

“Write for the trombonists, not the trombones”: the FACETS-framework for performer-oriented orchestration in amateur or student bands and orchestras

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ABSTRACT: Musical scores in large instrumental school or amateur ensembles, such as bands or orchestras, are often (re)arranged for their student and amateur performers. This study aimed to establish principles of orchestration for these ensembles, which have received little attention in orchestration literature. To do so, we considered the score as an orchestration of performers’ music-making. We conducted semi-structured interviews with eight arrangers, including a discussion of one of the participants’ scores. Using a constructivist grounded theory approach, we developed the FACETS-framework (Flexible, Ambitious, Clear, Enjoyable, Tailor-made, and Safe) for student and amateur performers. Orchestration is described as *flexible* to accommodate unpredictable line-ups. Arrangers are musically *ambitious*, using the ensembles’ affordances to create interesting, challenging, expressive, and meaningful music. Scores are *clear*, designed to fit their players’ musical experience and expectations intuitively. The orchestration process is considered a puzzle of *enjoyable* playing experiences. Arrangers *tailor* key, pitch, dynamic, and articulation to instruments and performers, and intertwine musical and psychological *safety*. Performer-oriented dimensions are identified as decreasing in higher-end ensembles. Our results enhance understanding for the craft of arrangers for nonprofessional ensembles, and the impact their scores have as musical-pedagogical actors, during performance as well as rehearsal. The FACETS-framework can support arrangers and ensemble leaders, and become a tool for orchestration teachers to address scoring for student and amateur performers.

KEYWORDS: amateur ensembles, band, orchestra, orchestration, instrumentation

ORCHESTRATION FOR AMATEUR AND STUDENT PERFORMERS

Amateur ensembles

Large instrumental ensembles, such as bands or orchestras, play a significant role in instrumental music-making across many Western countries and beyond. Bands come in different types, sizes, and traditions, including the internationally prevalent wind or concert band (based on the French *harmonie*), the brass band that originated in the United Kingdom, and the fanfare orchestra found in Belgium and the Netherlands. In contrast, string and symphony orchestras follow a uniform template worldwide (Adler, 2016). While there are many bands and orchestras in which musicians are paid to rehearse and perform, these professional ensembles overshadow a ‘silent’ majority of nonprofessional bands and orchestras. Thousands of these leisure groups exist in many countries, yet they receive scant attention in music and performance literature.

In North America and countries such as Japan (Hebert, 2012), band or orchestra playing can be integrated into the music curriculum in secondary schools (Lee & Worthy, 2012). Besides the school setting, in these countries and elsewhere, ensemble playing also occurs through associations of voluntary musicians who rehearse and perform together as a ‘serious leisure’ activity (Stebbins, 1976). In line with Stebbins’ serious leisure perspective (Stebbins, 2020) and policy in Flanders, Belgium (VLAMO, 2022), we refer to these groups as amateur ensembles. In Flanders, where this study was conducted, ensemble playing in primary or secondary school is rather exceptional. However, amateur ensembles often belong to or collaborate closely with local music schools or universities. Consequently, in this study, we do not draw a strict distinction between school and amateur ensembles.

Orchestration

Bands and orchestras feature a standardized line-up of instruments, each playing their own part, either alone or in sections. The art of “combining the sounds of this complex of instruments to form a satisfactory blend and balance” is known as orchestration (Kreitner et al., 2001). There is a rich historical literature of handbooks and treatises on orchestration for symphony orchestras (e.g. Berlioz, 1843; Forsyth, 1914; Gevaert, 1863; Gilson, 1913; Kastner, 1837; Kennan & Grantham, 1952; Koechlin, 1959; Piston, 1955; Rimsky-Korsakov, 1913; Widor, 1904), as well as more recent handbooks on the same topic (e.g. Adler, 2016; Sevsay, 2013). In these books, orchestration is presented as an artistic craft best learned by studying examples from classical masters. The argumentation is typically idiosyncratic rather than systematic (Chon et al., 2018). Goodchild and McAdams (2021) criticize these orchestration handbooks as a “speculative, master-apprentice model of knowledge transmission” (p. 497).

In these books, a major part is focussed on what has been termed “instrumentation” (Berlioz, 1843; Kreitner et al., 2001): the art of writing for specific instruments. The technical possibilities and resulting timbres of each orchestral instrument are explained. Only a limited portion is devoted to orchestration itself, if strictly understood as the art of *combining* instruments to create form and expression. The performers behind the instruments are seldom considered, being assumed as their obvious operators.

Performers in school and amateur orchestras are, however, rarely such exhaustively

educated performers who play their instruments with evident mastery. School and amateur ensemble manuals (e.g. Adey, 1998; Littrell & Racin, 2008) highlight various challenges these musicians face, such as sound production, technical proficiency, and reading skills. Another, poorly documented problem in large instrumental ensembles is the shortage of certain instruments (Geudens & De Baets, 2023; Meade, 1995), as the ensemble's line-up depends on the availability and willingness of players. Consequently, many ensembles play scores that have been specifically composed, or (re)arranged to suit their capabilities. These arrangements also enable performances by less experienced musicians or with alternate instrumentation (Zabanal, 2021).

The line-up and level of technical mastery in such ensembles have been generalized into a six-level division with each music publisher using its own variation (Andrews, 2020; Janssen, 2004; Shand et al., 1998). These levels range from easy (levels 1 and 2) to medium (levels 3 and 4) and advanced (5 and 6), sometimes including half levels. For each level, publishers provide guidelines for composers and arrangers (e.g. Alfred Music, n.d.). In addition to these practical guidelines, some professional-oriented books have addressed arrangement and orchestration for band or for amateur players in more detail. Already in 1898, Parès (1898) standardized the band's line-up in his treatise on scoring for military bands. Other books that mention bands and amateur ensembles focus on instrumentation (e.g. Adler, 2016; Clappé, 1911; Eijssen, 2008; Janssen, 2004), while some explicitly address orchestration as well (Camphouse, 2009; Erickson, 1985; Oboussier, 1977). More recently, Whitcomb (2024) has shared his practitioner knowledge in arranging for beginning string players, and Pollauf (2022) in writing additional harp parts for student ensembles.

Orchestrating performance

Several research projects at the University of Ottawa (Andrews, 2009, 2013; Duncan & Andrews, 2015; Giesbrecht & Andrews, 2021; Mielke & Andrews, 2022; Swanson, 2016) have explored the underlying intentions of composers of what they termed *educational music* within the North American school ensemble tradition. These composers created music that was technically suitable to the students' abilities and emphasized the importance of having a good working knowledge of the instruments and of maintaining direct contact with students (Andrews, 2013; Duncan & Andrews, 2015; Swanson, 2016). They aimed to balance technical limitations with writing music that was at the same time expressive, interesting, challenging, and beneficial for musical skill development (Andrews, 2013; Duncan & Andrews, 2015; Andrews & Giesbrecht, 2014, as cited in Giesbrecht & Andrews, 2021; Mielke & Andrews, 2022; Swanson, 2016). To achieve this, composers employed new sounds and techniques, and made colorful use of various parameters such as form, timbre, and harmony (Giesbrecht & Andrews, 2021; Mielke & Andrews, 2022). Composers advocated that music for young musicians had to be enjoyable (Swanson, 2016), and wrote equal instrument parts to keep everyone engaged and motivated (Andrews, 2009).

The recurrent concern for interesting and challenging music aligns well with Vygotsky's *zone of proximal development*: "the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined though problem solving under adult guidance, or in collaboration with more capable peers." (Vygotski, 1978, p. 86). This concept has been widely adopted in education and has been mentioned by music teachers as a guiding principle for repertoire selection

(Henton, 2022; Hopkins, 2013) and part assignment (Simpson, 2024).

Although the research reports from Ottawa addressed the entire composition process rather than orchestration alone, many of the issues discussed are relevant to orchestration. Writing music that fosters (intrinsic) motivation emerges as an important concern. Learning to play an instrument, which most musicians hopefully find inherently enjoyable, is also challenging and takes a lot of time, making motivation a central issue in instrument learning (Evans, 2015). Researchers have demonstrated connections between the satisfaction of Ryan and Deci's (2000) three psychological needs (autonomy, competence, and relatedness) and participation (Evans & Liu, 2019; Weren et al., 2017), social relations (Weren et al., 2017), practice (Evans & Liu, 2019; Schatt, 2018), and self-esteem (Evans & Liu, 2019) in large ensembles. Musicians tend to focus on musical aspects as a central motivating force (Weren et al., 2017), but this relationship is yet unclear. A promising line of inquiry in this regard is the growing number of (group) flow studies in music performance (Tan & Sin, 2021; Tay et al., 2021).

The practice of the composers outlined above is best understood from a *praxial* perspective (Elliott, 2009; Elliott & Silverman, 2014) on composition and orchestration. In his influential work on *musicking*, Small (1998) deconstructs an orchestra performance by arguing that, contrary to most Western classical thinking, music should be seen as an activity rather than a 'thing' or a score. He criticizes the tendency to overlook performers, who are often regarded merely as craftsmen rendering imperfect performances of a perfect object. Small advocates for a paradigm shift in which "performance does not exist in order to present musical works, but rather, musical works exist in order to give performers something to perform" (p. 8). From this perspective, music is not a product on paper, but something people do (Buchborn et al., 2022). This emphasis on music-making, expressed in the (active, ongoing) *gerund musicking*, suggests that the value of making music may well lie in the fulfilment derived from the doing, rather than in any external value placed on the score or public performance (Elliott & Silverman, 2014).

This shift from score to music-making also implies a shift from instrument to performer. This aligns with the so-called "performative turn" in academia, which has been particularly significant in music (Palmer et al., 2020; Rodríguez-Quiles, 2017). This attention for the performer has also been advocated by composers: "To be a good orchestrator, it is essential that one never composes music for instruments; rather, one should strive to always compose music for the people who *play* those instruments." (James Barnes, as cited in Camphouse, 2004, p. 9). In such an approach, the instrument is no longer a mere artefact but an organic part of the performer's body (Nijs, 2017). Influenced by dynamic systems theory, Nijs and colleagues (2023) have escalated this interwovenness between performer and instrument into a synergetic approach to music performance where the instrument becomes part of the musician's "cognitive ecology". In this perspective, the instrument is a part a microcosm of social interaction in which it offers a certain "playability", certain affordances and constraints (Bishop & Keller, 2022). These affordances and constraints transcend the instrument itself, and can be technical, but also, for example, physical, acoustic, psychological, or social (Nijs et al., 2023).

AIMS

In this study, we aim to formulate principles of orchestration for amateur and student performers in large instrumental amateur ensembles. We create a new framework by exploring and analysing strategies of composers and arrangers for such bands and orchestras. To do so, we consider the score as an orchestration of performers' music-making. Our goal is to enhance understanding, appreciation, and perhaps even emancipation of a craft that has often been overlooked. Our method allows us to transition from anecdotes and practical instructions to a more systematic framework that can be utilized by practitioners involved in large instrumental ensembles.

DATA AND METHODS

To build a new framework comprising the practitioner knowledge of a well-established practice, we chose a grounded theory approach based on interviews with experienced arrangers, supported by score analysis. The practitioner beliefs we wanted to capture were those that did not reside in their knowledge of traditional orchestration, but in their practical application when orchestrating for amateur and student performers. This aligns particularly well with the pragmatist thinking (Peirce, 1878) that underlies grounded theory. Out of the many approaches to grounded theory that were developed after Glaser and Strauss's (1967) seminal work, we took a constructivist stance as proposed by Charmaz (2025). In line with the symbolic interactionism (Blumer, 1969; Mead, 1934) in Glaser and Strauss's original work, Charmaz stresses the constructed nature of reality as meaning-making by communicating individuals. In constructivist grounded theory, researchers also account for their positions and perspectives, and how they influence their analysis.

Researcher and participants

All interviews were conducted by the first author, who holds higher music education degrees in composition, conducting, music education, and a teaching degree. He has 10 years of experience as a conductor of several amateur symphony orchestras, and has written many arrangements for amateur bands, orchestras, and choirs at different levels. His expertise was essential during the dialogue with the other participants, in which many technical issues (e.g. implications of trombone positions for the playability of pitches) were addressed, and during the preparatory sheet music analysis of their work.

Participants were recruited in Flanders, the northern Dutch-speaking region of Belgium. They were contacted through email and asked to provide their informed consent beforehand. During this initial email conversation, the first author and the participant agreed on which of the participant's works would be discussed during the interview. The choice was based on level, convenience, and the participants' personal preferences. Only participants with at least ten years of band and/or orchestra arranging experience were included. All participants had ample experience as music educators. The notable gender imbalance in leading roles in the instrumental amateur ensemble sector (VLAMO, 2022) was reflected in the sample. After four interviews, our concurrent coding indicated a theoretical direction (Charmaz, 2025). We included four other participants in whom we balanced a background in bands or orchestras, various degrees of international acclaim, and the amount of experience in teaching composition or arranging. Finally, our theoretical sampling (Glaser & Strauss, 1967) resulted

in eight ($n = 8$) participants, who provided theoretical sufficiency (Dey, 1999) to our study. Their profiles are briefly described in Table 1.

Participant	Gender	Experience		
		Conductor	Composer	Most common ensemble type in portfolio
1	M	x	x	Bands
2	M	x	x	Bands
3	M		x	Vocal, variable
4	M	x	x	String orchestras
5	M	x	x	Chamber music, string/symphony orchestras
6	M	x	x	Various, symphony orchestras
7	F	x		Symphony orchestras
8	M	x	x	Bands

Table 1. Participants (no age-related information is given to preserve anonymity)

Data collection and analysis

The study design was approved by the Social and Societal Ethics Committee of the researchers' university. At the time of the study, in the spring of 2022, legal measures against the COVID-19 virus necessitated avoiding physical encounters as much as possible. The study was therefore conceptualized with online interviews through the teleconferencing platform Zoom, and they were recorded with the aid of its recording tool. Teleconferencing was already well established in 2022, and there were no noteworthy technical issues. All interviews were planned during office hours for 90 minutes, and lasted 59 to 90 minutes (74 minutes on average).

During the interviews, we approached the participants' practitioner knowledge in three subsequent phases. All interviews started with an open question to elicit the participants' initial thoughts on orchestration for amateurs. The interviewer then transitioned to a semi-structured approach, based on a topic list (Mortelmans, 2020) derived from the orchestration literature, and sensitizing concepts based on his own practice. To avoid any overreliance on the literature or the interviewer's informal frameworks, topics were treated in a different order in each interview, following the flow of the conversation. They included the orchestration process, instrumentation guidelines for different groups, pedagogical intentions, attitudes towards the original orchestration, and intentions for the musicians in terms of challenge, experience, motivation, understandability, notation, or personalities. Additional questions for clarification or elaboration were common.

In a third and final section of the interview, we wanted to see how the participants' ideas manifested in the musical score that had been agreed on for discussion. The interviewer referred to an exploratory analysis in which he had identified 10 to 15 places which, according to his experience, might relate to the topics above. These passages were then discussed between the interviewer and participant.

During the interviews, the first author positioned himself as an empathic colleague rather than a distant outsider, adding to the co-constructive character of the conversation (Charmaz, 2025). The arrangers provided their views and strategies, laced with examples and anecdotes. The interviewer originally framed his questions toward writing arrangements of existing

music, but as most participants referred more to their own compositions, he followed this perspective. The considerably different balances that each participant described between performer-oriented and esthetical criteria were the subject of the majority of the interviewer's reflexive writing, considering his own practice in which large adaptations for young performers were common. In the last four interviews, the interviewer focused his questions on the theoretical direction and wording that was emerging during the study (as suggested by Charmaz, 2025).

After interview 1, 4, 6, and 8, the interviews were transcribed verbatim by the interviewer, who also undertook *open coding* with the aid of ATLAS.ti 22. Coded fragments varied from one sentence to entire paragraphs. The analysis of the participants' work was only used as an elicitation of verbal reflection during the interviews but not coded separately. After each interview, the interviewer wrote a methodological report (Mortelmans, 2016) reflecting on the process and content of the interview. Memos were taken during the entire process. Early in the analysis, it became clear that the interviews with participants who had a more elaborate repertoire and international acclaim, more often in the band world than the orchestra world, resulted in richer coding, leaving a stronger mark on the coded dataset as well as the final analysis. To balance this, we chose to invite sufficient participants with a background outside of bands. The interviews were conducted, transcribed, and analysed in Dutch. The resulting framework was developed in Dutch and translated to English while preparing this article.

Focused coding (Charmaz, 2025) and preliminary clustering took place from interview 4 onward and were refined afterwards. Finally, we proceeded to *theoretical coding* (Charmaz, 2025; Glaser, 2005) in which we combined the application of a-priori concepts with emergent categories. We grouped statements related to conducting and rehearsing, which were not included if they did not pertain to orchestration. Other *a priori* concepts included instruments and instrument families, and musical parameters such as articulation and dynamics. However, emerging categories of strategies accounted for the greater part of our coding. This emergent coding resulted in nine categories, which were reduced to six through iterative analysis, aided by dialogue between the authors' discussions during collegial intervention. We developed a rich description of these dimensions, identifying possible subcategories. We attempted to use "social orchestration" as a central concept, but found that the dimensions that had emerged transcended purely social aspects, and, conversely, that the many possible meanings of "social" did not fit our framework. We chose "performer-oriented orchestration" as a more suitable label, and developed a six-dimensional framework, establishing the order of the six dimensions according to the FACETS acronym.

THE FACETS-FRAMEWORK

From our findings, we established the FACETS-framework for orchestration aimed at amateur and student performers in large instrumental ensembles in the Western classical tradition, such as bands and orchestras. The framework is developed along six dimensions, which are displayed in Table 2. The six facets, each a category of several related guidelines, are elaborated separately in this text, but are interwoven in several ways. They can also be conflicting, and arrangers will balance them against each other in different ways. The eight voices in the dataset each balanced them in their own way, most intriguingly when conceiving

musical ambition in relation to the other parameters. The six facets of the framework are elaborated below.

Dimension	Description
Flexible	Orchestration is flexible to overcome amateur ensembles' unpredictable line-up.
Ambitious	Arrangers use the musical affordances of the ensemble within its constraints to create interesting, challenging, expressive, and meaningful music.
Clear	Music and notation are fit for the players' musical experience and expectations.
Enjoyable	Orchestration is a puzzle of potentially positive musical playing experiences, intentionally distributed across the performers.
Tailor-made	The music is tailor-made to the constraints and affordances of the instrument as embodied by the performer.
Safe	Musical secureness and psychological safety are intertwined by balancing embeddedness and exposure.

Table 2. The six dimensions of the FACETS-framework of performer-oriented orchestration for large student and amateur ensembles

Flexible

Orchestration is flexible to overcome amateur ensembles' unpredictable line-ups. Instruments or parts can be missing, simply because there are no ensemble members playing those instruments, or they are absent for the week. In the case of percussion, a player might be present but the instrument may be lacking (e.g. a fourth timpano, a celesta, or a marimba). Adding flexibility to the score can be deferred to the final phases of a composition process:

You first write your piece as you think it should be, and then go through it again from the perspective: suppose that he's not there, how does that impact the piece? It's often just details, that you have to provide an extra line somewhere. Sometimes you have to look a bit for someone who's still available, and sometimes you have to give and take a bit, but that's part of the game. (Participant 6)

Part and section categories

Other arrangers seem to have categorized the instruments, parts, and players in terms of reliability and use this estimate throughout the process. Some are considered their mainstays: these instruments are always there, sometimes even abundantly, have players with a sufficient level, and can be relied upon. Examples include flutes, clarinets, violins, trumpets, cellos, as well as a trust in string section leaders. Other, "bottleneck" instruments are expected to be underrepresented or absent, or played by someone who performs below the ensemble average. Examples are oboe, bassoon, French horn, viola, and – particularly in youth ensembles – most bass instruments. A special case is the alto clarinet part, inevitably present in many wind band arrangements, but considered a "ghost part" at all but the highest levels because the instrument is almost never there. Participant 8 discussed the scoring of a low-register melody in an intermediately easy work (grade 2.5) for wind band as follows:

So who can play it? The bassoon, yes, he plays it; the alto clarinet – okay, who will never be there, but he also plays it; the bass clarinet, who may be there, but not sure, he will play

it too; tenor saxophone; baritone saxophone – he probably isn't there either, but if he is, he's there; all the euphoniums ... So all the heavy guys that you can possibly find. And then [sings a motive] the accompaniment is in all the rest of the band. So it's always a bit of a gamble, you never know... But if you make it thick enough, it should definitely work in the places where it is needed. (Participant 8)

Within an instrument section, arrangers also write differently for the first and second (and, if applicable, third and fourth) parts. While the first part can contain challenging solos and higher notes, the lower parts are written more cautiously with reduced registers (see also 'Safe').

Supportive doublings

Arrangers use several strategies to provide flexibility. They can write supportive doublings by replicating a musical element in another part although there is no immediate musical need for this additional sound. Sometimes this is done in small cue notes, so players know they should only jump in when the intended player is not there. In some arrangements, a few parts (e.g. piccolo, trombone 2, piano) are marked as "optional", which means that the arranger has only given them musical material that is nice to have, but can be omitted. At lower levels, bass parts (e.g. bassoon, baritone saxophone, and bass clarinet) can be doubled almost systematically to compensate for the almost certain lack of bass instruments. A few arrangers mention the specific affordances of a piano player in lower-level and intermediate ensembles, considered a "Jack of all trades" (Participant 6) who can reinforce low parts, provide drive, extra sound, and help intonation.

An extreme example of flexibility is the so-called "flex-arrangements" for lower-level ensembles, in which four or five parts (and percussion) are provided in different transpositions, which are to be distributed by the conductor. Here, (a basic form of) orchestration is fully handed over to the conductor.

Ambitious

Arrangers use the musical affordances of the ensemble within its constraints to create interesting, challenging, expressive, and meaningful music. They balance esthetical (or music-oriented) and pedagogical (or performer-oriented) considerations in different ways. This process is sometimes described as "holding back", and at other times embraced in a more positive way:

I think the biggest challenge is that you can use those limitations in a way that it doesn't feel like a constraint, but that you're actually trying to get the most out of the possibilities that a certain level has. (Participant 1)

Challenging musical understanding

Arrangers feel an obligation to write music that is interesting for the musicians of the intended ensemble or level. This can be a challenge, as illustrated by Participant 8:

I also think that, certainly at a lower level ... it is perhaps a bit "wrong", that I rather easily go to very understandable things, sometimes almost simple, because I think that this target group, which is often the case, can no longer handle it. But sometimes you do find ... you should not underestimate them either. (Participant 8)

Participant 6 advocates that, for amateurs, "it is better to make it easier and perhaps turn

your heart into a stone, musically.” Sometimes composers try to write music in an idiom (e.g. film music) that the musicians will like. On the other hand, Participant 2 does not allow himself to write entirely to the performers’ taste:

I condemn a lot of composers for lower levels that they always just write B flat major with I – IV – V [basic chord progressions] - things, with a pretty theme and ... [...] The challenge is to still create complex sounds with separate parts that are easy. But always balanced with “I still want to get them along.” (Participant 2)

Most composers balance esthetical and pedagogical interests from the very beginning of the creative process, and for all of them musical meaning and expression are guiding principles throughout. According to Participant 7, the music should be “interesting for everyone and challenging enough, so certainly not too easy.” As such, musical ambition does not only emerge from a commitment to an aesthetically pleasing sound, but even more strongly from the carefully calibrated degree of challenge for the performers, clearly resonating with Vygotsky’s *zone of proximal development*. Challenge can relate to technical aspects, but also to musical understanding gained by playing music in a sufficiently ambitious composition style. Some arrangers want to familiarize the performers with certain genres, colours, time signatures or techniques. As a result of these ambitions, some arrangers report that they often underestimate the difficulty of their own work.

Many arrangers also consider playing in an amateur ensemble as a gateway to performing real classical music. Participant 8 justifies creating simplified versions of the canon by describing them as a gateway for young performers to access the real music later on.

At the time, when I played in a local wind band and sang in a local choir, I found many [simplified arrangements] incredibly beautiful, I remember, I found them unspeakably beautiful. [...] This way these kids get to know literature that they will probably like and appreciate, and if they get the chance later to hear the full work, they’ll have some kind of [...] *Aha-Erlebnis*. (Participant 8)

The spark of the original

When selecting music, the arrangers look for music that carries the potential to be performed by the new ensemble type without losing its original spark. If the original is also an ensemble piece, they are inclined to stick to the original orchestration as much as possible, particularly with classical music. They find respect for the original scoring valuable, as indicated by Participant 5: “you try to stay true to the original and still mold it into the most optimal version for your ensemble.” Some feel that being able to play “the original” provides musicians with a motivating feeling of competence “because professional musicians play this as well” (Participant 7).

Simplifications and imperfection

For the same reason, they avoid simplifications unless they are really necessary, which can still often be the case. Frequently mentioned strategies for simplification are reducing rhythmic complexity or writing in another (often lower) octave:

For example, you can do a figure with less notes, or write a figure only in the first voice [...]. Or make it shorter, so that you still have the energy of “tacatata DAAM!”, for example, for a while, instead of the full “trrrrrrrrrAM!”. (Participant 1)

Despite their ambition, arrangers know that the result will never be perfect. They anticipate imperfections such as sluggish execution of quick or sharp articulations, or flattened dynamics (e.g. *pp* will be performed as *p* or *mp*).

Clear

Music and notation are fit for the players' musical experience and expectations. Although arrangers talk more frequently about constraints in relation to mastering instruments, they also address the varying or limited musical experience and knowledge of their musicians.

Intuitive notations

Arrangers aim at intuitive notation. Rhythms are notated as readable as possible within familiar time signatures. Issues usually left to the performers, such as bowings, breathings, and fingerings, are sometimes made explicit at certain points or throughout the score. Key signatures with many accidentals are avoided, and when many accidentals are at play, arrangers might resort to an open key signature. Symbols are preferred over text.

Intuitive musical structures

Arrangers also build transparent musical structures. They attribute clear musical roles to the players and limit the number of layers in the musical texture. Instrument sections and groups are more often treated as chunks with a averagely lower degree of independence for each part. They give musicians entry points that are as logical as possible, e.g. by letting multiple parts start together. Arrangers avoid combining difficulties in different parameters at the same time. To reduce the cognitive load, they write ideas or rhythms that stay identical for at least a few bars. For younger players, large contrasts in character and dynamics, and clear emotions or stories are recommended:

I find it essential, also didactically essential, that when someone plays, that what is being played means something [to them]. And I know, with young children, that a narrative, or a programmatic ... whatever you may call it, can very often help with that. To add a certain feeling, or a certain effect, or a certain expression. (Participant 4)

Enjoyable

Orchestration is a puzzle of potentially positive musical playing experiences, intentionally distributed across the performers. As Participant 6 states: "I write differently when I write for amateurs than when I write for professionals. [...] With amateurs, you assume that people first and foremost want to enjoy it."

Melody first

Arrangers primarily reach enjoyability through the scoring of melodies. They state in unison that all performers like to play melodies. Consequently, they write melodic passages not only for the high-pitched instruments that usually take this role (e.g. first violins or cornets), but also for those in the middle and lower register (e.g. French horns, or cellos and double basses). Melodies are often the first elements to be distributed across the score while orchestrating:

Because I am someone who also varies a lot in the alternation of who plays the melody [...]. Those colour differences are very nice to play with, because I believe they make the music richer and more interesting too. Plus, it's also important in a pedagogical sense, so every

musician also has a feeling like: “Yes, I’ve got something to do here.” That he doesn’t go home and say: “Mmh yeah, I’ve been there playing accompaniments all the time, bwaargh, come on!”, you know, like that. (Participant 1)

Maximize playing opportunities

Arrangers maximize playing opportunities, ensuring that everyone has enough to play. They avoid long rests, which require special attention for percussion and brass, who are often scored only at certain points in the score for their additional colour or dynamics. They move musical material around between instrument groups for more sound variation as well as a more equal division. They might add extra instruments that support or double another part to give them the opportunity to play along. In extreme cases and for beginning players, this can even result in writing virtually inaudible passages, for example an easy harp part during a loud passage which gets lost in the orchestra tutti, but this way the harpist still gets a chance to play along. Arrangers try to develop only those solutions which do not harm the orchestra sound by clogging its transparency. Participant 2 refers to the inclusive division of melodies, which also creates more flexibility, as “social orchestration”:

So that’s again social orchestration. [...] Even if a musical part is not there, you always have someone [who does play it]. For example, sometimes you don’t have French horns, but the saxophones always double that part, so you always have all the parts. [...] A second point with doubling is that you can let everyone participate actively all the time. (Participant 2)

The way musical flexibility is mentioned first, and enjoyability as a second effect, reflects a common tendency to also rely on music-oriented arguments when mentioning pedagogical considerations such as enjoyability or psychological safety (see also ‘Safe’).

Keeping the performer’s experience in mind also means that parts should provide sufficient variation. To do so, arrangers try to use the “whole” instrument, and not only the most stereotypical register or techniques. Repetitive passages or accompaniment patterns can be tweaked to include more variation. A salient quote by Participant 3 illustrates this point, and also illustrates how arrangers base their know-how not only on their experience as an arranger and a conductor, but also as a performing musician:

I once played a piece in wind band, and it was just off beats in the French horns through the whole piece. So “mh pah mh pah mh pah ...” And I can assure you, after five minutes, you’re sitting there like a frog, puffed up. All those instruments around you are playing really beautiful melodies, and you “mh pah mh pah mh pah” are pumping up an air mattress the whole piece. That probably stayed with me somehow. (Participant 3)

Finally, arrangers stress that musicians need to be able to play loudly and freely to produce a beautiful, interesting and rewarding sound.

Tailor-made

The music is tailor-made to the constraints and affordances of the instrument as embodied by the performer. Or, as Participant 1 states, “look at each instrument to see what its strengths are, what its limitations are, and from there just conceive that part.”

Attuned to instrument and performer

Arrangers adjust parts to the instruments in the hands of performers with the technical skills

that can be expected at the level for which they write. Participant 4 puts it this way: “If you, in a technical sense, stay close to what they’re able to do, also in terms of sound, then it just sounds smoother, and they also have the feeling that it plays more smoothly.”

Generally, they write in key signatures that fit the instruments well, preferring ‘flat’ keys for brass, but ‘sharp’ keys for strings. They exploit easy fingering combinations and avoid difficult leaps. Participant 1 explains a notably short figure in the woodwinds as follows: “Technically it is also deliberately kept easy, it is just a matter of lifting your finger and putting it back, isn’t it?”

Arrangers also respect the performers’ physical limits, by avoiding overly long pieces, long and high passages for wind players, and providing enough rests. They write mainly within the most comfortable register of the instrument, and respect its natural dynamics, sometimes moving passages an octave up or down to do so. These considerations require an elaborate and specific knowledge of instrumentation, for which even experienced arrangers often still consult instrument specialists.

One size fits all?

When writing for a specific ensemble, arrangers actively coordinate the orchestration with the ensemble they write for, for instance using strong sections or soloists to their advantage. However, arrangers do not go as far as taking the musicians’ personal preferences into account. Many of them also avoid writing an arrangement that will only work for one ensemble, especially those who publish and sell their sheet music afterwards.

Publisher guidelines play an important role in tailor-made writing because they determine quite precisely which instruments, ranges, or even rhythmical figures and metres can be used at each level. All arrangers who publish their music with publishers that have such guidelines experience a friction between the rigidity of these guidelines and their artistic freedom. Minor transgressions of these guidelines “when the music dictates it” are common. Since international publisher guidelines are usually aimed at more homogeneous school orchestras in North America, the arrangers do not believe they always fit the varying levels in amateur ensembles in Europe:

For grade three ... that’s on the edge The highest note is a c [...] According to the American system, this is a *njet*. There you are not allowed to write that high, there it’s probably *sol* or *la* for grade three. [...] We stick a little less to ... And in such a moment, it’s also full gas, [...] in such orchestras there’s always someone who does play that note well, so ... (Participant 2)

It becomes clear that, on an amateur level, minor issues in traditional instrumentation handbooks can be aggravated, and that additional constraints arise, often to overcome challenges that conductors encounter during rehearsal. We illustrate this point with two examples.

Example 1: Oboe

Instrumentation handbooks warn that the lowest register of the oboe is “thick, heavy” (Adler, 2016, p. 195), and that the higher notes are “thin but clear” (*ibid*). Arrangers for amateurs are cautious of this thick- and thinness and are likely to avoid these registers altogether. The oboe is also considered a “bottleneck” instrument, for which too few or weak players might

be available, and that might need to be considered optional or cued elsewhere. Overall, arrangers resort to more careful writing for the oboe: they grant solos sparingly and are mindful of its heavy and sluggish attack and penetrating sound that can make it too dominant. Participant 6 even considers the oboists “dangerous”, and compares them to flutes and clarinets as such:

The flutists are of course the jacks of all trades, they are often the most virtuoso, as well as the clarinets. Amateur oboists are dangerous in terms of articulations, fast attacks, and intonations. [...] Often, that’s a bit more delicate. With oboists I am often a bit milder, if they are amateurs. (Participant 6)

Example 2: Percussion

Percussion presents separate issues. A major issue is the available instruments in the rehearsal room. Often, not all percussionists are educated as percussionists, resulting in poor technical skills. A third common issue is parts that barely contain notes. Arrangers then give them more notes so they can play along. On the other hand, percussion also affords support for other parts, higher pitches than the other instruments, a large variation in timbre, and rhythmical stability. A few times, a technique is described where percussion provides drive and complexity to the music, which allows the other parts to be kept simple.

Safe

Musical secureness and psychological safety are intertwined by balancing embeddedness and exposure. Musical secureness is guaranteed by embedding less refined sounds within in the ensemble to obscure them from the listener. This goes hand in hand with psychological safety for musicians who do not want to feel exposed while playing.

Embedding

Supportive doublings can be used so performers on different parts each feel supported. In this context, instrument families in the same register (e.g. French horns and trombones; clarinets and violas) are sometimes combined even if the additional timbre is not necessary. Moreover, Participant 7 describes how she “covers up” some parts, obscuring their sound by supportive doubling:

If you know they’re going to be slippery and farty and all that kind of stuff, you cover that up by writing something extra elsewhere. Then they’re still playing their part, but you let it dissolve a bit into the whole. [...] So I would give them those challenges as far as possible, but make sure they’re not naked. (Participant 7)

Supportive doubling is also a risk, says Participant 2:

Because then you get like this typical American sound, that it all sounds the same, so I’m not in favour of that at all. Then you always get a fish-nor-fowl mixture, always a bit thick. (Participant 2)

It needs to be carefully balanced with a concern for a transparent musical texture that highlights pure timbres. Knowledge of orchestration is important to avoid blends that result in a dissatisfying sound, as explained by Participant 1:

Orchestrating in families, I think, is always very rewarding, because it always works. Another [option] are French horns, for example: you can combine them with everything

[...]. Trumpets are dangerous, I believe, they don't mix well with everything. For example, trumpet with clarinet is such a combination that is not so strong, but it's something that's often combined because of the position [i.e. their overlapping register]. (Participant 1)

Challenges and solos

But not all musicians need to feel embedded all the time. "Mainstay" parts (see "Flexible") are expected to perform their musical responsibilities without feeling unsafe. Moreover, for moderate to strong players, the opportunity to play feasible and not-too-long soloistic passages is considered an added value. However, different ensembles have strong players on different parts, and consequently many such soloistic passages are cued in other parts to provide flexibility to the conductor. A solo can also be used strategically for passages that are too demanding for all musicians playing the same part, by giving it only to the strongest musician.

[Playing solistically] has to be triggered every now and then, but [I find it important] that they are in a safe environment overall of "togetherness", learning to play together, being an orchestra musician together. And that it is in this way a process of slowly moving towards that typical solo-instrument. (Participant 7)

Participant 7 implies a trajectory of growth embedded in the ensemble, from the embedded player in the third part to the soloist of part 1.

Many respondents refer to a concern for loss of face for musicians if additional adaptations to the score, such as playing an octave lower or passing on a solo, are made during rehearsal in the presence of other musicians:

For example, with the flute: just write the line an octave lower [than the original] and add an optional octava. [...] Then you give the conductor the opportunity to invite the flutist: "you can play it an octave lower," without the flutist necessarily losing face. Because if you write it an octave higher and the conductor has to ask the flutist: "just play it an octave lower," it's as if they cannot play what's written ... (Participant 6)

DISCUSSION

A decreasing orientation on the performer

The aim of our study was to develop principles of orchestration for amateur and student performers in large instrumental amateur ensembles. Our analysis resulted in a grounded theory with six FACETS of orchestration (Flexible, Ambitious, Clear, Enjoyable, Tailor-Made, and Safe). Together, they illustrate the rich and distinctive competence and artistry of those who write for students and amateurs. Rather than focusing on specific techniques, we aimed to formulate overarching dimensions that live up to the expectations that "principles of orchestration" (a term coined by Rimsky-Korsakov, 1913) imply. In our findings, we included issues that relate not only to the division of musical ideas among the instruments, but also to the shaping of these ideas themselves. Indeed, for most participants, an orientation towards the performer fundamentally impacts the composition process, rather than being a finishing touch of material distribution at the end.

However, this balance also depends on the level of the ensemble for which they are writing. Arrangers consider the FACETS above especially relevant for small, young, beginner, and intermediate ensembles. As the musical level rises, ensembles are expected to be larger, more stable, and face fewer performer constraints in addition to the technical limitations of

the instrument as prescribed by traditional instrumentation. Most of the issues in our framework made a *diminuendo* at an advanced level, and for top-end ensembles, most FACETS became less relevant to the arrangers:

And that's kind of the rule here: the lower the level, the more you have to double them and cover them up. The shorter the pieces, the smaller the demands, the shorter the sentences, the less high, the less low, the less this, the less that, and so on. So the less complications there are. From a certain level you have to gradually step away from that.
(Participant 8)

Rehearsal-centeredness

The framework suggests that arrangements are not only aimed at performance of the music, but also, and perhaps foremost, at its rehearsal. Considering the rehearsal as a musical goal in itself adds a participatory dimension to the otherwise performative practice of orchestra playing (Turino, 2008). Rehearsal becomes a goal in itself, necessitating repertoire that is not only interesting to perform but also fulfilling to rehearse (Buelens et al., 2024; Elliott & Silverman, 2014). The FACETS-framework places greater emphasis on positive performer experience than most of the literature, including psychological safety, enjoyability, and clarity as crucial parameters.

As a central element of this participatory dimension, a sense of *togetherness* is present throughout several parts of the framework. Such a sense of togetherness has already been described in regard to music performance (Bishop & Keller, 2022) and community music (Schiavio et al., 2019). Keller describes togetherness as “a state of affective-motor resonance, [...] the enjoyable, intrinsically rewarding experience of being in social synchrony with others” (Keller et al., 2014 as cited in Bishop & Keller, 2022, p. 430), for which performing music together can be a means. Bons (2024) used the German equivalent *Miteinander* to describe social and musical manifestations of togetherness in amateur bands. Our framework aligns with such a view that individual, social, and musical meaningfulness can go hand in hand in amateur ensembles, which is likely part of their recipe for success.

The score as a musical-pedagogical actor

Out of the eight participants, Participant 4 was the only one who conceived his work, which was written for a curriculum-attuned music school ensemble, as “educational music”. All other participants described their practice as primarily artistic, though clearly coloured by pedagogical considerations. Arrangers did not uninvitedly embrace labels such as “educational” except for their most low-level works for beginning ensembles.

Nevertheless, the FACETS-framework demonstrates that a score, primarily being a work of art, also conceals pedagogical intentions. Arrangers practice pedagogy through their music, and devise their scores as musical-pedagogical actors in the ensemble (Buelens et al., 2024). The arrangers' pedagogical intentions are not disclosed to the performer and remain disguised in the finished product of the score. Both the arrangers' pedagogical intentions and the performers' learning remain implicit, with the attention of an amateur ensemble being aimed at “playing music” rather than “learning to perform” (Folkestad, 2006). The monopoly on the craftsmanship needed to write a large score, and the knowledge of its pedagogical dimensions, can help to explain why democratization of decision-making is so hard to achieve in large ensembles. Further, a good understanding of this tacit pedagogical dimension in the

musical score could be valuable in the ongoing debate on the (supposedly) outdated and un-educational nature of large ensemble playing today (e.g. Allsup & Benedict, 2008; Kratus, 2007; Mantie, 2012).

CONCLUSIONS AND FUTURE PERSPECTIVES

While orchestration is usually described through individual accounts, our framework synthesizes arrangers' practitioner knowledge into six generic FACETS that bear relevance to a broad group of teachers, conductors, performers, researchers, and, perhaps, publishers. For seasoned performers, many of whom are also conductors or teachers, it can provide a point of reference to write high-quality music for students and performers at a level they surpassed long ago. It appears to us a much-needed extension to orchestration courses in music teacher education which often only address traditional professional-oriented writing. We have used the framework ourselves to precede arrangement assignments for music teacher students.

FACETS could be used as a framework for music arrangement and composition, but also perhaps for music analysis. Conductors could also rely on these principles to inform their repertoire selection. We deliberately designed our study and framework to fit both bands and orchestras, but FACETS such as ambition, enjoyability, safety, and clarity are probably equally valid when scoring for choirs as well. We wonder what our dimensions could mean to professional classical ensemble musicians, since they are also at risk for aspects such as boredom, injury, and anxiety (Vermeersch et al., 2023).

Our study only included participants from Flanders, which, despite its small size, has a vibrant large ensemble culture. The instrument line-up of the orchestra and most common band types adhere to very comparable standards internationally. The canonization of symphonic repertoire and the internationalization of repertoire through several publishers adds to this international similarity. Our results overlap significantly with the views of Canadian composers as mapped by Andrews and colleagues (Andrews, 2009, 2013; Duncan & Andrews, 2015; Giesbrecht & Andrews, 2021; Mielke & Andrews, 2022; Swanson, 2016). Nevertheless, several differences between European and North American contexts have emerged throughout our text and should not be overlooked.

Although this study focused on scores, music-making in a large ensemble does not stop once the score is ready; on the contrary, it is only the beginning. The interactions with the orchestrated score during the following rehearsals also ignite our interest. Such research could address the conductors' perspectives, but we would be even more curious to explore the views of the student and amateur performers. Like orchestration, lived experience research in music performance traditionally focuses on experts rather than amateurs (Holmes & Holmes, 2013). Research into the lived experiences of amateur music groups should reconcile individual meaning-making with group dynamics, for example in the development of individual as well as collective competence (Bonshor, 2020). The musical-pedagogical impact of a score within the complex dynamics of a music ensemble would be the pudding to our proof.

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management. Since both frameworks address entirely different fields, we are confident that both models can and will coexist peacefully.

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