CONCLUDING REMARKS

The rediscovery of manuscript Montpellier H159, with a notation that presumably

represented microtones, caused much consternation amongst French scholars around the

middle of the nineteenth century. Microtones, intervals smaller than the smallest interval

in European main stream music – the semitone – were considered to be ‘oriental’ or

‘Arabic’, which *de facto* meant ‘inferior’. It was considered impossible that ‘the

foundation of Western music’, Romano-Frankish chant, could contain these ‘inferior’

pitches. The academic discourse about the subject got bogged down when, after 1903,

scholars with a clerical background withdrew from the discussion, possibly due to the

Vatican’s preference for analyses that supported community singing; quartertones did not

fit into that concept.

In 1978, Dom Jacques Froger from the Benedictine Solesmes Abbey wrote an

article that clearly intended to stop the discussion about microtones once and for all.

Implicitly acknowledging a distinguishable sonic property of the H 159 symbols, he

unsuccessfully tried to attach another meaning to them. Ike de Loos and Manuel Pedro

Ferreira in their doctoral theses again addressed the subject from a supportive angle in

1996 and 1997 respectively, but there was little to no resonance to their opinions. Andreas

Pfisterer, in one of the few substantive responses to Ferreira’s research, acknowledges the

occurrence of microtonal inflections, but is inclined to consider microtonal inflections as

local intonation peculiarities, not as a quality inherent to the Romano-Frankish chant

tradition as we know it or its (Roman?) predecessor. He cannot agree with the scope of the

phenomenon as assumed by Ferreira because he considers the number of manuscripts

consulted to be insufficient for developing theories. As demonstrated by additional

evidence from amongst Christian Meyer’s study about the practical impact of monochord

instructions and the calculations of microtonal intervals in instructions written all over

north-western Europe on the one hand and by the numerous references to the reception of

microtones in chronicles and treatises over a period that covers centuries on the other hand,

Pfisterer’s reservations can be put aside without concern.

Now, exactly forty years after Froger’s publication, the new insights that have

developed since then not only seem to make the palaeographical rejection of a medieval

liturgical microtonal performance tradition untenable, but also add crucial understanding

about functional links between text and melody that reflect a sophisticated microtonal

performance tradition far beyond concepts of embellishment or word painting.

Michel Huglo and Ferreira sketch Roman chant as a western outpost of Hellenistic

traditions. In the context of a Latin, Roman tradition, the enharmonic genus was mentioned

by Aristides Quintilianus; later, Boethius’s treatises transferred it to the Carolingians,

where during the ninth century, Pseudo-Remigius of Auxerre refers to this genus as a

Roman performance tradition. Chronicles continue mentioning the performance of

microtonal inflections until the end of the fifteenth century.

To investigate *why* microtonal inflections were employed never occurred to the

scholars who acknowledged them. Answers to why a musical figure is employed require

functional analysis. It was Jacques Froger who sought for functional answers in 1978. His

functional analysis failed for two reasons. Firstly, because he concentrated on a strictly

musical context. Secondly, because the phenomenon does not reflect the formal, melodic

system of the Romano-Frankish tradition. Its employment to a certain extent indeed

depends upon “whether the scribe feels like it”, as a scholar quoted by Froger correctly

remarks.

The analysis in the present PhD thesis indicates that microtonal inflections are

triggered by the meaning of words and / or expressions; the melodic accentuation

contributes to the rhetorical qualities of the texts sung. Via rhetorical channels, the

microtonal signal-vehicles address *movere et docere* by highlighting words related to

affect, logic, and *loci*. In addition, my research contextualises the functionalities of a range

of melodic musemes in medieval chant. The combination of melodic meanings and text

elements created new multi-levelled rhizomes that called for an adapted nomenclature,

which is based upon semiotic terminologies. Central semiotic concepts are ‘museme’,

‘indexical signal-vehicle’, and ‘parapitch’. A museme is a formulaic unit of musical

meaning in a given (here liturgical) context. The microtonal museme as an indexical

signal-vehicle, *by definition* (‘indexical’), addresses *references* to meanings in the chain

of events between writing, reading, performing, and hearing formulaic units. In these

contexts, I define the microtonal inflection as a parapitch, a pitch that by definition carries

both melodic and textual properties.

The results of my analyses will hopefully contribute to the discourse about the

restitution of a melodic tradition by an improved understanding of comparative dating

between older and younger traditions based upon an increased awareness of the intricacies

of the widespread rhetorical and formulaic tradition which seems to have been gradually

disintegrating since its earliest notations discovered thus far. By acknowledging nondiatonic

elements in the restitution of Romano-Frankish chant and successively stepping

over the Guidonian threshold of diatonic modality, it could considerably shift the

chronological horizon for reasoned restitutions.

The otherness of the microtonal pitch in a diatonic environment is an auditive

experience that directs the attention of the audience towards the word in which this

otherness is applied. Rhetorical principles and guidelines catalyse the communication

intended between the scribe, the performer, and the audience. If opponents of the

microtonal interpretation of special signs and adapted neumes maintain their rejective

stance, they will have to oppose the palaeographical and historical arguments presented in

Chapter I, which revaluate previous research. In addition, they will have to introduce

alternative distinctive sonic qualities for the special signs and adapted neumes that match

the effect of microtonal inflections in the context presented here.

Additional explorations seem to indicate that against the same background of

otherness, a number of musemes had the same function: non-diatonic semitones, emphatic

phrases, modal shifts, and liquescent notes. Results shown in APPENDIX VI that link Ult2

with the tenth-century manuscripts Sankt Gallen SG 390 and SG 391 strongly suggest that

*litterae significativae* other than the letter ‘s’ in Ult2 are bearers of the same semiotic

tradition. The common denominator of all musemes, formulaicy, is a compound concept,

both consisting of ‘standard’ properties of a core repertory against which notions of

otherness apply contrasts and connecting the melody to verbal meaning.

Formulaicy, as defined by Leo Treitler in his *With Voice and Pen* and applied

amongst others by Rebecca Maloy in her book *Inside the Offertory*, refers to a system with

*conditioned* formulas. Both authors relate the system to genres characterised by systematic

constraints of (diatonic) melodies or phrases. The functionality of musemes widens the

concept of formulaicy not only to word-pitch relations, but also to both formulaic and nonformulaic

chants. For instance, microtonal inflections occur in all Mass genres and (based

upon the sample in this study) there are no indications that non-diatonic semitones as

observed in Ult2 would behave differently in this respect. Other formulaic musemes, such

as emphatic phrases, function only in a formulaic genre, as the otherness of this melodic

museme is not defined by pitch, but rather by variant phrasing, which only creates contrasts

in a formulaic setting.

Treitler and Maloy explain the employment of formulaic systems by their

structuring qualities for learning the repertory and transmitting it according to the

traditions from previous generations. However, in the contexts analysed, musemes

represent aspects of what I would call ‘contained improvisation’. This expression is

applicable here for two reasons: the *auctor* may choose to apply a museme or not, which

is an element of individual choice. For performers, it can be typified as improvisational.

The second reason is that ‘contained’ refers to the strictly defined formal and rhetorical

conditions under which they can be employed. Demarcations of otherness are formally

strictly defined; in addition, musemes can semiotically be categorised as indexical signalvehicles,

*by definition* referring to some content, further specified in the verbal text and in

the actual liturgical context. When the trained audience perceived the museme’s otherness,

it *knew* that a rhetorical annotation was implied. Rhetoric was the catalyst of the implied

communicative process and was needed to convey meanings and codes.

As far as musemes have a diatonic background (all except the microtonal inflection

and the non-diatonic semitone), hypothesising in the Carolingian religious context, which

stressed formalistic issues, they presumably soon blended unobtrusively as formulas into

the diatonic main frame. The disappearance of emphatic phrases in younger Carolingian

tractus compositions may be a general indication for the reduced formulaic reception of

diatonic musemes at the time. In semiotic terms, the codes implied by the indexical signalvehicles

indicating the presence of rhetorically important text elements were lost. Without

its rhetorical footing, the closed semiotic circuit – in which encoded musemes as indexical

signal-vehicles were passed from the scribe to the performer and from the latter to the

audience – was disrupted. What remained of the emphatic diatonic phrases were formulas

to be learned by heart but without the same meanings that they had previously contained.

Microtonal inflections, audibly more distinct than diatonic emphatic phrases, continued to

be employed, be it at a reduced rate in comparison to the older tractus. This diachronic

interpretation implicitly assumes that the written sources reflect that the younger tradition,

predominantly motivated by formalistic considerations, copied the microtonal inflections

from the older tradition and assimilated the microtonal musemes in their idiom as an

intrinsic part of their culture, but that they employed the technique less frequently. At the

present state of analysis, it is unclear whether ‘younger’ and ‘older’ can be substituted with

‘Carolingian’ and ‘Roman’ respectively.

The same diachronic loss of rhetorical meaning seems to apply to a number of

modal shifts, two of which were analysed in more detail. Prior to the emergence of modal

systems, introduced by the Carolingians, shifts in tetrachordial diatonic tonal areas as such

may have been formulaic musemes. The example *Dum medium silentium* would refer to

such a shift, coinciding with a microtonal inflection as a ‘stacked’ museme. I explained

the coincidental occurrence of the stacked musemes by the disrupted semiotic circuit of

the diatonic modal museme against a continued perception of the microtonal museme. The

other example, the modal shift in the communion *Beatus servus*, has a more complicated

background. The explanation assumes an underlying tonal construct as reflected in the

*Scolica Enchiriadis*, which allows for a number of semitonal alterations. The analysis by

Charles Atkinson reveals the non-diatonic semitones avoided by the corrective intentions

of the *auctor*. The latter modal shifts were inserted in order to avoid the semitones that did

not fit in the diatonic notation. An analysis of these non-diatonic semitones, only now

perceived as parapitches, reveals their museme-character, as they seem to confirm a

rhetorical intention when related to the text in which these pitches are applied. As an echo

of the former non-diatonic semitones, microtonal inflections appear as replacements for

the non-diatonic semitones in some manuscripts. The confusing employment of ‘wrong’

semitones in diatonic chant may have been the cause for the earlier and almost unanimous

rejection of this practice. Dirk van Betteray demonstrated the rhetorical background of

liquescent notes, which as short diatonic additions to the melody could be applied without

further problems when pronouncing consonants.

On the one hand, the museme formulaicy is conditioned by text, rhetoric, and

personal interpretation. Avoiding overkill is an often-quoted rhetorical guideline and limits

the possibilities of the *auctor* applying musemes. These elements define whether the

museme as written or performed contributed to *modulare bene*. On the other hand, when

applying microtonal inflections, an *auctor* has to also respect musical constraints if the

findings of the second-mode tractus analysis are representative for all employments of the

microtonal inflection. The constraints, again, seem to underline the formulaicy as

otherness in relation to a diatonic framework. It apparently belonged to the rules of

*modulare recte*, employing microtonal inflections only if immediately preceded by a

supersemitonal pitch: *fa*, *do,* or Bb. Diverging variants were observed in Dijon chants apart

from the samples, although they were not further investigated here.

Returning to *modulare bene*: this most probably also referred to the actual

performance – in rhetorical terms the *pronuntiatio,* the delivery – of both the core repertory

and formulaic additions. Taking into consideration that microtonal inflections reflect

narrow intervals, I assume that they were only perceivable if the performance of the

remaining phrases reflected an austere style, *sine fuco*, as Augustine remarked, referring

to rhetoric in liturgy. This is again in contradiction with many current interpretations of

ancient music, which seem to prefer adding endless melismas and oriental sounding

embellishments. It further decreases the chances of hearing this style of chant being

performed again. Those chances are already dim due to the melodic, linguistic, and biblical

knowledge required to perceive the sophisticated performance tradition as put on

parchment by a medieval *auctor* a thousand years ago. He indeed could rely upon the fact

that his audience would understand the intended combined effects of all of these elements