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Complications of 20th Century French Basson Music on Modern German Bassoon System

Methods and discussions for overcoming problems

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The sounding part consists of the following recording:

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Abstract

The 20th century French repertoire remains some of the most fruitful and varied music written for our instrument. But in fact it was written for another instrument entirely. While these two instruments share the exact same role when it comes to orchestral playing and every other practical sense - under the hood the instruments could not be further apart in terms of mechanics. So how is it that the bassoonist should go about tackling the intricacies of the French Repertoire - which as a whole offer very challenging pieces - when another layer of intricacies is added on top in the fact that it was all written for an entirely different instrument. Through careful and methodical changes to technique and exercises it is possible to alleviate many of the major problems so that they become more manageable. The hope of this paper is that others shall continue their own research into understanding and overcoming some of the shortcomings and complications related to our instrument in hopes that we may continue to build on our established technical and musical foundations.
Keywords: basson, bassoon, alternative fingerings, complications of performance, double tonguing, reed style

Introduction

Two Systems

The very origin of this thesis finds its basis in the fact that today we live with two institutions of bassoon playing - that of the French and that of the German side. The basson (French) and bassoon (German) as they shall be referenced as hereinafter might appear to some to be basically the same instrument, however, they are entirely different altogether. Not only are they different in appearance - the basson featuring a sleeker profile with the use of the metal French bell versus the bassoon with its more robust build and ivory imitation bell - but to the average listener and the well trained ear they carry entirely different sound worlds altogether. The basson in its development lies closer to the baroque bassoon - holding on to a similar desire to keep the reediness in the sound and the continued use of a narrow bored instrument. German bassoons developed towards an ideal for a darker, more woody and mellow sound, aided by the fact that they are wide bored instruments.

The two systems define themselves also by the region in which they’re played. The bassoon is a global instrument that can be found in nearly every orchestra and music academy you may find. The basson, however, has become somewhat of a rather niche instrument since the turn of the
century. Less and less are people opting for the basson and it is primarily and nearly exclusively played in France and Belgium.¹ This being said it is not even the only instrument used in France, many orchestras only use the German bassoon in their orchestras while others such as the Paris Opera still uses basson.²

The differences between the instruments stem further than the initial differences in their appearance. The fingering systems between the two are entirely different. The basson was largely developed thanks to Buffet whereas the bassoon was built up by Heckle and Allmenräder. While there were attempts to convert the bassoon to the boehm system³ - the unsuccessful attempts gave way to entirely different visions. What is now known as the Heckle fingering system is far clunkier than that of the Buffet system. Fast and nimble playing does not come as easily to the hands as it does under the Buffet. This is similarly seen when one examines the works written for basson versus for bassoon. The Weber concerto is an example of a work for bassoon that was greatly enhanced by the Heckle and Allmenräder developments on the fingering system.⁴ However, after this the instrument is left in the dust and pales in comparison to the virtuosic output seen during the 20th century by the French repertoire.

¹ James B. Kopp, The Bassoon, (Yale University Press, 2012), 178
² Kopp, The Bassoon, 178-179
³ Kopp, The Bassoon, 2
The reeds cannot even be interchanged between instruments - the basson having a much larger reed with a different style in scrapping. With this allowing us to see no real transferability between the instruments. While on paper they may share the same “bassoon” name, they remain entirely different instruments in their own right.

And why particularly the 20th century? Well, this period marks the happy marriage between French composers and new basson music. The establishment of the Paris Conservatoire elevated the instrument to a new level - producing very proficient players which aided to having works commissioned as well as the continuation of the music concours which somewhat forced composers to write for the instrument as one will find a large section of the basson repertoire is thanks to the concours.5

Understanding this we can now abstain from using this as a solution to the problems and complications at hand. If it were so easy and convenient to change instrument to play the repertoire this paper would be very short indeed. However, hoping that the reader shall come to understand that simply buying a new instrument will not be an easy fix and for the practicality of the average bassoonist - who one would imagine most likely plays German system - this paper shall attempt to uncover some solutions to the many problems and complications that arise when playing basson music on the German system bassoon. If one were to venture thinking of

preparing the 20th century French basson music as preparing transcribed music not for your own original instrument one might begin to see where the possibility for issues may arise.

This topic was undertaken because of the overall lack of attention payed to the German bassoon playing standards. There have been but few of methodical schools of improvement - most notably at this time Ole Kristian Dahl’s Drills system. But overall there has been little to no attention directed at the main problems we face as player playing a huge section of our repertoire that was written for a different instrument. Essentially being transcribers in our playing of these works we encounter entirely new trials when attempting to perform these works. In writing this paper the research was largely based on my own preparation of the works and seeking solutions and answers in the practice room as well as in the guidance from a number of teachers. Through understanding the pieces thoroughly it allowed me to gain a clear understanding of the main points that needed to be tackled and unraveled. Through this research I have found and notated a number of solutions I believe are invaluable to the player beginning to undertake some of these works.

**Reed Styles**

The basson and bassoon have very different reed traditions and ideal sound worlds. In the case of the basson reed it is somewhere in between a
bassoon reed and a contrabassoon reed in size. The reed being much wider and bigger than the German reed leads to a question of whether one should seek out a longer and wider reed. In the first case, that of a longer reed, this is not always possible for bassoon. Due to the nature of acoustics a longer shape will equal a flatter pitch which is of no value to the player as this won’t be in tune and also makes playing higher notes dramatically more difficult due to the fact that the reed will be flatter. In the area of reed design Rieger provides a large variety of different reed shapes for the reed maker. This makes it possible choose a wider shape if needs be. Traditionally the Rieger 1A shape has been used for first bassoon players, for its projection, ease in the tenor register and affinity with the highest register. Rieger 2 being the most common wide shape, however, has customarily been used by second bassoon players for its more earthy tones, resonant and dark sound and ease with which it produces the lowest register and facilitates attacks. This tradition is by no means restrictive however, for a new tradition has emerged of bassoonists who play on shape 2 irregardless of its general leniency towards the low register of the bassoon. Dag Jensen and Theo Plath play on shape 2 reeds and they have also made excellent recordings of the French repertoire including pieces featuring the extreme register.6,7 This leads on to the conclusion that a wider shape can in fact be utilised in the facilitation of the repertoire at hand.

Ole Kristian Dahl is another bassoonist who uses a wider shape. He has produced his own shape - the OD which has become popular in the Mannheim school of bassoon playing among his students and also with people outside of the school. I have began to dabble and experiment with the shape itself. The reed shape is a blend of the ideas of a 2 with the more tension bound ideals of the 1A. This produces an incredibly versatile reed, which may prove indispensable to the bassoon player who wishes to tackle the French repertoire which often runs through the entire range of the bassoon within a few bars.

Another shape that may be of interest to the bassoon player to try is the Rieger shape 9. This is a tulip shaped reed and offers a huge amount of projection and ease of use in the high register. While the lower register suffers slightly in terms of soft attacks - the lack of these in the French Repertoire makes the use of this shape an ideal compromise for acquiring the ease in the high register that is so important for many of the pieces you will have to perform.

In terms of scraping the two systems could not be future from one another. While the bassoon supports the idea of the spine of the reed and vertical scraps within the channel - the basson reed is based on horizontal scraps that lead to a more equally gradient reed lacking in such a defined spine.\textsuperscript{8} This also may have a huge effect on the sound ideals of the instrument.

\textsuperscript{8} Holger Simon & Johann Rieger, \textit{Tips & Tricks for Bassoon reeds}, (Germany), 2017
With the bassoon idealisation of warm, woody round, core filled sound the bassoon juxtaposes this with a closer look towards the characteristics of the baroque bassoon. The nasal and reedy quality of the basson sound is cherished by its fans while lauded by bassoon players. This difference in sounds is in my opinion uncompromising to either system and so I believe the scrapping methods of the basson school share little to no interest to the bassoon player in pursuit of the French repertoire. However, it may be of interest to the very dedicated to perhaps seek a sound quality closer to that of the basson in their reeds when performing the French repertoire, though, there is no specific requirement for this.

So should the bassoonist change their sound ideals to match that of a French bassoon in the performance of French works? I believe not, the artistic integrity of the artist should at all times still be intact. And why not just simply play basson when playing these such works? The differences in the instruments are large enough to justify learning the basson as learning a new instrument entirely. The time one would use to learn the basson can be best spent elsewhere and the practical uses of having learned the basson as an orchestral player will be few and incredibly far between.

**Maurice Allard**

It is so very rare that we are given the opportunity to hear recordings of what can be taken as historically accurate performances of pieces we are looking back upon. Maurice Allard was a French bassoonist who had many
pieces dedicated to him as well as being the one to premiere many of the French concerti such as the Jolivet concerto.

Having such a well respected and accomplished bassonist from the time make so many recordings of the repertoire is an invaluable resource for the bassoonist beginning to tackle some of the repertoire. It is most advisable that one first seeks out a recording of the works played by Allard before beginning the learning process. Through this it is then possible to produce a more accurate and informed interpretation of certain parts of the repertoire. It is also incredibly valuable to be able to listen to a bassoon playing the works. The sound of the instrument being so different also leads to different colours being achievable which may give some inspiration to how one can use colour changes in their own way.

When listening to his recording of the Jolivet concerto, for example, one can hear the jazz influences come through much more easily than in other renditions. This is achieved through Allard’s laziness with some of the dotted rhythms in the second half of the first movement giving the impression of swung rhythms and the use or rubato which stretches out sections that become otherwise rushed through if played completely straight such as in other recordings. It is small elements like this that can be attained by the listener and taken to their own playing to achieve a more accurate and informed performance of a work.9

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**Fingerings**

Due to the acoustical instability of the bassoon - lower notes can easily be achieved through playing multiphonics that force the subharmonic lower notes to play lower than it can be naturally played on the bassoon through key work and notes can be reached to project higher than a piccolo with the use of extended fingerings as well as reed and embouchure adjustments (Kristian Oma Rønnes discoveries). Essentials of bassoon technique by Louis Cooper and Howard Toplansky presents a compendium of possible fingerings and their usage in the bassoon literature. The addition of fingerings only becomes more and more vast with the passage of time on bassoon due to the addition of keys and manufacturing improvements. For instance the closed fingering for D was the only possible fingering for a tenor D on older models of bassoon made pre 21st century. While the closed D is much more stable tuning wise, it creates a break in the tone quality across the register and does not have the same freeness or technical freedom as the open D fingering.

Tenor F sharp is one of the most unstable notes on the bassoon and many fingerings exist that cannot hide their unstable quality when sustained and causing the player to put in extra care into the note. Borrowing the french fingering for the tenor f sharp creates a much cleaner and harmonically

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10 "KOR - Bassoon plays higher than Piccolo Flute", Youtube, accessed March 16, 2023, https://www.youtube.com/watch?v=LXaBLixmN_E&ab_channel=KristianOmaR%C3%B8nnes
11 Louis Hugh Cooper and Howard Toplansky, *Essentials of Bassoon Technique*, (Howard Toplansky, 1968)
rich sound on the heckle system bassoon. The french fingering also has some technical ease implications due to its linearity with the tenor G fingering.

In Drills 2.0, Ole Kristian Dahl shares a large range of fingerings which include running technique fingerings. These are fingerings with dropped fingers (fingers left out of the original full finger pattern) which do not sound great on their own but when played in fast passages sound perfectly suitable and allow for a more technically easy manoeuvring over the key work. The French repertoire has some of the most difficult passages in the bassoon solo repertoire of the 20th century which means that any helpful shortened fingerings can aid greatly in easing the strenuous nature of the passages.

In Practical Use

Saint-Saëns Sonata - the second movement ending use of running technique fingering versus switching to full fingerings. In this passage the use of running technique fingerings are much easier and less like to trip over oneself with while switching to full fingerings when the passage turns into quavers actually produces a better sound and greater stability as this part will be perceived more easily by the listener. The main issue lies in the very end where a German bassoon must try and ascend to a high e, articulated, in piano. Very difficult to achieve when not playing on a basson. A suggestion of changing to full fingering in the second last bar

12 Ole Kristian Dahl, Drills 2.0, (Ole Kristian Dahl, 2019), 24-60
and slurring a full fingered d sharp into a high e with the addition of breath accents to produce a false sense of clarity. Or the use of running technique through which will allow the notes to speak more easily to the high e but will not have the same level of security. An altered fingering on the high C sharp lifting the first finger and addition of the right hand b flat key on the left hand will also allow for more clarity and erase the probability of the note cracking. This is also a borrowed fingering from the french basson which they use for slurs and jumping passages but which also give better security in articulating on German bassoon.

**Case Studies**

**André Jolivet**

Approaching the Jolivet concerto is a task often left to that of final year master students if the concerto is to even be approached at all. It is by far one of the most difficult works in the standard repertoire let alone one of the hardest in the French 20th century repertoire. Any attempt at the work must be met with a solid foundation of technique and musicality to be able to tackle the mass demands of the piece.

So what complications does one arrive at with the concerto? Let us first begin with the high register.
The High Register

The high register is most readily used throughout this concerto. The piece begins on a high C, the same one as in the beginning of The Rite of Spring. Luckily for the player this is not the hard part as in Jolivet you enter in forte which is a reliable and constant attack dynamic for this note. The problems arrive latter with the continued use of the high register.

![example 1.]

The first bar after figure 1 begins on a high d in triple pianissimo. Given the nature of the bassoon this note is a difficult one to make speak and when it does speak it will generally be loud due to the high register pinging through. A way to resolve this first issue is the use of the French muted fingering for high C sharp. The principal of the half holed left hand second finger can be transferred into this setting also to produce a muted D that also has a much easier attack. The following high C sharp at figure 2 may be aided with the use of the D and C vent key being pushed down which will ensure that the note speaks and dose not crack.
The cadenza area after 4 marks a very dangerous place due to the D sharps which are approached by a slurred leap. The difficulty lies in the preparation of succession of the note. I would recommend a full fingering for the D sharp - which will tie in nicely with its slur from the A below.

Do not prepare the embouchure during the A as this will produce a tight strained A - rather tense the embouchure during the slur up to the D sharp and press slightly more than usual and you will achieve a good slur between the A and D sharp. Because the D sharps are dotted and accented you do not have to be too controlled and reserved with the air output. The faster the air moves in the leap - the better.

At 5 for the high E I believe it is perfectly admissible to only give an air attack for the second E rather than doing a full retake with the tongue. By doing this you avoid the danger of the E cracking and failing which is already at risk especially because of the crescendo.

The bar before 33 marks another place where I believe an air attack on the E may replace the use of the tongue. To achieve this properly in this
location produce an air accent on the E which at this register and with the orchestration will sound like a tongued E anyway. Also the use of the running technique E will suffice in this location as the sound quality will not be heard for that long and the risk of slurring from a full finger D into a traditional E is too great in this location.

![Example 3](image)

*example 3.*

Figure 37 marks the beginning of the runs into a famously difficult run into a high F which is featured in this work. Again a tonguing can be skipped if you wish to save the risk of the note cracking and rather go for an air accent. Insure to increase the airflow by a lot into the high F as this note will come out rather flat which played with the same air pressure as E. In most recordings the clarity of this note is barely heard - so while you should aim to play and prepare it - do not worry that it will not be the
prettiest note to exit the instrument.

*example 4.*

In the final movement in the second bar of 33 you lead into the third bar accented high E. If you are going to make the articulation here you do not want to make a very pronounced gap between the notes. Try and keep the tongue as close to the reed as possible and even though there is an accent you want to avoid hammering your tongue onto the note which will cause a split. Rather keep a close tongue with a light articulation and give the accent more so with the air. The final note being a rather iconic high D should be as free as possible. Avoid the urge to press the note and rather have a loose low jaw and support the note with a lot of air support. Biting on this note at the finale would be a terrible shame and ruin the tonal clarity for the final chord. Remember to avoid biting and increase clarity and airflow.
Articulation
It is important when preparing this work that you prepare the different articulations with an eye for detail. It is clear from even the first page of the work that Jolivet makes a vast use of different ways of articulating and you should not become complacent when doing them. In general, follow what is on the page for these are the most concrete ideas of the composers intentions.

A particular point of tension with the articulation in this pieces comes in the second half of the first movement from figure 25 and figure 26.

\[\text{example 5.}\]

This section provides a certain level of difficulty for a number of reasons. The passages do not sit comfortably in the hand due to the crossing of registers and the amount of thumb crossing. This may be overcome by
practicing the passages in rhythms. Ensure that the left thumb remains as close to the whisper key as possible so that the breaking of the registers won’t cause a split in the notes due to the loss of the whisper key connection. In terms of the articulation most players may have to double tongue this section. Especially if you to perform the section close enough to the tempo marking indicated at the start of the movement section. Double tonguing in the low register can be problematic due to the fact that making the low notes speak with the traditional ta-ka voicing will likely cause cracking. To avoid this rather try vocalising tô-kô or tur-kur so that your jaw and dental cavity remain low and wide, this will allow the notes to speak correctly and with enough clarity. To achieve the slurred staccato notes press through more air as if playing an accented note. The increased air shall produce an elongated articulation fit for the slurred dots.

Slurs
It is often a feature of 20th Century French basson music to include a lot of large slurs. The Jolivet takes this a step further as in the very first phrase the instrument goes from the very top of the register to the very bottom. As seen in example 1. The entire register of the instrument is run through twice within the first two lines and most of this is done in slurs. The tightness of the slurs and connection between the notes is thus very important for a lot of this concerto. To ensure connection through the notes there are a number of breathing exercises one can use in order to improve this.
Firstly with a full tank of air the player can expel air vocalising tsz in order to mimic the air flow and pressure needed for playing. While preparing this piece it is of value to practice the air patterns of the long legato phrases using tsz in order to build the connection between the notes. First go through the line articulating each note with an articulated and held tsz sound. Work with the airflow and phrasing even at this stage. Then go to playing the phrase normally on the bassoon. You should find now that the preparation of these legato lines are much easier and the slurs not only become tighter, but more reliable as well.

**Marcel Bitsch**

The Bitsch Concertino is another challenging work for the budding bassoonist. Its first section requires a diligent use of air control and legato work while the cadenza and final section show of the players technical refinement in finger technique. While only taking around 11-12 minutes to play through, the work is a very challenging undertaking.

**Alternate Fingerings**

During the slow lyrical section of this work is may be of advantage to the player to use a number of alternative fingerings in order to make life easier for the slurs. It is advised that the slurred section be practiced in the same way with the tsz vocalising patterns, but the addition of a number of alternate fingerings shall give even easier alleviation to the problems at hand.
Firstly an alternative fingering should be used in the most part for the tenor G sharp when slurred down to tenor D sharp. With regular fingerings the slur from G sharp to D sharp is near to impossible. The likelihood of achieving a correct slur without articulating the note is incredibly low and you will most like receive a split multi-phonic when attempting to execute. Using the fingering for G sharp shown in example 7 will allow for a clean and secure slur between these two notes.

![Example 6](image)

*example 6.*

The next slur that is difficult to achieve is the tenor C sharp to middle G sharp also shown in example 6. The G sharp is likely to split due to the half hole so an easy substitute for this is to flick the A vent key when you slur down to the G sharp. This along with a correctly executed half hole will result in a secure and well sounding slur between the two notes.

**The High E**
There are a number of fingerings that can be used for the high E which appears before the cadenza. Here are two recommendations which can be used to great effect as they both have open and stable sounds when executed. The slurring between the high B and high E from the first
fingering is slightly easier to execute, but no matter which fingering you use it should be a full fingering so as to achieve a full sound on the held high E’s.

example 9.

Finger Technique
The Allegro Vivace of this concertino presents many challenges for the player of the bassoon. Many of the combinations are difficult on the German system and a number of passages are difficult to navigate without some tricks.

When first tackling the running sixteenth notes in this movement it is advisable to first practice the runs in rhythms. Start at first with the metronome at 60. Then play in the following rhythms -
example 10.

Go through all runs as such and then raise the metronome a notch.

Continue this until 100 bpm. At this point the passages will sit reliably under the fingers and you will be able to achieve clean and clear playing.

example 11.

A very tricky passage comes on the last page of the movement where there are running octaves. To avoid an olympic gymnastics level of thumb movement I would recommend that only the first tenor B flat be vented and do not vent the whisper key on the middle B flat, then vent tenor C and lip down to the middle C. This will save a lot of time for the thumb and improve clarity of the notes in the run. It is then advisable to play the tenor D flat with the same fingering as the lower D flat but lipped up. For the E flats simply lift the left hand third finger and continue to lip both notes with your embouchure. The notes quality will not be particularly pleasant - but at a fast tempo this will not be heard. This suggested
fingering for the run will result in a very smooth and calm movement which will aid in the clarity and execution.

Discussion

Complications
While the French repertoire presents many difficulties technically I believe it is one of the most fruitful and rewarding eras of music for the instrument. While originally written for basson - the performance of the works on bassoon is all but accepted common practice. There is nothing shameful in this as the expectation to purchase and learn a new instrument for a percentage of the repertoire is an unreasonable ask for most players. One should keep in mind while performing these works that there are a plethora of recordings of basson players one can listen to in order to gain an understanding for the correct sound world the composers were writing for. While making reeds for the French repertoire there are a number of concerns to work towards - namely having reeds that can easily and fluidly move throughout the entire register of the bassoon, especially that of the high register. A flexible reed is incredibly important for being able to comfortably move through the register, for example the opening to the Jolivet Concerto becomes rather problematic to a player with a bad reed that cannot be controlled through all of the registers. Finding the correct set up to play the French repertoire is an essential starting point for anyone looking to tackle the rep. This paper brings up a number of problematic technical aspects in the Jolivet Concerto and Bitsch Concertino that are
also present throughout the rest of the French repertoire which the player should verse themselves with in order to alleviate some of the difficulties.

In the preparation of the thesis paper I prepared the Bitsch Concertino and Tansman Sonatina for performance while also practicing the Jolivet Concerto for research purposes. The preparation of these works was illuminating in understanding the general underlying aspects of the French repertoire as well as understanding and devising methods to overcome many of the unique complications that arise on performing the works on bassoon rather than basson.

The value of playing these works is tremendous for understanding how far the instruments have come in terms of technical refinement throughout the ages.

**Bibliography**


