

CHAPTER 8THE TUTTI: ESTABLISHED TYPES AND THEIR DEVELOPMENTIntroduction

Such was (and is) the division between the theory and practice of serious music that aside from the most obvious formal and harmonic innovations, none but aesthetic and sociological issues have formed the basis of established critical thought since the mid-eighteenth century. The history of music has nothing, for example, to compare with the contributions made to colour theory in painting.

Because sound is more difficult to analyse, reproduce and compare than colour, verbal image or idea musical culture has not and may never have a relationship between theory and practice comparable to that in painting or letters. As a result, theoretical codifying of such elements as texture and timbre (and the relation of these to harmony and form) must be attempted retrospectively. It is unrealistic to try to perform modern analysis with the critical tools of the past, although the results of analysis will probably throw light on the meaning of past criticism.

The task of music theorists is difficult when their examples are to hand, when their readers know the sound of what is talked of. That of the retrospective theorist of sound is ultimately impossible since he is comparing symbols whose meaning may only be reconstructed mentally through the disposal of a delicate and expert sensibility, or be rendered physically employing not a little conjecture even when an imitation of the conditions of past performance has been made possible.

Retrospective criticism of imagined sound is, nevertheless, a direction in which historical studies must sometime turn, since it is evident that the factor of musical colour in the area between the high baroque and the wax cylinder is no less important than are thematic structure and harmony.

Musical research has not so far progressed that it can offer a system of analysis within which to work in the field of orchestration and musical timbre. The last three chapters of this study will therefore attempt to deal with these elements in this way. The present chapter, dealing with certain definite aspects of the orchestral tutti, analyses the established types of tutti composition and their development during the period under discussion. The next will analyse layouts using fewer instruments, particularly the notion of solo and accompaniment within the orchestra, with special reference to techniques which became current in the same period. The final chapter traces patterns of associative meaning and symbolism attaching to certain kinds of orchestral colour encountered in Parisian music from 1789 to 1810. Some of these associations existed before the Revolution and some were to have greater ramifications in the Romantic period.

(1) The symphonic legacy

The writing of symphonies in Paris all but died out after 1789 and began again tentatively under the Empire. Some specimens are lost, but almost all were by very minor composers.¹⁾ The production of sinfonia concertantes was less drastically curtailed. It is therefore useful to propose a comprehensive series of definitions of the kinds of tutti that formed a basis for French developments after 1789.

These definitions are based on available full scores of French works and Haydn's 'Paris' symphonies, first given in 1787. Time available did not allow full scores of pre-Revolutionary works to be made up from parts. The categories below occur mainly in outer (allegro) movements. As was the

¹⁾ Brook/SYMPHONIE chronicles the way in which "la symphonie fut mise au rancart pendant plusieurs années". (Vol.I p.481)

case with concertos, many symphonies before 1789 used reduced orchestral means in slow movements, creating fewer tutti textures. Even Haydn's symphonies show this tendency, and Méhul's two surviving examples of 1808 are Haydnesque in this respect. So that the series may be seen complete, categories that will chiefly require discussion in the following chapters are included.

(1) Colour-homophony

- a) Unison [no harmony]
- b) Approach to cadence; homophony, sometimes with quaver or semiquaver movement [tonic and dominant, preceded by possible dissonance as the dominant is reached]
- c) Violin melody; bass variable but subordinate; inner parts and wind parts support and double [chiefly consonant]
- d) Passagework; movement consciously developed in middle and/or bass parts, compensating for lack of primary melody; wind parts sustain, or continue pattern [modulation]

(2) Melodic counterpoint of colour

- a) Wind passage without strings, or with a section of strings only [basic chords]
- b) Bass melody [may contain consonance or dissonance]
- c) Motivic continuum; two or more different sections of the orchestra -- often treble and bass -- exchange a given motif; other instruments sustain, usually with elements of movement [various]

- d) 'Expressive medium'; oscillating middle voices often with held wind chords; minimal bass, usually a pedal point; consciously expressive melody
 [tonic and dominant]
- e) Melody and accompaniment on unorthodox combinations of instruments [basic progressions]

The types of layout characterized as "colour-homophony" represent the fundamental bricks of the earlier symphonic style in general. Those expressing melodic counterpoint of colour are the embryonic forms of some techniques of mature nineteenth-century orchestration. In accordance with this the general harmonic proclivities of each type, appearing above in square brackets, may be imagined in the various parts of the sonata form. The earlier symphony might use colour-homophony almost exclusively in an opening allegro, reserving contrast for the string body alone, for example in the second subject area and the development.

Because of their significance for the future, examples of melodic colour-counterpoint before 1789 are described below.

- a) Ex.118 ca.1785 Rigel, Symphony Op.22 no.2 (Brook no.9), I/54-58
Ex.119 1786 Haydn, Symphony 86, III/27-54

Both are advanced examples of their authors' art. The essential elements in this pattern are, counterpoint highlighted by differences in register and timbre; low string writing; use of short motifs rather than extended melody; and attention focussed on the tenor register, the area of the ensemble which was [to] newly occupy the interest of many composers.

- b) Ex.120 1777 Le Duc, Symphony in E flat (Brook no.9), I/201-4
Ex.121 1785-6 Haydn, Symphony 85, I/172-75

This relatively common technique was in the earlier symphony most often associated with loud music and encountered in a developmental context.

The phenomenon of 'expressive medium'¹⁾ was so much a product of the post-Mozartian period that these examples offer mere hints of what was to come. Haydn did not use the idea at all in his 'Paris' symphonies. The object was to create an almost unrhythmic accompaniment, beautiful in itself to a tonal melody; the instrumental characteristics, which actually determine the phenomenon as much as the nature of the melodies which they bore, were the rocking inner parts seen in the Rigel, a bass which minimized forward movement, and auxiliary sustaining notes. The expressive medium often occurred in a flat key, generally E flat.

- e) Ex. 126 1777 Le Duc, idem., III/37-44
Ex. 127 1786 Haydn, Symphony 84, IV/246-250

These examples present one principal theme, but, using the full ensemble, do not simply give violins the melody and wind instruments the accompaniment. Brilliant decoration on the first violins, as here, represent an embryonic form of the orchestration of Eroica, IV/381ff or the climax of the Tannhäuser overture, where an important theme is stated strongly in the tenor and alto registers.

(2) Rôle of the sinfonia concertante

The popularity of the sinfonia concertante reached a high point in the period 1778-1789, when Brook noted 113 examples as against 46 in the previous decade.²⁾ In the twelve pre-Revolutionary years the total slightly exceeded that of symphonies discovered. The accompaniment to the solo instrument was, like that of concertos, severely limited in size: strings alone or with horns and perhaps oboes was the normal limit. Such forces are

¹⁾ This invented term is intended to embody the notions of an "environment" as the "liquid vehicle with which pigments are mixed for use" (Shorter O.E.D. There is an incidental echo in the theatrical meaning of a "screen fixed in front of a gas-jet in order to throw a coloured light upon the stage", in that the expressive accompaniment parallels the screen and the melody the tinted image.

²⁾ Brook/SYMPHONIE, Vol.I p.468

of little importance in considering the tutti, because selective examination shows that the accompanying ensemble played the rôle of a continuo instrument used a very limited range of orchestral layout, and rarely employed the tutti outside the area of cadential reinforcement.

However, the interest and enjoyment in the sound of wind instruments playing together was manifest in the increasing number of sinfonias using two or more solo wind instruments. Information from Brook's study yields the following table.

	Sinfonia concertantes without solo wind	Sinfonia concertantes with one solo wind instrument 1)	Sinfonia concertar with two or more solo winds 1)
1770-79	52	3	9
1780-89	35	8	22
1790-1801	11	1	31

The fashion is quite clear and the total of 22 sinfonias in the decade before 1789 with two or more wind instruments may be said to be an influential factor in the development of orchestration. Their contribution was first, the way in which they allowed the public to hear technically advanced wind playing in an orchestral context; second, the propogation of taste for the clarinet and the horn; and third, with the development of sinfonias with three or four wind instruments, the exhibition of a colour-relationship that placed the winds in a self-sufficient position beside the strings. The culmination of this kind of sinfonia concertante appears to be Widerkehr's 4th (Brook catalogue) for solo flute, oboe, clarinet, 2 bassoons, horn and cello, ca.1800. Consideration of the wind group in orchestration is given in chapter 9.

1) Either with or without other types of solo instrument.

(3) The tutti before 1789

As stated above, the orchestra was not treated with freedom in concert pieces up to the Revolution, in the sense that conventions of layout predominated in relation both to the style of the movement concerned and to its formal structure. In operatic composition similar conventions obtained. Sonata overtures tended to adopt the established patterns of sonata-allegro and vocal movements to adhere to one style of orchestration throughout. The most obvious sign of the conservatism of scoring within vocal movements was the use of one particular set of instruments from start to finish.

Within this framework it is easily recognised that the tutti in opera existed as a special concept. It was an exception to use the tutti as to employ the strings alone. In opéra-comique the full forces were in any case limited to strings, a flute, two oboes, two bassoons and two horns. The clarinets, trumpets and timpani sometimes used were obtained by doubling players, not the addition of extra ones. Therefore the patterns of layout were most often those characterised above as "colour-homophony" and, allowing for the fact that the fullest instrumentation generally occurred in the overture and final chorus, the opéra-comique subsisted in the main on a 'continuo' concept of scoring.

At the Académie much more numerous forces were available but their deployment was subject to the style of the individual movement. Moreover, as was seen in chapter 3, the exceptional nature of tutti scoring was underlined by the resulting addition of extra flute and oboe players from the back desks of the strings, and by the associated residual practice of dividing the ensemble into "grand" and "petit" choeur. In most of the music the strings were the dominant group, supported by various combinations of woodwinds and horns. Even if Gluck raised the Académie orchestra to new heights of versatility, his own technique of orchestration in the Paris

operas seen as a whole is remarkably stratified. The layout whether of one or two basic patterns, and instrumentation are retained throughout a given movement; the expressive body is (emphatically) the strings, which are always managed with the highest skill; frequently there is little use of more than the high baroque pattern of chordal string writing and supporting winds doubling in elementary 6ths or 3rds; and sustaining notes are sparingly used and often appear in conjunction with a pedal point or sequence. Whole choruses might be accompanied by strings alone. Gluck's orchestral interest for us and his facility stem from the superior management of detail, a frequent fullness of quasi part-writing and a singular ability to shift round the accepted rôles of different groups: for example by unexpectedly making the horns follow the principal melody or the violins rhythmic rather than melodic.

In this chapter I have been selective in bringing forward types of music for consideration; much greater comprehensiveness must await the attention of a team of researchers rather than the soloist. Discussing the tutti the choice has fallen on five aspects which cut across the division of colour-homophony and colour-counterpoint. These aspects reflect the ways in which composers anticipated the nineteenth-century view of the orchestra by treating the ensemble as an expressive whole rather than a continuo-equivalent. The staple layout of string writing conceived as the homophonic-melodic basis of four-part harmony is not in itself considered: it is equivalent to categories b, c and d under colour-homophony. The five aspects are (i) crescendo and diminuendo (ii) chords (iii) particular solutions to concerted writing (iv) sustaining and motivic continuum, and (v) the orchestration of dissonance.

(i)

The crescendo before 1789 was no commoner in French music than in the

Mannheim works which influenced it. Even Haydn, especially in outer movements and minuets, relied mostly on alternation ^{of} piano, forte and sforzando. The dramatic uses of crescendo found in Ragué's symphony Op.X no.1 (1786-7, Brook catalogue no.1), where the climax in Ex.128 is a diminished 7th, do not carry with them any new orchestral devices. In Ex.120 likewise there is no cumulative building up of instruments, a feature that had been developed by Mannheimers such as Filtz and Beck within the limited range of wind instruments commonly used by them.

In a similar range French opéra-comique composers produced few variations on the basic techniques of orchestrating an increase in sound. These techniques were to create movement in the strings, sustain with the horns, chiefly in octaves, and to repeat the chosen motif sequentially, rising in pitch to match the rise in dynamic level. To do this was simply to regard the ensemble as a fixed body whose players could individually sustain a crescendo rather than as a group who contributed in a complementary fashion. The older attitude is seen in Grétry's Silvain (1770).

Silvain, act 1 scene II

Handwritten musical score for three staves (Ob 1, Cx, and Fgs 1,2) from Grétry's Silvain. The score shows a crescendo from piano (*p*) to forte (*f*) and back to piano (*p*). The top staff (Ob 1) has a treble clef and a key signature of two flats. The middle staff (Cx) has a bass clef and a key signature of two flats. The bottom staff (Fgs 1,2) has a bass clef and a key signature of two flats. The score includes dynamic markings (*p*, *Cres.*, *f*, *p*), articulation (accents), and performance instructions (+Vas, +B).

It is also seen in the crescendo with timpani roll opening Martini's Henri IV (1774), Ex.129. This is more elaborate than most in the genre, yet built solely from repetition and rise in pitch.

Similar repetition is seen in Académie works of the 1770's. Gluck's most obvious example is probably the end of the trio for Iphigénie, Clytemnestre and Achille in act 2 of Aulide (pp.163-4), while Grétry in Céphale et Procris (Ex.102) is more forward in the building up of a discord with new layers of tone.¹⁾ During the succeeding decade this kind of crescendo was developed at the Académie in several works. Example 13A (Floquet, Le Seigneur bienfaisant, 1780) uses thunder, lower strings, bassoons and clarinets on p.138. Lemoyne's Electre overture (1783; Ex.130) goes further in using horns, trumpets, bassoons, clarinets, oboes, trombones and timpani with strings in a very carefully marked group crescendo. Like those in Martini and Floquet this effect formed part of an orchestral tone-painting, not a vocal accompaniment. Already in Lemoyne the striving for novel sounds in the overture is well advanced; by 1788 and the overture to Cherubini's Démophon the trombones appear as a fundamental part of a crescendo with string basses and timpani (Ex.131);²⁾ the violins are also treated cumulatively.

A converse interest in the dramatic diminuendo also showed itself in the same decade, and Grétry's L'embarras des richesses (1782), La caravane du Caire (1784), Piccinni's Didon (1783) and Sacchini's Chimène (1784) all ended their first act with one. The effect was simply achieved either by a reduction of forces to strings and perhaps horns, or in Grétry's first case, the dynamic reduction of a fixed layout of staccate chords.

(ii)

Chords for the orchestra, when elongated or repeated in passagework, are a function of concerted writing; when isolated and repeated for themselves they become a separate phenomenon and a dramatic gesture. (It has been suggested in chapter 7 how the essence of the modernity of some of

¹⁾ His naivety is unfortunately betrayed in the ineffective low clarinet notes and inexplicable oboe ones.

²⁾ Taken from the Paris Opéra score, which includes trombones (A.326, f.40)

Berton's orchestration was the invention of dramatic gesture). Although an important part of the operatic style of the Revolution centred on the percussive use of the ensemble, sharply isolated chords in the 1770's and 80's are relatively rare in French music, and one great attraction of Haydn's style must, I think, have been the rhythmic attack demanded in much of his music. The exchange of dotted rhythm chords near the opening of the G minor symphony, for example, would have struck its first hearers as very forceful.¹⁾

Haydn, *Symphony 83, I/12-14*

Allo. spiritoso (f) STR WIND

Again, following current symphonic style, detached full chords in opéra-comique were most often reserved for cadential passages. With a band of chamber size the effect of rhetorical passages such as Haydn's above was limited and in any case out of keeping with the subject-matter of the majority of plots. Within the opportunities provided in the overture, however, some experiment was made. Example 2 from Dezède's Alexis et Justine (1783) shows the final cadence reinforced by the fullest chords the orchestra could muster, the piccolo providing an unusual gloss and the tenor register well supported by bassoons and horns.

At the Académie the "coups" and "frappez" of tragédie lyrique provided regular displays of chordal writing. Music such as Ex. 139, from act ^{p. 329}

¹⁾ The movement forms part of act 3 of Cherubini's 1804 ballet, Achille à Scyros.

3 of Gluck's Alceste demonstrated how trombones might be combined with the woodwind in such cases. Before 1789, owing to the necessity for doubling between brass instruments, it was extremely difficult to obtain what the modern orchestrator considers desirable, namely the provision of a balanced chord structure within the brass as well as the woodwind. If the trombones were used it was the woodwind - often doubled rather than specially grouped or dovetailed - which supplied the bright upper tones. (This partly explains the rise in use of the piccolo). Chords orchestrated like Gluck's are shown for comparison in Ex.307 from Edelmann's Ariane (1782). Floquet in 1780 (Ex.13A, p.138) relied on this now generally unobtainable weight of treble tone in his storm-chords.

Precision of attack was not a renowned virtue of the Académie orchestra at this time, which may explain in part why a pugnacious style of chording was reserved for set pieces rather than action-painting. Chords at the beginning of overtures were sustained; only with Dalayrac's Renaud d'Ast (1787) is there a notable exception. This piece is further discussed in the next chapter.

largo ma non troppo *f*

Vns,
Fts,
Cors

Vlc, V/c

f *f*

CB.

Two interesting examples show how, within the confines of technical possibility, composers explored the dramatic sound-properties of chords.

Piccini's Alys overture of 1780 opens with a split chord:

STR

P *f*

Winds & horns

and Lemoynes's Electre (Ex.130) builds up an E flat minor chord in three layers: strings, bassoons, trombones and clarinets, and offstage clarinets and bassoons. It was not long before opéra-comique reached similar levels of experiment, but Méhul's Cora (performed 1791 but written ca.1786) reveals the extent to which this composer was prepared to invigorate the Académie orchestra at an early date. Example 133, p.177, shows a climactic chord built up in layers; but the woodwind are spaced out instead of doubled and the trumpets made to attack afterwards with the trombones as the harmony becomes discordant. The brass begin to be regarded as a section here, little more than a decade after the introduction of trombones to the Académie.

In the same work Méhul showed that the trombones could also be used in short sforzando chords (Ex.133, pp.171-2) whereas their established style was more sustained, and similar passages normally included only trumpets and horns. A comparison is Ex.134, p.289 from Grétry's Andromaque (1780) which omits the timpani also. There is a parallel shift in tone away from the woodwind in Méhul, as the upper brass sustain with the basses: in Grétry the effect is designed altogether more straightforwardly.

Striking uses of wind chords for dramatic gesture mark Ragué's above-mentioned symphony as immediately pre-Revolutionary. The first movement development consists solely of modulating versions of a two-bar phrase forced home by the dynamic impact of a wind chord out of which violin upward arpeggios seem to spring. At the parallel juncture in the last movement the desire for similar forcefulness obliged the composer to adopt stopped horn notes as an unusual measure so that each chord would possess maximum weight (Ex.135). The formal rôle of an orchestration of gesture in this symphony is a most distinctive feature. It is surely not accidental that it was played by and perhaps designed for the Concert Spirituel, whose forces in

1787 were almost the same as those of the Académie, and included over 20 violins, 4 bassoons and 4 horns.

(iii)

The further back from 1789 that one observes the less the obscuring of four-part writing is apparent in the tutti. Both contrapuntal^a effect, and, often, clarity were liable to be submerged as the tutti was given power and its artistic autonomy. Though his orchestration was, more especially after 1800, of exemplary clarity, not even Méhul attempted, for instance, the orchestral fugato.¹⁾ With Grétry, Piccinni and Sacchini the wind parts were usually doubled, with trumpets and horns playing identical music an octave apart, and the upper woodwind often in unison so that it is at times difficult to read their printed scores accurately in the absence of systematic labelling.

The man responsible for a new tutti style at the Favart was Dalayrac, whose work was first publicly given in 1782. Preoccupation with topical and exotic subject-matter went with an obvious sense of orchestral imagery. In Sargines (May 1788) the military rhythms and tumult of the succeeding style are already provoked by the mimed prelude to act 4, Ex. 136. Pages 203-4 show thickening of the tenor and bass spacing, and a vivid and dynamic separation not only of first and second violins, but of the brass and timpani and the remainder of the ensemble. Counterpoint of colour is achieved by polyphony and by rhythm; the rhythmic separation of the constituent elements becomes more acute at the harmonic climax and resolves, fortissimo, into the dramatic rhetoric of the single cadence that entirely occupies page 204. The harpsichord would have little to contribute to such music.

1) The passacaglia-like overture to Joanna (1802) is the nearest that Méhul approached to the interpretation of a contrapuntal form with the modern orchestra.

At the Académie Gluck's fullest textures with brass instruments did not involve noisy doubling. Even the appearance of the Eumenides (Tauride, act 2 scene V) achieves sonority by careful individual spacing of the chorus and orchestra: the alto trombone is the highest voice at the climaxes. Exceptionally detailed brass writing in solo vocal accompaniment is likewise informed by clarity created by such features as octave doubling of strings, dynamic markings, and lightening the rhythm of the brass parts (Aulide, p.206: Ex.137). After Gluck, Piccinni's contrapuntal overture to Atys remained an isolated if impressive venture in Paris. Movement of parts and harmony in full writing were more often sacrificed to splendour of massed effect. In Electre (Ex.130) full brass chords rival the strings and internal variations of rhythm alone remain to lighten the solidity. Example 138 from Piccinni's Didon of 1783¹⁾ is a similar passage with the chorus. Such pieces as the overture and animated choruses in Lemoine's Phèdre (1786) are directly comparable to Dalayrac's idiom, the cadences forceful and elongated.

Thus by 1788, in large-scale composition, homophony could call upon self-sufficient groups of strings, woodwind and, most exceptionally, brass. Example 131 shows Cherubini wielding all three as he was to do again at the end of act 2 in Osmide's air, "Ah! mon désespoir".

As well as power and internal rhythmic diversity in the tutti, the opera orchestra also exploited colour-counterpoint in the decorative violin line in quavers or semiquavers. This was a type of layout generally foreign to the symphony and concerto, where the violins had no melodic rival to decorate. In opera the massed winds or the chorus could provide the main focus. A famous violin gloss is shown in Ex.138 (this was a Revolutionary favourite) and an earlier one from Alceste in Ex.139, p.72. In more progressive idiom the idea appears in Sargines (Ex.136, p.207) as a

¹⁾ Ex 138 = Gluck

decoration to a choral hymn. The cellos "chantant" reinforce the chorus, and the pizzicato basses (often present in more experimental types of layout) enhance the clarity of colour-counterpoint. The rhythmic movement of the opéra-comique style seems here a telling help to orchestration and the contrast with the Académie style provokes comparisons with the revolution in operatic music that Mozart was making in the same decade in Vienna.

(iv)

The new sustaining techniques which replaced the continuo-articulated style were initially consolidated in the cadential tutti and afterwards in other strong and minimally melodic passages. In the symphony the equivalent places were the cadences and development passagework, music again emphasizing the motif rather than the melody. The typical appearance of held winds and moving strings was well suited to operatic pictorialism. In an early example from Gossec's Toinon et Toinette (1767; Ex.140) may be seen the basic 'storm' orchestration. This was used in Gluck's Tauride and many other pieces in which a simple harmonic progression at a slow rate of change allowed pedal and sustaining notes to be established.

Where this style incorporated answering phrases lay the foundation of the motivic continuum. Often a figure in the bass commanded almost as much attention as the upper melody. Gluck's "Je t'implore" opening act 4 of Tauride(Ex.101) repeats and develops a bass motif against the vocal line; an even more symphonic example, where the same figure is thrown between treble and bass (as in many symphonies, it is triadic), is the duet, "Fuyons les douceurs dangereuses" from Armide (see page 399 below).

A technique capable of distinguishing a motif through rhythm, register and colour was ideal for conveying rapidity of stage action and reaction. A voice might sing the motif as well as the orchestra: a reply is automatically expected. Essential for opera buffa ensemble work, the basic

means required were only voices and strings, as in Ex.3. In the orchestra alone and not associated with pictorialism the inherent drama of the style is found exploited in the overture to Cora and the prologue to act 2 of Cherubini's Démophon (Ex.141).

Sustaining in non-dramatic music meant the supporting of a melody, not the presence of motifs. Dances such as the musette were typical in that the static bass-line placed more attention on the contrast in timbre between the melody and its accompaniment. Where the style was transferred to the overture special attention was often paid to the accompaniment. Perhaps none beside Gluck used soft trumpets and horns to sustain in a pastoral (prologue to Tauride) but there was a fashion in any case for chordal preparatory music. With limited sustaining techniques this is observable in Grétry's 1773 overture to Le jugement de Midas. In the Allegretto Pastorale the characteristic 'musette' bass, viola and bassoons support the oboe. Le seigneur bienfaisant (Ex.13A) exhibits comparable traits and Salieri's Tarare (1787: Ex.142) opens with a long chord made up of horns, trumpets and bassoons alone. (It is interesting that the apparently Viennese use of the trumpet in sustaining music never affected Parisian contemporaries.) Tarare illustrates the progress from melodic to motivic thinking later particularly taken up in opéra-comique.

Perhaps one offshoot of the instrumental dance with sustained accompaniment was the last layout to be examined here; it is the design that stands behind "expressive medium" writing, to be examined in chapter 10. Andromaque (Ex.134, p.68) may be compared with the Themistocle of Philidor (1786; Ex.143). The similarities, beyond pizzicato strings and held winds, lie first in the slow tempo allowing the winds to come to the fore and second in the prominence given the clarinets, bassoons and (in Philidor) horns. The blending aims of the nineteenth century are adumbrated clearly.

Colour key:

- = Upper strings
- = Upper woodwind
- = Trumpet, trombone, timpani
- = String bass
- = Bassoons
- = Horns
- = General rhythm

(A) I with V

admit the dominant

Handwritten annotations in section (A):
 - "admit the dominant" with arrows pointing to notes in the treble staff.
 - "STOPPED NOTE" with arrows pointing to notes in the bass staff.

- | | | | | | | |
|-------------------------|-------------------------|-----------------|-------------------------|---------------------------------------|------------------------------------|-----------------------------|
| Haydn, Sym.
82, I/64 | Haydn, Sym.
85, I/59 | Ibid.,
I/267 | Haydn, Sym.
86, I/28 | Grétry,
<u>Andromaque</u>
p.259 | Sacchini,
<u>Chimène</u>
p.2 | Rigel, Sym.
(1785), I/44 |
|-------------------------|-------------------------|-----------------|-------------------------|---------------------------------------|------------------------------------|-----------------------------|

(B) I with diminished 7th

(vii^od)

Handwritten annotations in section (B):
 - "admit the dominant" with arrows pointing to notes in the treble staff.

- | | | | | |
|------------------------------|----------------------------------|---|---|---------------------------------|
| (1) Haydn, Sym.
85, I/181 | (2) Leduc, Sym.
(1777), II/52 | (3) Grétry,
<u>Andromaque</u>
p.289 | (4) Dalayrac,
<u>Sargines</u>
p.204 | (5) Méhul,
<u>Cora</u> f.171 |
|------------------------------|----------------------------------|---|---|---------------------------------|

(v)

The orchestral disposition of an isolated concord, especially before the use of valved brass instruments, presents little interest owing to the limitations of aims and resources. Discords in the tutti on the other hand posed problems of placing and emphasis that are of interest since the sound could be mollified or acerbated by the orchestration. The results of such decisions, compared according to harmony, are presented opposite; the examples have been selected to be as representative as possible of their composer.

(A) Approaches to an important cadence in orchestral music often used the multiple appoggiatura, resulting in superimposition of the tonic bass and dominant (usually dominant 7th) harmony. Examples from three Haydn symphonies show a preferred pattern of woodwind notes separate from and spread among the violin notes. The latter are often widely spaced. Clashes in this particular discord occur if the bass note is doubled upwards until it reaches a minor 2nd with the leading note or major 2nd with another dominant chord component. Haydn uses both clashes in chords 1, 2 and 4 - in the bass clef in no.4 - but Grétry and Sacchini only admit the major 2nd clash, well into the treble clef. Rigel clashes only in the violas and cellos and Grétry avoids the leading note completely. A further difference is that Haydn doubles the fourth and seventh degrees of the scale at two or even three (chord no.4) octaves, resorting in the latter cases to stopped horn notes to achieve this. Sacchini and Rigel do not double this tritone, although Haydn's acuter dissonances go with quicker rhythms.

(B) A related discord, likewise usually found in cadential music, is the diminished 7th over the tonic pedal. Chords 1, 2 and 3 have identical roots. Whereas Haydn does not double the root and even omits the note A, Le Duc divides cellos and lowers the violins to obtain clashes of major and

(C) Diminished 7th

Gluck, <u>Armide</u> p.182	Ragué, Sym. (1786), I/111	Haydn, Sym. 86, I/16	Grétry, <u>Le Magnifique</u> overture/212	Méhul, <u>Cora</u> f.177	Haydn, Sym. 84, I/226	Salieri, <u>Tarare</u> p.18
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(D) (i) Dominant minor 9th and II⁷ minor

(ii) I with flat 2nd or 6th

Gluck, <u>Tauride</u> Storm	Ragué, Sym. (1786), I/35	Cherubini, <u>Démophon</u> p.259	Gluck, <u>Armide</u> p.167	Haydn, Sym. 82, I/51 (exposition)	<u>Ibid.</u> , I/162 (development)
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minor seconds with the root doubled by the second horn. Grétry (see Ex. 134 for context) created the same clashes an octave higher and emphasized their violence by pitting horns against the first trumpet and violins. In chords 4 and 5 new solutions were found to replace the traditional spacing of wind and strings. Dalayrac (see Ex. 136) has the comparable clash in the tenor register, but unlike Le Duc doubles the root over four octaves and puts the trumpets above all the strings. The dissonant g sharp is banished by double-stopping to the lowest note of the first violins, lessening the harshness. Méhul (see Ex. 133) on the other hand, as well as doubling the root over four octaves places this leading note prominently at the top, scored for high first violins and woodwind. Against this the brass sound a major 7th lower.

(C) The diminished 7th alone posed fewer orchestral problems. No interval less than a minor 3rd being involved, practically any layout which included the bass and three upper notes might well have been written and sufficed. The orchestration could vary in the possible disposition of the tritones and 6ths: these details are too numerous to be analysed here. Chord 4 shows one layout often found, with doubled winds over strings, tritones in the centre and a 6th at the top. Chords 2 to 5 show the thickening that has been noted in the preceding discord progressions. However, examples 3 to 6 are interesting in that unlike most of the diminished 7ths noted in the remaining mode (on B flat) they admitted a tritone in the bass clef, using timpani. This fact, with the piled-up thirds in chord 5, suggests that this layout was recognized as sonorous since it could use the brass in E flat or D against the root. Thickening could also be achieved by multiplying the actual number of minor thirds within the chord; chord 2 has only one, but chord 7 has six. The latter chord and no. 6 are exceptional in that each multiplies all four component notes over at least an octave. More

often, one at least of the components only existed as a unison, for example chords 1 (unison e' flat) and 2 (unison b' and d').

(D) This section shows less common discords. They will be compared below with historically later arrangements, because their differences in layout are self-explanatory.

(4) Concerto and sinfonia concertante, 1789 to 1810

As almost all the concertos and sinfonia concertantes of this period exist only in printed parts I have not been able to study many. In quality the music seems routine and dull compared with many operas of the same period. None of the better composers cultivated the genres except Boieldieu in his rather slight harp and piano concertos and the young Auber with a violin and four cello concertos, the latter issued under the name of Lamare.

Some idea of the complete field may be gained from a statistical view of the orchestral resources needed. Using Brook's data 27 sinfonia concertantes are identifiable with surviving accompaniments. Original searches have yielded 104 concertos known or probably known in Paris, similarly with orchestral material extant for study. Of these only two sinfonia concertantes and two concertos used an exclusively string accompaniment. The proportions of other instruments employed in the accompaniment of all 131 pieces was as follows:

Flutes:	44.3%	Oboes:	86.3%	Clarinets:	23.7%
Horns:	93.9%	Trumpets:	9.2%	Trombone:	5.4%
Timpani:	19.9%				

Since bassoon parts were not printed separately they are assumed to have played the bass. This is itself a significant divergence of habit from theatre music.

The statistics bear out the patterns of instrumental use seen within individual concertos. The orchestra was little more than a frame to set off the soloist, and it was in bad taste to make the frame too conspicuous. Over half the concertos seen in detail omitted all wind instruments from the slow movement, and a further proportion omitted horns or some other wind instrument. More importantly, there were no important cases where the orchestral winds played other than in the ritornellos, themselves conservative and functional in design. Most concertos used only woodwinds, horns and strings all through.

Looking more closely at those concertos using trumpets and trombone it emerges that over half were in the major mode, and that they are fairly evenly distributed over the two decades. The appearance of the trombone in the concerto is as early as in the *sinfonia concertante*, where it was noted in Cambini's La Patriote by Brook.¹⁾ Although dating such music is hazardous without more detailed checks, the table of early trombone uses might stand as below.

1794	Rode	1st violin concerto	Dated by B. Schwartz, M
1795	Rode	2nd <u>idem.</u>	ditto
1798	Rode	4th <u>idem.</u>	ditto
1798	Steibelt	3rd piano concerto	Dated by Miller/ STEIBELT p.28
1802	Steibelt	5th <u>idem.</u>	ditto, p.45
1804/5	Auber	2nd cello concerto	Conservatoire concerts ² of 15 April 1804, 31 March 1805.
1810/ 11	Kreutzer	18th violin concerto (also called 'F')	Performed at a benefit concert for Lahoussaye (title page) who was still playing at the Académie in 1809. Termi nal date of printing 18 after Hopkinson/PUB.

- 1) This is dated 1796 without evidence by Brook, but the style of the title-page seems nearer to 1793-4.
- 2) The conjecture in this case arises because only one concerto by Auber (under Lamare's name) survives at the B.N. It was printed between 1803 and 1807, according to Hopkinson/PUB. Four are said by Fétis//to have been composed.
BU

Concertos employing trumpets and drums were composed by Viotti, Dumonchau and Baillot as well as the above. Viotti used them only in his 22nd and 25th violin concertos, 1792-3 and 1805,¹⁾ but his pupils included them more freely. They are found in Baillot's 4th, 6th, 7th and 8th concertos (ca. 1805 - ca. 1810), Kreutzer's 10th, 11th and 18th concertos (the first two of ca. 1800) and *sinfonia concertante* for two violins, Brook catalogue no. 1.²⁾ Rode used them in the three concertos above and also his fifth concerto (ca. 1800), 10th concerto (1804-8) and 11th concerto (ca. 1813). This accounts for all the examples except Dumonchau's 2nd piano concerto (undateable at present), Steibelt's 2nd piano concerto (? early 1790's) and the Steibelt and Auber works above using trombone.

Music from concertos will be quoted where appropriate in the ensuing discussions. It is clear however that the orchestration of the tutti was in its nature colour-homophonic, adopting the accepted formulae of unison, passagework and cadence. Although the works with trombone are interesting ipso facto they do not, on the basis of passages scored up from four of them, appear to contain types of orchestration not found in contemporary stage music. The trombone was included in the first place because the Feydeau and Favart employed one. The instrument may have improvised in concertos before Rode's, reading from the bass line. Trumpet music in concertos is naturally simple and sparse, but towards 1810 a slight increase in the difficulty of orchestral horn parts is noticeable. Stopped notes appear occasionally, especially b' and a' natural, and there is the rare demand for a change of crook during a movement, as in Kreutzer's 18th concerto.

1) Dating from MGG and Giazotto/VIOTTI.

2) Brook/SYMPHONIE omits the B.M. parts by André (shelf-mark g.94.e) and therefore also the instrumentation, which is for obs., cls., cors, tps. and timps. His unsubstantiated dating is ca. 1793, but the Pleyel parts are ca. 1803. The work may have been played at the Conservatoire prize-giving concert of 8 December 1800. (Pierre/CONSERVATOIRE p.968)

(5) Instrumental employment in opera, 1788 to 1810

Before proceeding to discuss the tutti in this period it will be useful to see what the trends were in the selection of instruments for the overtures and other movements of opera and opéra-comique. The results of this statistical work appear in six graphs placed at the head of the examples volume. For this analysis 262 works were divided into movements and overtures following the principles adopted in chapter 6. The total number of overtures analysed was 240 (181 opéra-comique and 59 Académie) and the total number of movements was 4,034 (2,444 opéra-comique and 1,590 Académie). Instrumental dances and entr'actes were counted with other internal movements; moreover, no distinction was drawn between movements containing one, two or three trombones. The object was simply to study the patterns of general use over two decades, and to this end the period was divided into six sections of three years and a final section of four years. All data up to 1788 was placed together and it will be seen from the total number of movements or overtures considered in each graph along the horizontal axis that the pre-1789 totals are roughly equal to that of one later period of three years. One reason for selecting this method of division was that spans of three years allowed comparisons with political events to be made fairly directly, and the political correspondences themselves are noted in the first two graphs under the relevant dates.

The first graph, opéra-comique overtures, shows general trends in exaggerated form. As in concertos, oboe and horn maintained high levels of employment; unlike the concerto flute and clarinet rose from very low to very high levels. This expansion and maintenance matches the provision in 1789-90 of clarinet players at the Feydeau and the Favart noted in chapter 3, but the more extensive use of the flute cannot be ascribed to increases in personnel. The rise in the piccolo curve must reflect the

three players at the Favart in 1789-1800 and at the Opéra-Comique in 1809 (see Appendix 2). Confirmation of this rests in the converging and diverging flats and piccolo curves before the Consulate, suggesting that the same players had to be used for both.

The trombone and trumpet curves follow the appearance and disappearance of these instruments that is documented in Appendix 2.

All these traits apply to the second graph, opéra-comique movements, but the overall picture is stabler and more representative of changes in taste and political pressures. In particular this graph confirms the first's indication of a general depression under the Directory followed by a high point under the Consulate. After this there is a further falling-off towards 1804-6, corresponding to the decline in the Opéra-Comique's popularity and its shoring-up by Napoleon. Then follows the consolidation following the Emperor's closing of the smaller theatres and his establishment of the official few in 1807. Seen in this light it is more understandable that the turn of the century should have seen the remarkable flowering of opéra-comique in a series of potent and advanced works: Ariodant, Le délire, Montano et Stéphanie, Beniowsky, and Les deux journées. The recession of the succeeding years coincided with the recovery of the Académie, the interest in Italian music and the lack of important and successful works by better composers. Méhul gradually turned to the symphony and Cherubini travelled and wrote the Mass in F.

As in the first graph it appears that the oboe underwent a definite decline in popularity and use from 1802-6 while the clarinet's use increased relatively before falling somewhat again. This position was anticipated in 1792-4 when the clarinet was marginally more popular than the oboe; from 1797-8, indeed, the clarinet retained this supremacy, which it had also

held over the flute from 1789. The high proportion of overtures using trumpets from 1789 to 1794 is but feebly reflected in the second graph. They were never versatile enough for general use, and attention was given instead to the trombone which could act in a number of capacities, technically speaking. It is remarkable, even so, that for almost a decade the trombone was used more than the piccolo and for about six years (see third graph) more than the timpani. In 1798 it approached within 12% the level of flute employment in 1791. With chapter 7 in mind it is not surprising to see that while the trumpet in 1810 was less popular than it was in 1788, the timpani was the opposite.

The third graph also shows how parallel the trumpet and timpani curves are, illustrating the persistence of their classical relationship. The curve for strings only mounts correspondingly during the Directory as most of the others fall, as if to echo the popular need for peace. But parallel rises in strings only and in the curves for wind instruments during the Terror and to a lesser degree from 1807-10 imply a higher average number of accompanying instruments in those movements containing winds. In fact, comparing overall percentages for the years to 1788 and 1807-10 there was a 9.3% increase in the average number of instruments employed per movement.

Graphs 4 to 6 represent equivalent statistics for the Académie. The gaps rendering continuous assessment impossible are caused by the cessation of new works for this theatre in 1795-6 and because only 8 of the 19 ballets and operas produced there between 1797 and 1800 and 1804 and 1806 have been studied in statistical detail: the issue is in part complicated by the presence of seven ballet scores with large proportions of borrowed music. The fourth and fifth graphs together provide a picture of a large overall increase in the average number of instruments used per movement

between 1788 and 1807-10 of 21%. Some of the traits shared with the opéra-comique are unexpected, such as the popularity seen in graph 5 of the clarinet at the end of the period and the lack of much increase in the use made of the piccolo. The distinctive features attributable in part to personnel increases are the rises in trumpet and trombone levels of use: by 1799 two trumpeters and three trombonists were available. Other interesting details are the oboe's maintained supremacy of use over the flute and the very high level to which the timpani (graph 6) rose by 1810: 43% of movements against 12% in opéra-comique. There is a decline towards an insignificant percentage in the number of movements heard with strings alone.

The musical revival of this theatre under Catel, Cherubini and especially Spontini was therefore matched by the political impetus that made required numbers of instruments available and by a taste for using these resources fully. Before 1789 both tragédie lyrique and opéra-comique movements used on average 33% of available resources; by 1810 the Académie used 54% per movement and opéra-comique 43%.²⁾ These figures are the background for the changes in tutti practice which must now be described.

(6) The tutti from 1789 to 1810

a) Unison writing

As the most elementary and traditional form of concerted writing brief mention of the unison is necessary. The difficulties in arranging any form of unison theme other than a triadic one, owing to the limitations of the brass, were sometimes tackled.¹⁾ In the symphony conjunct unison passages based on the strings and still bearing the minatory flavour of

1) Ex. 15 represents an extension of the triadic type of unison and an attempt to include horns and trumpets in it.

2) 9 operas by Cimarosa, Paer, Paisiello and Sarti given in Paris 1789-1808 in smaller theatres yield the following percentages from 179 movements: str only 2%, fls 39%, piccs 1%, obs 78%, cls 25%, cors 91%, tps 15%, tbi 0%, timps 6%. These figures are roughly comparable with those for French concertos.

their baroque counterparts seem to have come most frequently at the climax of passagework, usually downward in direction. When this imagery was transferred to the tutti the horns and trumpets, as in Ex.102, could be omitted or given notes that did not fit. About three decades later Catel's Sémiramis overture opened with an analogous outline on the full orchestra. This was partly made possible by having the trumpets play an unusually exposed b' flat which would almost certainly have required tempering (Ex.144, pp. 0 and 1).

The trombone writing in this passage was not unusual. Quite soon after their Parisian début Edelmann used a single instrument in the unison. The apparent casualness of this effect in Ariane (1782; Ex.308) actually represents an important innovation whose influence, possibly through the composer's pupil Méhul, led to widespread trombone doubling of the bass. In the earlier 1790's considerable imagination went towards exploiting forceful unisons. Example 145 shows _____ a passage from Le Sueur's Paul et Virginie, owing something to Italian finale techniques, and _____ from Méhul's earlier Euphrosine (1790). Here the traditional image of descending chromaticism is reversed and instead of a straightforward doubling of the vocal parts there appears a disjointed upper and lower tonic pedal fighting rhythmically and harmonically against the voices. The illusion is that the trumpets are participating more than they actually are. The associations of power and darkness persisted also in new sub-groupings of unisons where sometimes greater subtlety was shown than could be achieved by strings alone.

Handwritten musical score for Example 145. The score is written on five staves. The top staff is for Violin (vle) with a 3/4 time signature and dynamic markings 'cc. cc. cc. cc.'. The second staff is for Basses (Bassi) with a 3/4 time signature. The third staff is for Timpani (Timp) with a 3/4 time signature and a dynamic marking 'p'. The fourth staff is for Horns (Corns) and Trumpets (Tps) with a 3/4 time signature and dynamic markings 'ff' and 'p'. The fifth staff is for Horns (Corns) and Trumpets (Tps) with a 3/4 time signature and dynamic markings 'ff' and 'p'. The score includes references to composers Berton, Spontini, and Fernand Cortez, and mentions 'Introduction to act 3' and '74'.

b) Crescendo: ⁱⁿ diminuendo

Académie and larger orchestras: The building up of tone through graded contributions from different instruments (seen in Electre and Démophon) was in the next two decades extended in principle by length, dissonance and sensationalism through the addition of percussion. The timpani roll became a normal participant and the brass more freely used. The code of Catel's Sémiramis overture has a crescendo over 34 bars over a timpani roll, with dissonant clashes (analysed in section (f) below) caused by the upward extension of the timpani note on the trumpet. Spontini too favoured this method of winding up an overture, though he does not match Catel's harmonic excitement.

These purely musical examples had their source in the innumerable march-choruses with which the Académie was infected from its Revolution days. Ballets like Psyché and Bacchus et Ariane used the triangle, cymbals and tambour with some frequency, before the fashion spread to opéra-comique in comparable profusion. It would be tedious to analyse their orchestration, of necessity simple in harmony and texture. But these pieces remind us that the actual timbre of an orchestra alters as its volume increases; different instruments emerge at different levels according to pitch and rhythm. No composer, whatever his attitude to his art, ignored this aspect of the orchestra.

Better composers naturally used more sophisticated details. The "Air pour les Africains" from Sémiramis (Ex.144, p.125) employs the still unusual technique of a trombone crescendo chord, and powerful rhythmic patterns in the upper brass and bass, emphasized by cymbals and bass drum. In using the tam-tam in a similar way in Cortez (Ex.27) the composer was adapting a known technique to a new instrument. This example is unprecedented also in its transference of the string technique of the alternating tremolo to the winds, in the desire for a more violent crescendo. The brass, underpinning

in heavy repeated quavers, function similarly to Catel's.

A possibly Italian influence was revealed in the use of repeated string figures or semiquaver gloss during the crescendo. The Conservatoire composers were never very happy with the emotional effect of this but they could not ignore its implications for their own music. In the largest-scale example, the assembly of the shades of the heroes in Méhul's Chant National (Ex. 49), a rhythmic ostinato diverts the attention from the activity of the violins over the length of the two crescendos, 32 and 30 bars long. Mere repetition is mitigated also by the cross-rhythmic patterns of the second orchestra strings, the answering brass summonses and finally by the brief but essential diminuendo. The whole sequence, the largest purely orchestral one in the work, is the most imaginative working of a long crescendo in the period. Between the two crescendos a soloist explains the pictorial and intellectual purpose of the music, so that the resulting relationship of music and hearer looks directly forward to Berlioz's art in general.

One new aspect of French writing that demonstrates interest in the loud and soft timbre of the ensemble is the $\langle \rangle$ construction on a larger scale than hitherto. Examples 146 and 147 (Lemoine 1790; Cherubini 1804) show two different approaches. The earlier is simpler technically, yet not without sensitivity in the violin writing both in imagery and acoustic fitness. Cherubini is ingenious, and the passage is fascinating beside a similar one of 1788, Ex. 131. The latter is more rhythmically defined and regular in layout, the chord (like the majority of the time) not tonally blended between strings and wind. Blending in Achille à Scyros is everywhere present. Unison violins form a transparency in the treble register, discreetly supported by high violas. Trumpets enter softly, then drop out for a bar; here the oboes take over their note.

For the diminuendo similar skills are especially evident in the held flute note and dropping away of the cellos.¹⁾

Smaller orchestras: Just as it had been fashionable to end Académie acts with a diminuendo in the 1780's so in the next decade the practice was imitated in opéra-comique, for the same purpose of helping an acting chorus disappear. In 1791 Kreutzer ended the first acts of Lodoiska and Paul et Virginie in this way, Cherubini following suit in his Lodoiska. Two years later Le Sueur ended La caverne with a "Suit du Final" whose last eleven bars bring down the final curtain quietly. Others followed the trend more conventionally.

The practice of beginning an act with a crescendo was established in Kreutzer's Lodoiska where the mimed overture is actually a march depicting the approaching Tartars and their captive women. (Such features doubtless helped attract the public away from Cherubini's version.) Kreutzer invented a good tune and orchestrated it with trumpets and horns even in the crescendo. A piccolo added glitter at the climaxes.



From here it was a short step to the introduction of percussion in analogous music, and the introduction of marches within an act.²⁾ The first definite instance is the first act of Plantade's Palma (1797; Ex.148), which was one of the first of a long line of orientally staged works. In Palma the simple homophony is given a sense of increased anticipation owing to the omission of all the strings. Dalayrac's Gulnare ou l'esclave persanne (January 1798) has a 'Turkish' overture with percussion and four months later

¹⁾ The same composer's Anacréon overture (1803) and elegy for Haydn (1804, Ex.91) contain comparable efforts.

²⁾ Earlier opéra-comique scores were haphazard about unusual percussion with the orchestra. Grétry's La Fausse magie (1775) has a "Marche des Bohémiens" (p.143) with cymbals, triangles etc. not notated. Melodramas probably used the idea.

Boieldieu's Zoraime had the chorus enter playing triangles and oriental drums, with cymbals in the orchestra. As will be seen below, composers became more sophisticated under the Empire.

As well as the employment of sforzandos and generally strenuous figuration the orchestra of opéra-comique had by 1794-5 absorbed broader principles of contrast in the tutti. Méhul's Mélidore et Phrosine (Ex.149) has in its climactic ^{scene} stormy writing of extreme dynamics, piano to fortissimo within the space of single bars. The use of the brass to achieve rapid gradation of volume is followed by Dalayrac in a general crescendo in Adèle et Dorsan (Ex.150): this writing may be categorised as colour-counterpoint in a situation which in the symphony would have used the instruments in dynamic parallel. It is a blended crescendo out of which different features emerge.

Another effect, the orchestrated crescendo of a chord-sequence of basically colour-homophonic nature, was expounded later in original passages by Cherubini and Berton. Médée (Ex.151) employs expertly laid-out strings in Créon's invocation in a web of expanding timbre. The invention has a simplicity characteristically inimitable in other media.¹⁾ Example 152 (Montano et Stéphanie) builds up a blended sequence of chords, and is the best example found of crescendo by aggregation.

The colouristic approach to aggregation is found in an ingenious passage from Spontini's Julie (1805; Ex.153). Double-basses are omitted until the climax, and both violas and cellos are divided. The singer often provides the actual bass-line. The complex chording is lightened by rhythmic cross-accents; only the second clarinet sustains. Unlike Berton's example, those instruments playing, when others enter, change their pitch.

¹⁾ Cf. Ex.146 and Ex.115, p.77, identical in their musical and dramatic imagery. The impressions are mechanical in retrospect.

While most diminuendos were harmonically repetitive or confirmatory there were those which involved particularly instrumental poignancy. Two similar passages by Méhul and Viotti (Ex.154; 1790, 1792-3) use a 'slowing down' of the metrical and harmonic rhythm. With the attention on the upper woodwind the music moves to a new plane of feeling. The deliberate ambiguity of the harmony is simultaneously stabilised and enhanced by the wind timbre's disembodied quality.

c) Chords

Académie: The many pièces d'occasion of 1791-4 used the musical language of the late 1780's and made little headway with developing the detail scoring of chords. As the fourth graph shows, however, trombones, trumpets and clarinets were more widely used throughout. Some passages, growing out of the tighter expressive controls applied to these instruments and the timpani, added to colour-homophony by the use of independent figures.

1791
Bacchus et Ariadne, f.344
 (Rocheffort)

The image shows two staves of handwritten musical notation. The top staff is labeled 'TUTTI' and is in treble clef with a key signature of one sharp (F#). It contains a series of notes and rests, with a dynamic marking 'f'. The bottom staff is labeled 'TIMP' and is in bass clef with a dynamic marking 'f'. It contains a series of notes and rests, with a dynamic marking 'f'. The notation is handwritten and appears to be a sketch or a study.

This is what might be termed 'extension' scoring, that in which the orchestra is designed to produce an apparently straightforward aural effect by a means too detailed for the ear to detect in passing. La Vestale p.322 (Ex.155) is an advanced example, for not many of the notes played in the second bar are meant to be heard in themselves. There is at the end of it a carefully notated staggering of the entries: Rocheffort's principle applied

to the tutti. The brass first, then strings and flute, then oboes and clarinets, then brass, then woodwind again are all preparatory to the first chord of the next bar. More often string extension writing against chords occurred simultaneously with the main beat; c.f. Ex. 10 bars 3 to 6, which represents a halfway stage between traditional supremacy of the strings and their later 'extension' function.

In a similar key and metre to the Spontini another broad chordal passage from Porta's Les Horaces (Ex. 14, f. 191), was added to by a sheen of upper string activity which suddenly diminishes as the chords cease. This was an inspired stroke of colour-counterpoint, since simple means are transformed into a gesture wherein it is implied that the chords are 'supporting' the high demisemiquavers and that these fall away once left alone. With the bass line as a third dramatic component the chords become but one part of a whole sound-structure. In other words, their traditionally illustrative rôle has been transformed into a passage in which the orchestra alone speaks symbolically. We find, moreover, that this interesting invention accompanies a climactic tableau vivant of extraordinary associative power, namely of J.-L. David's "Le serment des Horaces". The three young and one old Horace are "En attitude en formant le tableau".¹⁾ Perhaps difficult to imagine, but nonetheless true, is the fact that the audience was assumed to know the painting and its superimposed image of revolutionary solidarity. The musician matched it with a commendable, even parallel, manipulation of symbols.

Chords as percussive entities could be split up within the ensemble both so that winds cut into string-based music, and vice-versa. The latter was rarer: in Ex. 156 from Winter's Tamerlan strings and brass punctuate

¹⁾ B. de l'Op. copy-score A.375(2). See R. L. Herbert's J. L. David: Brutus (London, 1972) for the long case-history of the cultural and political ramifications of another masterpiece by this artist.