Music Notation and Distributed Creativity: The Textility of Score Annotation

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One of the most important developments in recent music scholarship has been a turn towards performance as the defining element of music, afforded by a deconstruction of the notion of the musical "work" and its questioning of the centrality of notation in musicology (Goehr 2007). The traditional work-centred approach locates music in the text rather

This chapter is a revised version of an article that originally appeared in *Music & Letters* (Payne and Schuiling 2017). In this amended version, we have rewritten the text for a wider audience, drawing a parallel between musicological research on musicians' score annotations and recent research on annotations in the notebooks of theatre directors. We have also embedded our discussion in a broader context of media studies, exploring the paradigm shift of the transmission of knowledge in a digital era and by explaining technical musicological terms.

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than in the interactive and creative processes of performance, and has led to discourse and practice being dominated by, in Nicholas Cook's words (2004, 21), the "ocularcentric identification of the score with what the music is". Alongside the questions of ontology to which Cook refers,[1] the work-centred approach suggests a hierarchy in which the composer is seen as the primary creative agent rather than the performer, in which as Georgina Born (2005, 34) writes: "the composer-hero stands over the interpreter, conductor over instrumentalist, interpreter over listener, just as the work ideal authorises and supervises the score, which supervises performance, which supervises reception".

In this regard, musicology (like several other disciplines) has attempted to negotiate what David Bleich (2013, 11) calls the "sacralisation of texts" that has characterized the transmission of knowledge since the medieval university, or the modern "purification" of scientific knowledge diagnosed by Bruno Latour (1993, 11). Scores have been understood as objective representations of music, and consequently "music" has come to be conceptualized in terms of those elements that have a more direct relationship to notation (i.e. pitch and rhythm) rather than less "tangible" attributes such as timbre (see, e.g., Doğantan-Dack 2011), or indeed the creative skills and interaction of musicians. As Gary Tomlinson (2012) has shown, this distinction between the "specifically musical" and the physical, emotional and social qualities of musical practice was part of a late eighteenth-century discourse about Western exclusivity, wherein alphabetism was taken as a sign of Western progress, and similarly, the specificity of a culture's notation system was seen as a sign of its musical sophistication.

An approach that saw the musical text as a form of technology rather than a transparent representation of an abstract, ideal object would be more compatible with the performance-oriented scholarship proposed by Cook, while simultaneously troubling the problematic relation between writing and humanism as signalled by Tomlinson. In recent work in comparative literature and media studies, the influence of post-humanist philosophy has meant that such associations of writing with human rationality are being reconsidered. The material qualities of written communication are no longer seen to be accidental to its content, but crucial for understanding the way it informs and constructs reading practices, which are consequently no longer conceptualized as purely cognitive acts, but as embodied and social activities.[2] N. Katherine Hayles, one of the foremost authors on literature and posthumanism, argues that for too long "print

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literature was widely regarded as not having a body, only a speaking mind" and that "literary theory and criticism have been imbued with assumptions specific to print" (2002, 32–33). In the wake of such arguments, various scholars have addressed what Tore Rye Andersen (2015, 122) calls the "body language" of texts, and in such work particular editions or versions have come to be regarded as *performances* in their own right rather than derivations of an ideal original.

Music notation, with its double life as both a description of sound and a prescription for action (Kanno 2007), makes this reconsideration of the nature of texts particularly apposite. Not only is a score itself a performance of musical ideas (apropos Andersen's definition), but its purpose is also to give rise to new performances. Its material qualities do not just influence the musical ideas expressed *to performers*, but also the creative, social and embodied processes whereby these musical ideas are expressed *in performance*. Music, as an art form "between process and product" (Cook 2001), thus draws attention to the processes of remediation and distribution by which it comes into existence, and rather than a text *or* an act emerges as a "paradigmatic multiply-mediated, immaterial and material, fluid quasi-object, in which subjects and objects collide and intermingle" (Born 2005, 7).

This chapter investigates how *annotations* play a role in creative processes in rehearsal and performance in two apparently contrasting musical practices. It is rare to find a performer's part that does not contain annotation in some form, and performers spend varying degrees of time working with their scores, contributing additional markings, cues and amendments, sometimes so much so that their working parts become "elaborate hybrids" (Bayley and Heyde 2017, 83) that bear little resemblance to the original text. Through score annotation performers continually make new versions or "performances" of their scores in preparation for their own performance, suggesting that the relation between text and act is one of fluidity rather than opposition.

Our argument thus reconsiders the role of the score, not as the representation of an abstract structure but as a concrete material object, to move beyond a paradigm that opposes notated permanence to performed and/or improvised transience. Is it possible to describe how scores can function as sources of creative knowledge for performers, while avoiding the discourse of "reproduction" and its associated "idea that performance means bringing out something that is already there in the score, composed into it and just waiting to be released by the performer" (Cook

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2013, 338)? Moreover, can notation be understood not just as an object of cognition, but as an integral element of the forms of social and creative interactions that are now seen to characterize performance?

We present case study material from our respective research projects: Payne's (2015) investigation of the creative processes of performance undertaken with clarinettists and their collaborators; and Schuiling's (2018) work with improvising collective the Instant Composers Pool Orchestra. Both studies employed observational methods drawn from ethnography to investigate the "real-world" contexts and attributes of live music-making. The former case study is an example of contemporary Western art music, where performers are often highly specialized in certain instruments and techniques, and in which it is common to work together with composers in the genesis and preparation of a piece. The latter represents a different tradition, in which performers with a background in unprepared and improvised music have started to use composed elements for the sake of stylistic diversity and to create novel creative possibilities. In these two practices, the relationship between notation and performance is very different, as is the nature of rehearsal and preparation. In one, performers use notation as a basis for preparing a more or less "definitive" version of that piece, while in the other a piece might be introduced into a variety of musical situations already taking place, and its performance might take very different forms in different circumstances. The differences between the two practices should not be exaggerated, however, since our comparison of a "score-based" performance practice with an "improvisatory" one is partly intended to complicate the assumptions that underpin these terms.

Most importantly, we suggest that annotations are not just additions to already existing and finished "works", but an integral part of the creative process itself. Timmy De Laet, Edith Cassiers and Luk van den Dries (2015) take a similar position in their research on the notebooks of theatre directors Jan Fabre and Jan Lauwers, showing how annotation combines imaginative, interpretive and pragmatic concerns in the process proceeding "from the realm of imagination to the reality of the stage" (De Laet et al. 2015, 43). Crucially, they argue that a focus on annotation might serve as a reconsideration of the role of texts as technologies in the "post-dramatic theatre" in which the dramatic text "no longer functions as the primary resource for theatrical creation" (44). Rather, they embed annotation in the processes of externalization that philosopher Andy Clark

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(2008) has described as necessary components of cognition in his hypothesis of the "extended mind", whereby cognition is not restrained to the workings of the brain, but distributed across the reciprocal relationship between an organism and its environment. In music scholarship, too, there is a growing body of research in a similar direction, investigating the multi-layered forms of social and distributed creativity inherent in the practical processes of performance.[3]

Attending to the distributed nature of music-making bears not only on ontological matters, but also on concepts of musical creativity. In a paper entitled "The Textility of Making", anthropologist Tim Ingold (2010) criticizes the *hylomorphism* inherent in much thinking about creativity: the idea that to produce means to apply an already existing form to shapeless matter. The work-concept in musicology is a prime example of hylomorphic thinking, as it detaches and hypostasizes musical form from its materials. To challenge this understanding of material engagement, Ingold invokes the practice of weaving: the weaver does not shape threads into a pre-established form, but lets this form emerge by binding together separate threads. That is to say, even with a pre-established design, the process of making is not so much a matter of "moulding" the material into shape, but of negotiating the motion and the tension of the threads, the various elements of the loom and the particular characteristics of the fabric. What Ingold calls the "textility" of creative practice is meant to shift attention to the *materials* used in creative work, and the "tactile and sensuous knowledge of line and surface" (2010, 92) that comes with handling them.

In this contribution, we propose an approach in which musical notation is not understood primarily as a formal model but as one of the materials with which musicians work. As a prime example of the change that the score can undergo in the creative process, a study of annotation will allow for a consideration of notation in its *textility* rather than its *textuality*. An important thread running through our discussion is the tension, briefly alluded to above, between the descriptive and prescriptive functions of music notation (Kanno 2007), each associated with their own respective ontology of music in terms of either product or process. The annotations that performers make frequently intervene in the descriptive aspect of notation, and it is this physical and tactile engagement with the descriptive side of music that reveals what the textility of music notation signifies. Cook has referred to the two functions and their ontologies as "two sides of the musical fabric" (1990, 122) and "complementary

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strands of the twisted braid we call performance" (2001, 20). Performers' annotations, then, may rightly be considered as weaving one into the other.

Case Study 1: *To My Father* for Clarinet and Piano

Annotations can serve as material[4] traces of the collaborative processes of composers and performers. While performers may consider most of their annotations as negotiations of "technical" issues (such as fingering or bowing indications) unrelated to the "compositional" decisions of the composer, our following discussion suggests that this distinction between composer and "executant" is somewhat artificial, and that these technical considerations are in reality part of the fluid and reciprocal relationships between composers, performers, instruments and scores, that constitute the creative process of music-making. Technical and conceptual additions to the score can thus be understood as a way in which performers develop an intimacy with their material and temporarily take ownership of the music. In this way, they create the musical meaning in performance rather than bringing out a meaning already contained in the score.

The focus of this case study is the preparation, by clarinettists Lucy Downer and Margaret Archibald, of a suite of five pieces called *To My Father* for basset clarinet and piano (2014) composed by Nick Planas.[5] Downer and Planas' collaboration was documented from a first workshop meeting in October 2013, where Downer experimented with techniques for Planas, to the three rehearsals and premiere of the piece in March 2014. A second perspective is provided by Archibald, who performed movements from the piece at around the same time as Downer. A particular point of focus in this discussion is the reciprocal relationship between musician, score and instrument: the basset clarinet is a relatively uncommon instrument, a variation on the standard soprano clarinet extended with a slightly lower range. This alteration presents first-time performers of the instrument with an unfamiliar interface, to which they must adapt their practical skills—indeed, Downer had not played the instrument before. The supplementary keywork that operates the lower range, moreover, is not uniform across different basset clarinets, and so performers cannot necessarily rely on previously acquired fingering configurations. In this particular case study then, the basset clarinet's agentic capacity was rendered more explicit than if a more commonplace instrument had been used.

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Downer described her role in the collaboration as being largely practically directed, in terms of "technically *how* to create what Nick wanted on the clarinet, rather than actually *what* to create in the first place".[6] Planas' view seemed to correspond with Downer's, in that he came to their workshop seeking to find out "What was doable and what wasn't"[7] rather than inviting Downer to contribute her own compositional material. Planas has composed for the clarinet on a number of occasions in the past, but nevertheless, he expressed his reliance on Downer's knowledge of extended instrumental techniques for the movement "Clouds" in particular, stating "I know what I want to get but I don't know how to get it. So it'll be more a case of Lucy sitting in here going 'Well I could do this, or I could do that' and me saying 'Yes I like that. No I don't like that'".[8] As a consequence, their workshop was composer-led and focussed largely on considerations of technical detail. Planas sent Downer a "trial sheet" for the movement, which presented working ideas for "Clouds". Downer's interactions with this material open up questions of creative ownership within the collaboration, with the instrument itself also playing a crucial role. Before the workshop, she had worked through the sheet and recorded her choices of microtonal fingerings for each note. An extract from her copy is shown in Example 1 (Fig. 1).

The trial sheet served two functions: first as a tool, both to ascertain whether Planas' sonic aim could be produced effectively and to act as a "key" to learning the passages (Downer remarked that notating the fingerings helped her to remember them); it could also be understood as fulfilling the role of "workbench", with the notation becoming an object of negotiation between performer and composer in the collaborative process, and a means through which material was worked and reworked into a more "complete" state.

Downer's annotations in Example 1 map her technical relationship to the material at the initial stages of preparing the piece for performance. Interestingly, later on in the workshop she advised Planas to omit fingering suggestions, saying "Usually you'd expect to find them yourself. … The chances are someone else is going to look at that fingering and say 'Oh that doesn't work for me' and ignore it anyway".[9] As well as emphasizing the contingency of such techniques on the particular affordances of the instrument and the individual practice of the performer, her suggestion that the fingering indications should be left out so that other performers may find their own ways of realizing the music assumes the performer's creative agency from the outset of interacting with a score,

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Fig. 1 Example 1: Trial sheet for "Clouds" (bb. 11–14), from "For my Father", by Nick Planas

which Downer seemed to regard as a totally obvious and unproblematic aspect of the performance process. In the example above, the notation was left open in the final version of the score so that each performer could interact with the score on his or her own terms.

This creative engagement between Downer and Planas shows the agency that annotations may have in the shaping of compositional material. But annotations may also be a means of problem-solving, for trying to understand the score's conceptual ambiguities and its implications for the performer's physical relationship to his or her instrument. This is where the aforementioned unfamiliar keywork comes in. As noted above, Downer had not played the basset clarinet before and neither she nor Planas had access to an instrument until the second rehearsal, which took place two days before the premiere. The primary performative challenges that Downer encountered in preparing *To My Father* related to the instrument's mechanism. Downer articulated the difficulties of having to "unlearn" her conventional fingering patterns because of the problems that the keywork presented:

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> I suppose the obvious [technical challenge] would be all the extra notes, … because I didn't know where they were going to be on the instrument. They weren't quite the same as on my bass [clarinet] and I didn't have the alternatives that I'm used to on my bass either. So having to learn where they were, so when I went for c sharp I was accidentally getting c [natural] because I was used to that being where it was.[10]

For Downer, it was not so much a case of having to learn new notes, but that her physical perception of where the notes—or perhaps more importantly, *combinations* of notes—lay on the instrument had been obscured. What David Sudnow (1979, 17) has described as the expert performer's sense of "perfect familiarity" with his or her instrument was disrupted, and Downer had to adapt her embodied patterns of fingerings, acquired and internalized over years of practice, to this new and less ergonomic performance situation. Consequently, she had to direct more conscious attention to the actions of her fingers in order to develop new movements with which she was less familiar.

Downer's adaptation of her skilled practice in response to the basset clarinet's anatomy is made visible by her annotations in response to instances of problematic little finger combinations occurring in "Clouds".[11] She annotated her part with "R" and "L" as reminders of which notes were to be played by which little finger. These served to negotiate challenging fingering configurations, such as the jump performed by her right-hand little finger in the middle of a phrase which needed to be executed with an increase in tempo, or *accelerando* (indicated by the asymmetrical beaming over the notes), as shown in Example 2 (Fig. 2).

Here, Downer's solution prioritized the execution of the notes at the expense of phrasing and tempo, rearticulating the notes that were operated by the same finger, which, while breaking the phrasing that Planas has indicated (the curved line along the bottom of the notes indicates that the notes should be played without separation), allowed her to execute the note more "cleanly". Downer's annotated arrows correspond to her decision to manipulate the tempo of the phrase in order to execute it more effectively: the reversed arrow reminds her to delay the *accelerando* until she has achieved the particularly awkward jump in the middle of the phrase.

In considering the relationship between a performer and a less familiar instrument interface, Archibald's perspective on performing the pieces

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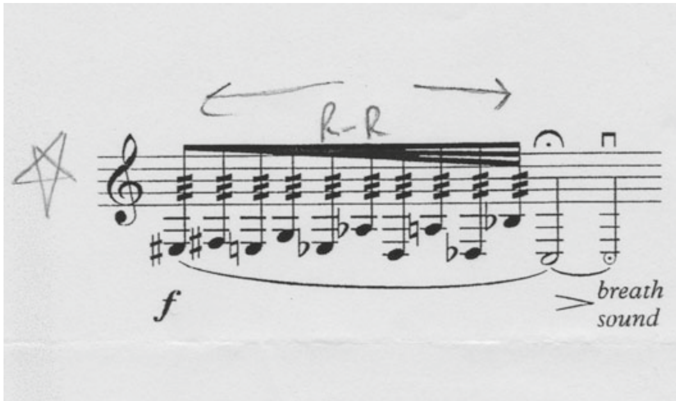

Fig. 2 Example 2: Downer's annotations in response to problematic fingering combinations, section I, "Clouds" (basset clarinet part), from "For my Father", by Nick Planas

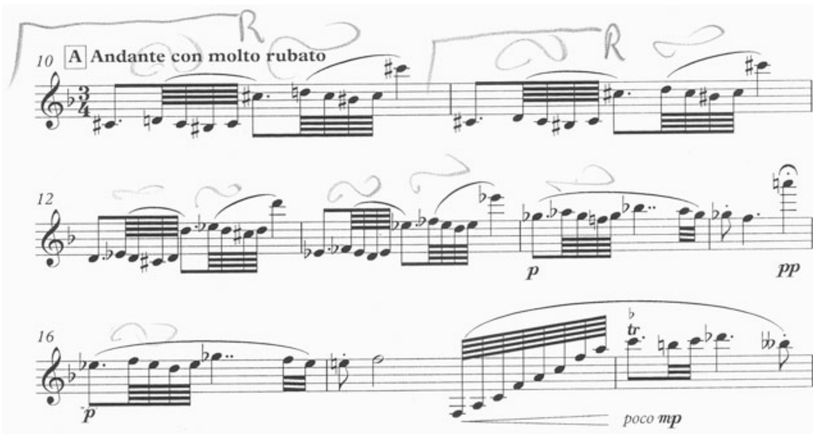

Fig. 3 Example 3: "Czardas" (bb. 10–18), from "For my Father", by Nick Planas, with Archibald's annotations (basset clarinet part)

provides further insights. Her pencilled-in figurations on her part of "Czardas" (Example 3) are gestural reinterpretations of the musical material (Fig. 3).

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Here Planas' notated turns[12] have been transcribed graphically as tildes, with the "R" acting as a reminder to Archibald to place her little finger on the right key in order to achieve a smooth transition to the upper register of the instrument in the rapidly rising phrases she has to play. For Archibald, illustrating the turn in this way communicated the required gesture more effectively than reading the original notation, and allowed her to direct her focus to the physicality of shaping the turns without needing to read the individual pitches. In this way, the visual dimension of the score influenced her temporal shaping of the figures. Indeed, she commented to Planas that "If it were written as a turn, you'd play it faster. … It's because you think 'Oh my god I've got to get all of those notes in', so visually it looks as if it ought to be slower".[13]

Like Downer, Archibald indicated the required coordination of the right- and left-hand little fingers in passages such as bar 61 of the "Czardas" movement as the melody swoops down to the lower register of the instrument, but she also included arrows as reminders of the direction her fingers needed to move in, prompts that she described as "sat nav stuff" to assist with navigating the "geography" of the instrument's keywork.[14] Archibald described the arrows as reminding her:

> That my right finger has to go up there and my left finger has to go down there! [*Laughter*] In a word, it's a map! And this [curved arrow] means, "Tuck your little finger round to the far right- and left-hand bottom corner you twit!" … This [key] is much further away …, so I always miss it. Unless I've recently practised it I always hit one of these, and I need *that* one![15]

The arrows that Archibald describes are another instance of a gestural reinterpretation of the visual relation to musical notation. These kinds of indications will be familiar to most musicians, but while they might be a widespread and everyday aspect of a performer's practice, they point towards the highly refined physical relationship between performers and their instruments, which is usually taken for granted. Although it is likely that Downer and Archibald's annotations became redundant by the point of public performance, they illustrate the ways in which they both grappled with the less familiar properties of their basset clarinets, negotiating their musical knowledge and their embodied relationships to the "geographies" of their instruments. Comparison of the experiences of Downer and Archibald shows that performance involves not merely engaging with

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the material properties of one's tools in a habitual manner, but continually adapting embodied knowledge according to the challenges that arise in the moment of performing *with* the instrument. In sum then, Downer and Archibald's annotations can be understood as making explicit the implicit, or "tacit", forms of knowledge that constitute music-making: both the negotiations of territory between composers and performers, and the bodily negotiations of instrumental interaction.

Case Study 2: The Instant Composers Pool Orchestra

The kinds of annotations discussed in the first case study are a familiar part of the preparation of composed material in the Western art music tradition. The use of notations in the context of improvised music, however, especially their particular use by the Instant Composers Pool (ICP) Orchestra, presents a rather different situation. The ICP Orchestra is based in Amsterdam and was founded in 1967 by pianist and composer Misha Mengelberg, drummer Han Bennink, and reed player and composer Willem Breuker. The latter left the group in 1973, after which the ICP developed from a loose collective of musicians into the ICP Orchestra, although line-ups continued to change.[16] The group still exists and performs regularly, making them one of the longest consistently performing groups in improvised music, and one of the central groups in the genre. The term "instant composition" expresses Mengelberg's conviction that improvisation and composition involve the same forms of musical thinking and that only the production process differs.

As this definition of improvisation in terms of "instant composition" suggests, a central aspect of their musical aesthetic outlook is the questioning of the distinction between composition and improvisation. Part of this questioning is the use of a repertoire of stylistically varied compositions, mainly composed by Mengelberg, that use different notational strategies and compositional indeterminacies to explore different kinds of opportunities for improvisation. The duo of Mengelberg and Bennink became famous for alternating various stylistic idioms in the course of an improvisation. Moreover, their musical interaction was not always geared towards collaboration, but could equally be antagonistic, as the negotiation of such idioms included the subversion or sabotage by one musician of what the other was playing. For the ICP Orchestra, Mengelberg wrote a large repertoire that enabled a performance practice that was similar to

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the iconoclastic practice of the ICP duo, but which would be suitable for a larger group of musicians. Hence, the ICP musicians may start a new piece at any point, juxtapose and combine different pieces, and freely improvise transitions between them.

As such, the ICP's practice subverts the assumption that the notation is a fixing and dominating force that constrains the performers' creativity—a common assumption in improvised music, where improvisation is often described in terms of the musician's freedom and autonomy.[17] ICP Orchestra's saxophonist Tobias Delius argues instead that a free improvisation may get stuck in a particular idiom and that the notated pieces allow for more diversity:

> Many people say that improvisation can be too chaotic and then there is the "guiding hand" of the composer or a piece to bring some sense of structure, but I think it's the other way around. The purpose of the written material is to disrupt a "nice flow" of improvisation. It can create more anarchy than improvisation sometimes. ... The compositions play their own part.[18]

Delius points out the importance of constraints in the creative process, of being challenged when a "flow"[19] encounters some form of resistance, and he suggests that the pieces in the repertoire play an important role in this group dynamic, as they afford the disruption of the direction of a musical situation.

Shortly before each set, a set list is made, containing a selection of this repertoire. The ideal for a set is to play it in its entirety, improvising transitions between items, thus creating an improvised collage of pieces. This way of working requires a conception of the pieces as fluid rather than static objects. Trumpeter Thomas Heberer describes them as follows:

> Quite a few of Misha's pieces … are often very interesting … because on the surface they look very… not demanding and simplistic but then there's … all sorts of options internally which make them fantastic vehicles for improvisation because they are almost like a modular machine, you can see them from so many angles.[20]

Heberer's reference to modular machines, a programming term for software that uses interchangeable parts rather than a single, inflexible monolithic system, implies that these pieces fulfil multiple purposes and adapt to a particular environment. Just like Delius' suggestion that the

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pieces may be used to create stylistic diversity by disrupting the musical situation, Heberer describes them not as "models" that structure and homogenize a performance, but, corresponding to our earlier discussion of the textility as opposed to the textuality of notation, as more flexible materials that contribute to the heterogeneity of creative possibilities.

As Heberer mentions, most of the compositions are quite easy to play from a technical point of view. This fact, coupled with the fact that the musicians are not working towards a definitive version for performance, means that there are comparatively few marginalia in their scores. Still, the ICP's repertoire is central to their way of working and to the forms of creativity inherent in their performance practice, albeit in a very different way than seen in the previous case study. Similarly to the previous case study, the annotations found in the ICP's scores are indicative of their particular ways of working. A closer look at some of them will make this clear.

Example 4 shows the score of *Kneushoorn* ("Krhinoceros" [sic]). In this piece, each part stands more or less on its own, and the musicians can start and stop playing their lines as it progresses, creating different instrumentations and textures. The musicians also often play with the rhythm of the piece, cueing each other to play irregular entries of their parts. In this way, the seemingly closed form becomes a tool for the musicians to play with and challenge each other, by disassembling and assembling the "modules" of the score in the course of performance. This applies not just to the context of performance itself, but also to the longer term as pieces change over time: most obviously, the group's line-up has changed since the piece was composed; not only is there an additional violist, but the trumpet part on the second stave (the main melody of the piece) was given to Wolter Wierbos to play on trombone at some point and Heberer, the current trumpeter who joined the group only later, plays along with the accompaniment in staves three and four instead of playing the melody that was originally assigned to the trumpet.

This brief history shows that ICP's repertoire has a "social life" (Appadurai 1988) of its own that develops in tandem with the group's changing personnel (on the concept of repertoire see also Faulkner and Becker 2009). This can present new challenges in performance, since trombone and trumpet parts are notated differently, and the trumpet part is thus notated in an unfamiliar way for Wierbos. Because of this, Wierbos wrote "begin F" on his copy, making it possible for him to play the rest of this simple melody by ear without having to actually read and

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translate the trumpet part. This is particularly useful in such a context where it is important to be able quickly to play a new phrase yet where the concentration of musicians cannot be overly focussed on the score. Hence, although this particular marking may seem insignificant, it indicates how the scores function in the ICP's practice, and how Wierbos' engagement with the score can be characterized as a process of "weaving" the piece into practice (Fig. 4).

A second example shows a more elaborate annotation, and one that explicitly involves the role of the instrument in this "weaving" process. Example 5 shows Wierbos' part for an arrangement by Michael Moore of Brooks Bowman's *East of the Sun (West of the Moon)*, with position markings added to the score by Wierbos indicating how to physically play a note, comparable to the fingerings discussed in the first case study of this contribution. Wierbos did this more frequently; when Schuiling was discussing a piece by Ab Baars where Wierbos had made similar markings, Baars said: "Is this Wolter's part? Oh… funny, I see all these things here that I hadn't expected from him…!" When asked what he meant, he

Fig. 4 Example 4: Instant Composers Pool Orchestra, *Kneushoorn*, Wierbos' copy with "Begin F" in the margins

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half-jokingly replied “that’s none of your business!”[21] Clearly, such scribbling has a degree of intimacy about it—that is not to say that Wierbos’ annotations are very dear to him, but simply that they are a way of personally negotiating with this material. Example 5 has positions indicated over every single note (indeed, although this excerpt shows just one stave, they are indicated over all the notes in the piece). When asked about this, Wierbos explained:

> I don’t like sharps.
>
> FS: Yes, it’s in B major.
>
> Well, that doesn’t mean much to me. I just have difficulty reading lots of sharps and there are four… no five here. … So if I just notate the slide positions it saves me the trouble. Also, I seem to remember Michael wrote this arrangement because somebody requested it, and we only had one brief play-through, not even a rehearsal so I had to make sure I was able to play it quickly. I was quite thorough with it though![22]

Wierbos, together with Bennink, is one of two current ICP musicians who never had any formal training in music, and the knowledge of his slide positions is more obvious to him than the more abstract theoretical concept of “being in B major”. The positions, read in combination with the written notes, allow him to sight-read the piece without having to worry about the alterations. As such, the markings suggest his thinking about the connection between his embodied knowledge of his instrument and the more abstract representation of these notes on the page. Interestingly, he has marked every note in the score like this, even if a note had already appeared a number of times before. At some point, it seems, these position markings were no longer solutions to a problem, but an exercise undertaken for its own sake to gain a familiarity with his part as well as his instrument—or rather, of negotiating the relation between them (Fig. 5).

Fig. 5 Example 5: Instant Composers Pool Orchestra, *East of the Sun (West of the Moon)* with trombone positions added by Wierbos

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The above examples show how Wierbos' annotations serve to gain familiarity with this repertoire in rehearsal. However, the notion of the score as a dynamic material rather than a representation of a static, abstract object also plays a role during performances, as the musicians frequently intervene in the notated score during the performance. Example 6 shows the score of *Kehang* ("Kallpaper" [sic]) as used by the ICP today. This particular version is again written for an older line-up of the group, and the main annotation is a part that transcribes the original viola part for trumpet, once underneath the viola part and again at the bottom of the page.

Additional markings like these do not just reflect changing instrumentations, but are frequently used as a source of musical ideas in performance, especially when the group improvises a transition from one piece to another. The motif in x-shaped note heads in the box at the bottom of the score of *Kehang* is usually used to enter the piece. Musicians can start repeating this rhythmic idea, which is clearly recognizable, to signal to the others to make a transition from whatever they are playing into *Kehang*. The others can then join in with repeating this riff, and the piece may then start on cue. Over the course of time, however, the musicians have learned more extensive and playful ways of making such improvised transitions. At one performance in Antwerp on 18 February 2012, the horn section played this rhythmic idea once, which signalled the start of a transition, but they did not start repeating the phrase right away (Fig. 6).

While the other musicians were improvising, Baars pointed to the wavy lines in the box just right of the middle of the score, and the horns interpreted this marking "graphically" by playing "wavy" trills. Baars then pointed to the downward arrow below this box, and the horns interpreted this idea graphically too, playing a downward *glissando* (chromatic slide through a series of pitches). Baars then pointed to the first three notes of the annotated transcribed trumpet part, slowly waving his hand up and down to indicate to the other horn players to play these notes softly and slowly. Then the horn section started repeating the main motif and on a cue started playing *Kehang*.

By extending this improvised transition, the horn section allowed the other musicians more time to adjust to the transition to the next piece, but they also created a sense of expectation and ambiguity. Such interaction and collaborative creation of musical shape and expectation requires very close concentration, trust and an almost telepathic sense of each

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Fig. 6 Example 6: Instant Composers Pool Orchestra, *Kehang*

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other's intentions. Some of the musicians in the horn section—Wierbos, Baars and Moore—have been playing together in this band for over thirty years and are very attuned to one another. This last example shows how this particular constellation of annotations, markings, non-diastematic symbols and regular notation allows the musicians to explore new creative possibilities in performance, radically reinterpreting the signifying potential of markings on the score. It may be thought that these examples are very particular to the practice of the ICP. To indicate how the two case studies shed light on the role of music notation in performance more generally, we conclude this chapter with a brief comparison of them.

Itinerary (An)notation

Although the examples presented here are drawn from two distinctive performance traditions with notations of varying "specificity", annotations function in both as traces of the complex and reciprocal relationships that performers develop with their materials. Most obviously, both cases show how annotation plays a role in allowing performers to develop musical relationships in a number of ways: negotiating their musical knowledge, their embodied relationship to their instrument and their own creative agency and (co-)ownership of the music. More than merely being the expression of a performer's structural understanding of a piece, or even of a demonstration of a performer's understanding of how to play such structures, annotations are ways of imaginatively negotiating the variety of practical considerations that form part of the creative process, a bodily engagement with the body language of notations.

We wish to draw attention to three of these considerations in particular. First, the externalization of ideas is part of the creative process—this is a basic element of the concept of distributed creativity. Certain notational ambiguities in *To My Father* such as those in the trial sheet (Example 1) became a source of interaction between performer and composer during the workshop. The performer's personal relationship to and sense of ownership over the material is clearly visible in Downer's assertion that Planas' fingering indications might not be suitable for other performers, who will need to spend time working with the material in order to develop their own relationships with it. In the case of *Kehang*, the changes in the score are indicative of long-term developments (the changing line-ups that made it necessary to create an extra trumpet part) and short-term developments (the reinterpretation of various parts of the score to find

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improvisatory ways into the piece) in the ICP's creative practice. Annotation, then, is not a process of *iteration*, the repeated application of the same idea in a number of instances, but of *itineration* (Ingold 2010, 97). That is to say, it is not defined by the individual points but by the movement between them. The markings do not just "reflect" the cognitive process but may in turn stimulate new ideas. Furthermore, this process of itineration is not just an individual process, but also a matter of developing social relations. In *Kehang*, for example, the reinterpretation of certain signs mediates the interaction between the horns and simultaneously gives them a way to take control of the musical situation by guiding the transition into a new piece. In the case of "Clouds", Downer's annotations interrogate the material and assert her creative authority, while also tracing her embodied relationship with her instrument, suggesting that part of a performer's sense of ownership over the music is achieved through finding one's own gestural relationship, both to the notation and to the instrument. The reciprocity inherent in performance emphasizes its itineracy, with form emerging from a continuous process of growth and discovery, thus bringing its textility into sharp relief.

Second, this point about the importance of externalizing creative ideas raises questions about the nature of problem-solving. Wierbos' trombone position indications (Examples 5 and 6) are only partly evidence of solving problems in an explicit sense. However, the amount of markings he has made is well beyond that necessary to solve the "problem" of reading the five sharps and many of his markings are thus redundant, suggesting that making them was also in order to develop through them an intimacy with his material. Problem-solving has been a dominant focus within creativity research, but recent work suggests that problem-*finding* is an equally important aspect of creative work (Kozbelt et al. 2010; Sawyer 2003). Richard Sennett (2008) has suggested that an integral element of a practitioner's engagement with material is the ability to problem-find as well as to problem-solve through a "dialogue between concrete practices and thinking" (9). For Sennett, solving and finding are inextricable. Sometimes on encountering a problem, practitioners might explore their material, getting to know all its details ("identifying with it") in order to solve it, but sometimes practitioners seek problems *in order* to develop a closer relationship to their material (214–231). Creative processes of performance share aspects of both of these activities, and they are evident in several of the examples above. Downer's negotiation of fingering problems turns the score into a kind of "workbench": a means through which

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composer and performer interact. *Kehang* has a similar kind of "workbench" function, only during performance and among performers, as the musicians deconstruct and reinterpret aspects of the score as part of their improvisatory practice. Both examples show how annotation can afford performers a co-creative role, engaging with the material on their own terms, according to the circumstances of performance.

Our final point concerns the dual function of notation as a *description* of sound and a *prescription* for its production by musicians. At the beginning of the first case study, we mentioned that markings serving to negotiate "technical" considerations are not wholly distinct from compositional decisions, but can be inextricably intertwined with aesthetic considerations, and can thus be considered as parts of the creative process. The continuity of the descriptive and prescriptive aspects of notation is particularly apparent in two examples discussed above. Archibald's markings in "Czardas" (Example 3) serve to simplify Planas' notation and make it more immediately legible. There are two points to draw from this: first, the turns are primarily a gesture, with their pitches and intervals functioning as secondary considerations; what is more, the movement that defines these turns is not just apparent in the experience of these sounds, but also relates directly to Archibald's physical experience of playing them. This is even more apparent in her "sat nav" arrows, which serve to navigate her finger movements on her clarinet keys. Archibald's description of these markings as a "map" illustrates their dual function as visualizations and prescriptions for physical behaviour. In the ICP case study, the interpretation of various aspects of the notation as "graphic scores" similarly exemplifies the blurred boundary between description and prescription: Baars uses a hand gesture to indicate tempo and dynamics to his fellow performers, and there is no categorical difference between such a gesture and the interpretation of the downward line as a downward *glissando*. Such examples underscore and make tangible the idea of the "body language" of texts described by Andersen (2015), and show that the idea of the materiality of writing and reading is crucial for understanding the function of music notation.

Conclusion

To conclude, these observations lead to the question of how working with a score does not just build a familiarity with it, but is also a process of personal development and acquiring a sense of ownership. The score

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becomes a territory on which the performer's markings are evidence of a tightening up of ownership over the piece. Notation is limited: an extra "layer" of labour on the part of the performer is needed in order to clarify or to realize the music. Performers can have extraordinarily intimate, fruitful, and perhaps most importantly, *reciprocal* relationships with their materials. Nevertheless, it is important not to over-emphasize the ubiquity of annotation. Some musicians choose not to annotate their manuscripts, which we do not suggest demonstrates a lack of creative engagement on their part. Indeed, annotations are just one manifestation of itineracy that musicians exercise. The itinerative character of musical performance is embodied in performers' attentive engagements with their materials and fellow musicians, for example, in the fine-tuning of the relationship between body and instrument to achieve the necessary fluency to execute a complex musical phrase, or in the learning of new musical and professional roles in playing in various formations over the course of a musical career. These practices are necessarily textilic, that is, enmeshed within the tangled relationships between bodies, instruments, materials and the environment. The musical result of such entanglements can never be guaranteed and will vary—either minutely, or more radically—each time, and as a consequence, no work is ever finished: itineracy lies in the *processes* of performance rather than the outcome.

Notes

1. Schuiling (forthcoming) discusses the ontological functions of music notation in greater detail.
2. See Andersen (2015), Clarke and Rossini (2017), Hayles (2002), Hayles and Pressman (2013), Kirschenbaum (2016), McDonald (2006), and Starre (2015).
3. See, e.g., the activities of the AHRC Centre for Musical Performance as Creative Practice, www.cmpcp.ac.uk; Born (2005), Clarke and Doffman (2018), Clarke et al. (2013), Clarke et al. (2016), Cook (2013), and Sawyer and DeZutter (2009).
4. While the musicians in this particular case study worked with paper scores, "material" includes the digitally material, as musicians increasingly perform from, and annotate, digital technologies such as tablets. For a detailed account of rehearsing and performing music with tablet technology, see Roche (2013).
5. The titles of each movement are: "Pastorale", "Romance", "Czardas", "Clouds" and "Calypso Finale". The suite was composed in memory

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of Planas' father, the clarinettist and instrument maker Edward "Ted" Planas (1924–1992), who played a significant role in developing the basset clarinet during the sixties.
6. Interview with Lucy Downer, 20 March 2014.
7. Interview with Nick Planas, 26 March 2014.
8. Interview with Nick Planas, 25 July 2013.
9. Workshop, 29 October 2013.
10. Interview with Lucy Downer, 20 March 2014.
11. The dynamic nature of skilled practice in musical performance is explored in greater detail in Payne 2018.
12. A turn is a musical embellishment comprising the note above the one indicated, the note itself, the note below the one indicated, and the note itself again. It is usually indicated by a tilde-like symbol.
13. Interview with Margaret Archibald, 14 April 2014.
14. Ibid.
15. Ibid.
16. During Schuiling's fieldwork, the group consisted of Misha Mengelberg, Han Bennink, Ernst Glerum (bass), Tristan Honsinger (cello), Mary Oliver (violin and viola), Wolter Wierbos (trombone), Ab Baars (tenor saxophone and clarinet), Tobias Delius (tenor saxophone and clarinet), Michael Moore (alto saxophone and clarinet) and Thomas Heberer (trumpet). For a more detailed history of the group's personnel, see Schuiling (2018).
17. This embrace of compositional elements has a particular significance because of the ICP's cultural position between free jazz and contemporary art music, and also because of their involvement in the countercultural politics in Dutch music around 1970. See Adlington (2013).
18. Interview with Tobias Delius, 31 January 2013.
19. For discussions of flow in various domains, see Csikszentmihályi (1996) and Sawyer (2003).
20. Interview with Thomas Heberer, 1 February 2013.
21. Interview with Ab Baars, 4 January 2013.
22. Personal communication from Wolter Wierbos, 28 May 2016.

References

Adlington, Robert. 2013. *Composing Dissent: Avant-garde Music in 1960s Amsterdam*. New York: Oxford University Press.

Andersen, Tore Rye. 2015. "'Black Box' in Flux: Locating the Literary Work Between Media." *Northern Lights: Film & Media Studies Yearbook* 13: 121–136.

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Created from uunl on 2022-02-01 10:24:30.

Appadurai, Arjun. 1988. *The Social Life of Things: Commodities in Cultural Perspective*. Cambridge: Cambridge University Press.

Bayley, Amanda, and Neil Heyde. 2017. "Communicating Through Notation: Michael Finnissy's Second String Quartet from Composition to Performance." *Music Performance Research* 8: 80–97.

Bleich, David. 2013. *The Materiality of Language: Gender, Politics, and the University*. Bloomington: Indiana University Press.

Born, Georgina. 2005. "On Musical Mediation: Ontology, Technology and Creativity." *Twentieth-Century Music* 2: 7–36.

Clark, Andy. 2008. *Supersizing the Mind: Embodiment, Action, and Cognitive Extension*. Oxford and New York: Oxford University Press.

Clarke, Bruce, and Manuela Rossini, eds. 2017. *The Cambridge Companion to Literature and the Posthuman*. Cambridge: Cambridge University Press.

Clarke, Eric, and Mark Doffman, eds. 2018. *Distributed Creativity: Collaboration and Improvisation in Contemporary Music*. New York: Oxford University Press.

Clarke, Eric, Mark Doffman, and Liza Lim. 2013. "Distributed Creativity and Ecological Dynamics: A Case Study of Liza Lim's *Tongue of the Invisible*." *Music & Letters* 94: 628–663.

Clarke, Eric, Mark Doffman, and Renee Timmers. 2016. "Creativity, Collaboration and Development in Jeremy Thurlow's *Ouija* for Peter Sheppard Skærved." *Journal of the Royal Musical Association* 141: 113–165.

Cook, Nicholas. 1990. *Music, Imagination and Culture*. Oxford: Oxford University Press.

Cook, Nicholas. 2001. "Between Process and Product: Music and/as Performance." *Music Theory Online* 7. Accessed November 1, 2014. https://www.mtosmt.org/issues/mto.01.7.2/mto.01.7.2.cook.html.

Cook, Nicholas. 2004. "Making Music Together, or Improvisation and Its Others." *The Source: Challenging Jazz Criticism* 1: 5–25.

Cook, Nicholas. 2013. *Beyond the Score: Music as Performance*. New York and Oxford: Oxford University Press.

Csikszentmihályi, Mihályi. 1996. *Creativity: Flow and the Psychology of Discovery and Invention*. New York: Harper Collins.

De Laet, Timmy, Edith Cassiers, and Luk Van Den Dries. 2015. "Creating by Annotating: The Director's Notebooks of Jan Fabre and Jan Lauwers." *Performance Research* 20: 43–52.

Doğantan-Dack, Mine. 2011. "In the Beginning Was Gesture: Piano Touch and the Phenomenology of the Performing Body." In *New Perspectives on Music and Gesture*, edited by Anthony Gritten and Elaine King, 243–265. Abingdon: Ashgate.

Faulkner, Robert, and Howard S. Becker. 2009. *Do You Know…? The Jazz Repertoire in Action*. Chicago: University of Chicago Press.

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Created from uunl on 2022-02-01 10:24:30.

Goehr, Lydia. 2007. *The Imaginary Museum of Musical Works: An Essay in the Philosophy of Music*. Rev. ed. Oxford: Oxford University Press.

Hayles, N. Katherine. 2002. *Writing Machines*. Cambridge and London: MIT Press.

Hayles, N. Katherine, and Jessica Pressman, eds. 2013. *Comparative Textual Media: Transforming the Humanities in the Postprint Era*. Minneapolis: University of Minnesota Press.

Ingold, Tim. 2010. "The Textility of Making." *Cambridge Journal of Economics* 34: 1–102.

Kanno, Mieko. 2007. "Prescriptive Notation: Limits and Challenges." *Contemporary Music Review* 26: 231–254.

Kirschenbaum, Matthew G. 2016. *Track Changes: A Literary History of Word Processing*. Cambridge: The Belknap Press of Harvard University Press.

Kozbelt, Aaron, Ronald A. Beghetto, and Mark A. Runco. 2010. "Theories of Creativity." In *The Cambridge Handbook of Creativity*, edited by James C. Kaufman and Robert J. Sternberg, 20–47. Cambridge: Cambridge University Press.

Latour, Bruno. 1993. *We Have Never Been Modern*. Cambridge: Harvard University Press.

McDonald, Peter D. 2006. "Ideas of the Book and Histories of Literature: After Theory?" *PMLA* 121: 214–228.

Payne, Emily. 2015. "The Creative Process in Performance: A Study of Clarinettists." PhD diss., University of Oxford.

Payne, Emily. 2018. "The Craft of Musical Performance: Skilled Practice in Collaboration." *Cultural Geographies* 25: 107–122.

Payne, Emily, and Floris Schuiling. 2017. "The Textility of Marking: Performers' Annotations as Indicators of the Creative Process in Performance." *Music & Letters* 98: 438–464.

Planas, Nick. 2014. *To My Father for Basset Clarinet and Piano*. Brackley: Self-Published Score.

Roche, Heather. 2013. "Why iPad?" *Heather Roche*, December 3. Accessed July 30, 2018. https://heatherroche.net/2013/06/08/why-ipad/.

Sawyer, Keith. 2003. *Group Creativity: Music, Theater, Collaboration*. Mahwah: Lawrence Erlbaum Associates.

Sawyer, Keith and Stacy DeZutter. 2009. "Distributed Creativity: How Collective Creations Emerge From Collaboration." *Psychology of Aesthetics Creativity and the Arts* 3: 81–92.

Schuiling, Floris. Forthcoming. "Notation Cultures: Towards an Ethnomusicology of Notation." *Journal of the Royal Musical Association*.

Schuiling, Floris. 2018. *The Instant Composers Pool and Improvisation Beyond Jazz*. New York: Routledge.

Sennett, Richard. 2008. *The Craftsman*. London: Penguin.

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Created from uunl on 2022-02-01 10:24:30.

Starre, Alexander. 2015. *Metamedia: American Book Fictions and Literary Print Culture After Digitization*. Iowa City: University of Iowa Press.
Sudnow, David. 1979. *Talk's Body: A Meditation Between Two Keyboards*. New York: Knopf.
Tomlinson, Gary. 2012. "Musicology, Anthropology, History." In *The Cultural Study of Music: A Critical Introduction*, edited by Martin Clayton, Trevor Herbert, and Richard Middleton, 2nd Edition, 59–72. New York: Routledge.

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