, had died just before Christmas in a tragic accident. It was my senior year, and I was beginning my last semester at Manhattan. After studying with Mr. Goltzer for a semester and receiving my B.M., I decided to continue with my education and with my lessons for an additional two years, receiving a M.M. from Manhattan School of Music in June 1975.

I recall that in our phone conversation before my first lesson. Mr. Goltzer asked me to bring manuscript paper to my lesson. At the lesson he went through his scale studies, and I took notes on my manuscript paper. An industrious student gave Mr. Goltzer Xeroxes of a more carefully notated edition of his scale studies. Mr. Goltzer handed out this Xeroxed version to his other students, and it is upon this and my own recollection that I have based my edition.

Stories abound regarding Harold Goltzer and his scale studies. The legend passed among the bassoon students at Manhattan was that Mr. Goltzer had difficulty mastering bassoon technique when he was young and developed his scale studies to help him develop the technical virtuosity for which he became known.

## The Theory of the Studies

No explanation is needed for the necessity and benefit of practicing scales, arpeggios and scale patterns on any instrument. As incentive to get me to practice scales, Mr. Goltzer pointed out that scales occur throughout music. Learning scales ahead of time negates the necessity of having to practice scales when they occur in the repertoire. This provided enough motivation for me as a student, but the true value of practicing scales can be subtle.

One must practice scales with the goal of developing a smooth, and even technical ability. Possessing such ability, one is able to play music with control and confidence at any speed. In fact, without the scale practice, one finds it extremely difficult to play slow passages evenly, and fast passages at all.

The most common method of practice, whether scales or other music, is to play with a metronome at a tempo slow enough to play a passage perfectly, preferably twice. The metronome is then moved up a notch, and the passage is attempted again at the new tempo. If unable to do so, the player must slow down the metronome and repeat the passage, playing it perfectly, and then attempt the faster tempo once more. If successful, the player moves the metronome up to the next tempo. This continues until the desired tempo is reached. Often one must start over or slow down in order to work the passage up again. This practice may take a period of days, weeks, or months.

Mr. Goltzer's studies are to be practiced in this way, but also incorporate two additional, common approaches to perfecting technique through scales. These approaches are "misplaced beats" and using different rhythmic groupings. These approaches are combined in the exercises of this method.

"Misplacing beats" is a very effective way of learning to play evenly, whether scales or specific passages from the repertoire. In a passage of sixteenth notes, for example, one misplaces the beat by playing the passage starting on the second sixteenth, making that note the one "on the beat." Subsequently all other second notes of each group of four sixteenths are also played on the beat, i.e., with the click of the metronome. When this is executed well, one repeats the process starting on the third sixteenth note, and finally again with the fourth sixteenth note "on the beat." When practicing in this manner, one should use their "eyes" as well as their "ears," i.e., the player needs to focus on the misplaced beat, reinforcing its prominence mentally. The player should also make the passage sound as if it was originally written that way by stressing the misplaced beat with the breath. When a passage is practiced in the described manner, the result will be a fluid and even passage which one is capable of playing very fast.

Playing scales in different rhythmic groupings is simply practicing a passage, no matter its original rhythm, in triplets, sixteenths, quintuplets, sextuplets, septuplets and thirty-second notes. This, in a way, is a variation of misplaced beats in that different notes receive an emphasis, helping to even them out and create a more fluid technique.

Mr. Goltzer's scales are based on combining these three approaches to practicing – slow practice, misplaced beats, and different rhythmic groups – into a unified study in which all three approaches are practiced simultaneously. The result is a very productive and thorough method for learning scales and improving overall technique.

## Practicing the Studies

Each note of all the studies is to be played at the same speed. To Mr. Goltzer this meant that exercises of groups of three notes would be played at quarter note = mm. 112, groups of four notes would be played at quarter note = 84,

groups of five notes, quarter note = 66, groups of six notes, 56, groups of seven notes, 47, and for groups of eight notes, the quarter note would be played at mm. 42.

When beginning the studies, be advised to first learn a scale in triplets at a slow tempo, perhaps working that scale up to mm. 80. At that point, scales in groups of four could be tried at quarter note = 60, groups of five at quarter note = 50 and groups of six at 40. Then the tempo for all of these scales could be increased together until the tempi above are achieved.

Mr. Goltzer would assign me a different key each week and expect me to learn all of the exercises in that key by the next lesson. He assigned major and harmonic minor scales only, however. Since all the studies are basically fingering patterns, the fingering patterns that occur in natural and melodic minor are covered completely in major and harmonic minor scales.

All of the studies in this method are written in the key of C Major. After learning the exercises in C, mentally transcribe each into the new key to be learned. Learning the exercises in this way, in effect, from memory, is part of the study. In section VIII, the dominant seventh arpeggio is performed starting on the dominant of the scale, e.g., G if the key is C major. Similarly, the diminished seventh arpeggio is begun on the leading tone of the scale, e.g., B if the key is C major. Articulations are indicated where Mr. Goltzer expected them, but one is encouraged to practice all the exercises in sections I through VIII using different articulations. All the remaining exercises, except for section XIII, are to be slurred. Section XIII is to be tongued. The starting note for Sections XI and XIII is the tonic of the key. Section XIV uses the arpeggio starting on the tonic, but adds a note not in the arpeggio in each pattern, e.g., the first pattern in the key of C would be a C major arpeggio but with a B-flat added, the second pattern would be a C major arpeggio but with a B natural added, the third pattern would be a C major arpeggio but with an A natural added, etc.

## Conclusion

I recall that, when I was a student, I spent up to three hours per day learning Mr. Goltzer's scale studies. It would take me that long to get through most everything at least once. (I did not practice Chromatic scales, however. To this day, chromatic scales give me trouble. Be advised!) I still practice his scale studies regularly. For a good warm-up, I use the "Schoenbach" Exercises. (One of Mr. Goltzer's students, who had previously studied with Sol Schoenbach - legendary principal of the Philadelphia Orchestra - upon hearing the final exercises in this method, told Mr. Goltzer that he believed Mr. Schoenbach played a similar exercise. Mr. Goltzer later asked Mr. Schoenbach if this were the case. Mr. Schoenbach replied that he had never practiced anything like these exercises. So was the story Mr. Goltzer told me. Despite the incorrect attribution, Mr. Goltzer continued to call them the "Schoenbach" studies.)

To my knowledge, of all Mr. Goltzer's students feel an intense loyalty to these studies. I believe these exercises have given me an excellent technique, and it is my understanding that those who diligently pursue these studies have the same results. I hope this tradition of excellence can now be pursued by of all you who choose to follow this method.

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