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An Experiment in Orchestration: Prelude an Original Composition for Symphonic Band

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AN EXPERIMENT IN ORCHESTRATION:

"PRELUDE," AN ORIGINAL COMPOSITION

FOR SYMPHONIC BAND

by

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HISTORICAL PERSPECTIVE

From ancient times to the present, music has been composed for instrumental combinations as well as for single instruments. The manner in which these combinations were utilized depended upon current compositional practices, especially those regarding form. In the Baroque Period instrumental ensembles were formed according to the composer's discretion. The tone color embodiment of a particular musical work was set more by the composer's choice of instruments to be included in the ensemble than in his use of instruments as independent tone color sources. The Baroque composer's use of instrumental color was in this way consistent with his use of highly integrated movements, which lacked sharp contrasts, a feeling of periodicity, or antecedent-consequent phrasing. The sustaining of one mood throughout an entire movement was accomplished compositionally through the elaboration of the theme in sequential repetitions of the phrases, and orchestrationally through full ensemble scoring.

The Classical Period's concept of form was similarly reflected in its orchestrational technique. Larger works were organized into contrasting movements. These movements, in turn, were comprised of contrasting sections which themselves contained contrasting elements. A sense of unity was maintained, in part, through the balancing of the movements within the larger work. This defining of the elements of form through the juxtaposition of contrasting phrases, sections and movements brought with it the juxtaposition of contrasting tone colors. Tone color now changed in phrase lengths. These changes served to highlight the

formal elements.

In the Romantic Period the regularity of the formal aspects diminished. The desire for contrast, however, remained and received new emphasis. The tone color was changed more freely and came to be considered an element of the composition rather than something which came after, and was therefore dependent upon, the composition. Impressionism placed such importance upon the change of instrumental tone color that it could stand as the dominant element of a composition. More recently, serial composers have sought to control tone color in the same manner as they control pitch, dynamics range and expression, so that tone color might be made to change with each note.

It can be seen, then, that through the course of recent musical history, the element of changing tone color has become more independent of other compositional aspects and that the composers of each historical period increased the rate of tone color change. While this historical precedent does not make further growth in this direction valid, it does indicate that further development in the direction of tone color independence and a further increase in the rate of change of tone color might be sought after at this time.

OBJECTIVES

In "Prelude," the attempt has been made to explore in these areas of tone color dimension. Change of tone color takes place more rapidly, even within the duration of single notes, and a control over the metamorphosis of tone color throughout the composition has been attempted as a means of achieving increased independence of tone color from the other aspects of the composition. "Prelude" further serves the purpose of investigating the effectiveness of color-coded notation for more efficient score reading and use of rehearsal time. It is intended that this project will increase the tone color potential of the symphonic band.

"PRELUDE"

Pitch Distribution

In this composition, a twelve tone row is used as the basis for pitch distribution. Pitches are not repeated until all other pitches, in the order established in the row, have occurred. Tonal centers, in which one pitch is allowed to dominate, rhythmically or dynamically, are, however, of importance. All voicing is close, in order to inhibit the exploitation of tone color as a function of harmonic spacing. The deep bass and the high treble were generally avoided due to the lack of a large variety of instruments capable of performing in these ranges.

Melody

Melody is here conceived as the interaction of one voice with other voices. While this may not produce a melodic line which is memorable in itself, the melodic movement acquires an inevitibility from the continued recycling of the row, and therefore becomes comprehensible and meaningful when taken as the sum of the voices. The germinal cell consists of a single note which is held as other voices enter singly to establish the row, finally forcing the first note's pitch upward in syncopation, resulting in a temporary suspension of movement in all parts by the end of the first measure. An extension of this then occurs in the second and third measures.

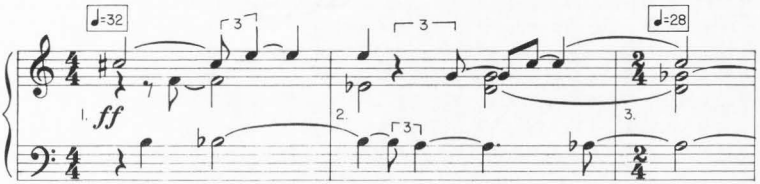


Figure 1. "Prelude" thematic material, measures 1-3.

This immobility is then relieved by movement in the top line, again syncopated, but which now moves on the metric units as well as after.

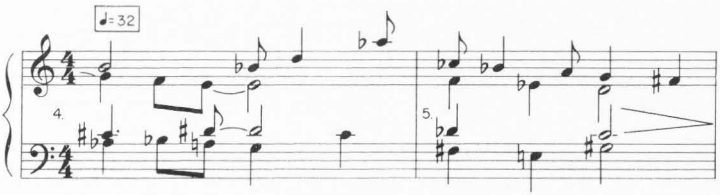


Figure 2. "Prelude" thematic material, measures 4-5.

These two musical ideas, one in reaction to the other, provide the thematic material for the entire composition.

Orchestration

Control of rapid tone color change

The manipulation of tone color change within the duration of a single note makes the number of changes within even a single measure of multiple voice lines difficult to control without some system of orchestrational notation. In the Figure below, the total number of colors to be mixed is indicated below the half note, which is the rhythm-pitch unit to be realized by the sum of color changes, by the number of dots in each vertical stack. Each dot represents a different tone color. Moving horizontally, each dot represents a half count, as indicated by the eighth notes placed above the half note.

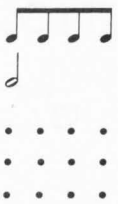
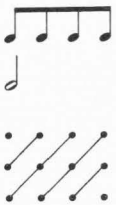


Figure 3. Tone color change notational layout.

The pattern of tone color change is then indicated by lines drawn through the dots. The connected dots represent the continuation of a single tone color through the rhythmic unit(s) of color change.



The three color mix is constant,
one color change each half count,
with one color in, one color out
at each change.

Figure 4. Pattern of tone color change notation.

Instruments, or groups of instruments, may then be assigned to each of the dots. Their order of entrance is from top left to bottom, to bottom right as indicated. In this case, with a three color mix, the first three tone colors enter together.

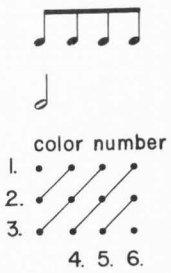


Figure 5. Instrumental assignment to pattern.

The instrumental parts are then transposed from concert pitch and rhythmically interpreted upon the full score.

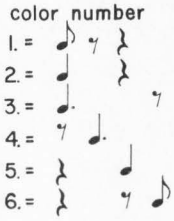


Figure 6. Rhythmical interpretation of tone color notation.

Some other possibilities appear below:

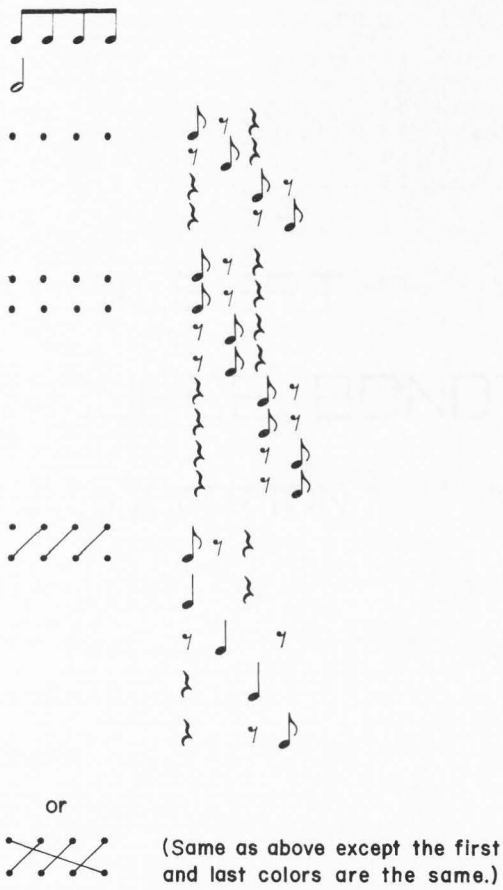
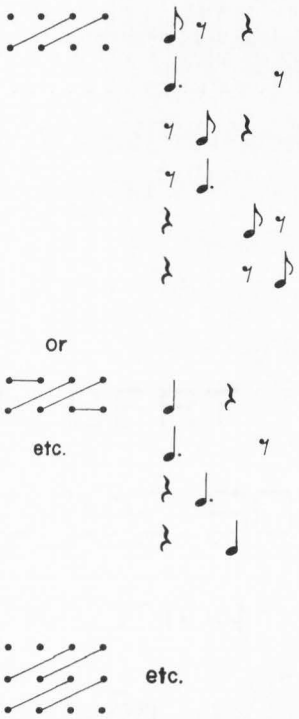


Figure 7. Other possibilities of tone color pattern. (continued)

Figure 7. Continued.



Dynamics in rapid tone color change

Dynamics can also be influenced by the amount of color mix employed, along with dynamic indications in the parts.

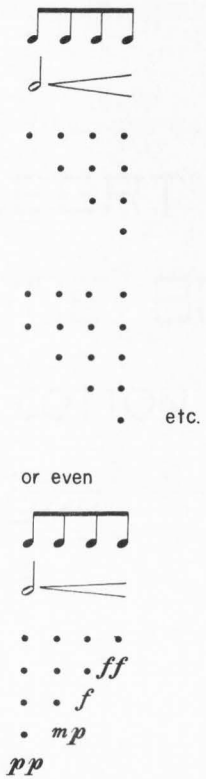


Figure 8. Dynamic control as a result of color mix and dynamic indications.

The sequence of the particular instruments in the tone color change can also effect dynamics.

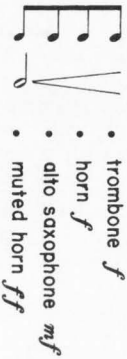


Figure 9. Dynamic control as a result of instrumental assignment.

Color coded notation

In addition to the orchestrator's balancing tone colors which are dynamically unequal because of range and quality differences, through compensating dynamic marks, the performers themselves must be able to perceive their part as contributing to the voice line, so that the need for an additional symbol in the parts and score to indicate in which voice line an instrument is participating now becomes apparent. There is otherwise no clue to the performer or to the conductor what the shape of the line or the realized length of any given note might be, because the shape of the line and the realized rhythm is the sum of many notes, scattered, in transposed pitch, across the score. Each of the voice lines needs to be identifiable if it is to be isolated and understood for rehearsal or for proofreading. Rather than add more information to

the score in the form of letters, numbers, or other symbols, which could clutter the score and parts unnecessarily, the notes can be rendered in color, with a separate color to designate each voice line. To accomplish this, the voice lines are simply assigned colors at random and all tone color combinations contributing to one particular voice line receive the same color in the score and parts.

Tone color shape analysis

As the factors governing tone color change are applied to a group of notes, such a large number of instruments may be required that some system is needed to shape, control, and analyze the work in progress. Analysis becomes difficult if the full score is seen as the fragmentation of the voice lines, even though color coded, and the work sheet already described is a mass of instrument names and dots. The following chart allows the orchestrator to collect the work in a comprehensive form for evaluation before the notes are committed to the full score.

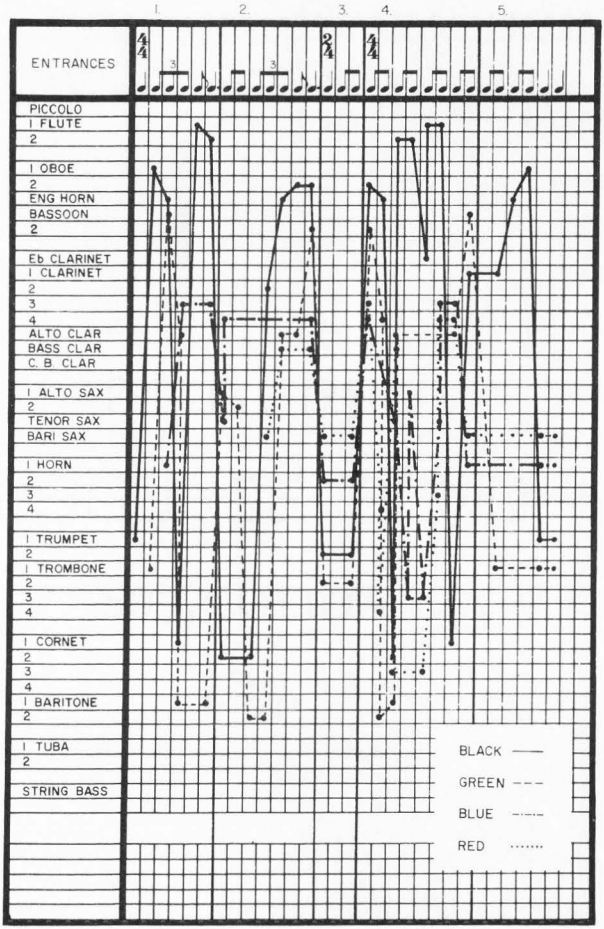


Figure 10. Tone color shape analysis chart from "Prelude," measures 1-5.

Control of the resources of tone color

As simultaneous voice lines are orchestrated, each requiring large resources of instrumental color, the orchestrator is in need of a system which will allow him to know which instruments are available for use at each change of tone color. The following chart serves such a purpose.

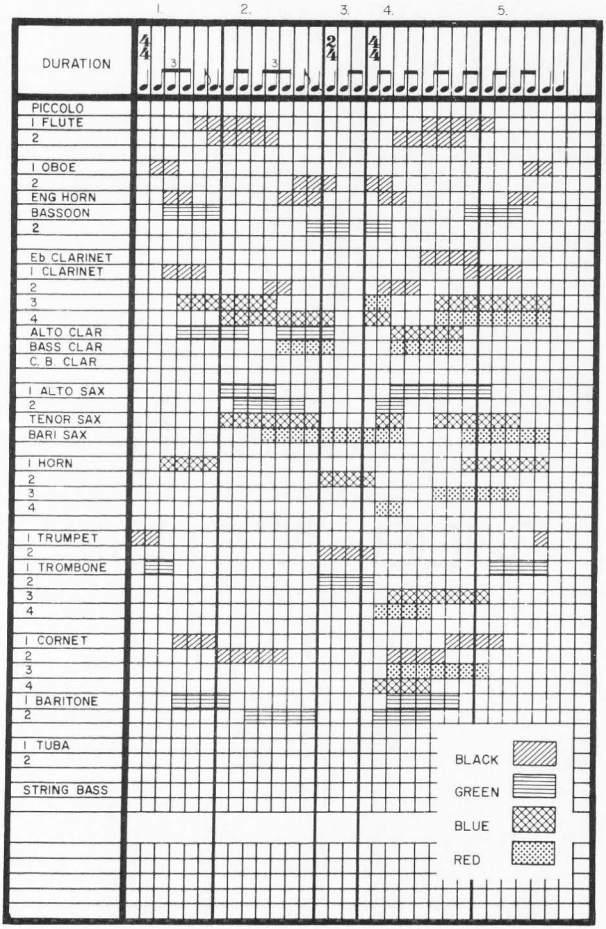


Figure 11. Tone color resource control chart from "Prelude," measures 1-5.

Instrumental color is, of course, something which the orchestrator needs to be in command of, taking into account the number of instruments in each section for a determination of dynamic weight, effective instrumental ranges, and the effect upon a tone color when mixed with other tone colors. A pattern of movement of tone color can only be possible if the orchestrator is aware of such similarities and differences among the instruments at his command to make a flow of color evident to the listener. If this is assumed, then such analysis can lead to the further integrating of color shape changes from one phrase to another, and can lead the orchestrator in a systemmatic manner to tone color mixtures which are implied through the over-all color metamorphosis of the orchestration. Tone color change can thus be shaped and controlled in the same manner as other compositional elements, because its notation makes it subject to analysis.

Control of the aural flow of tone color

The following Figure demonstrates the manipulation of tone color made possible by its notation.

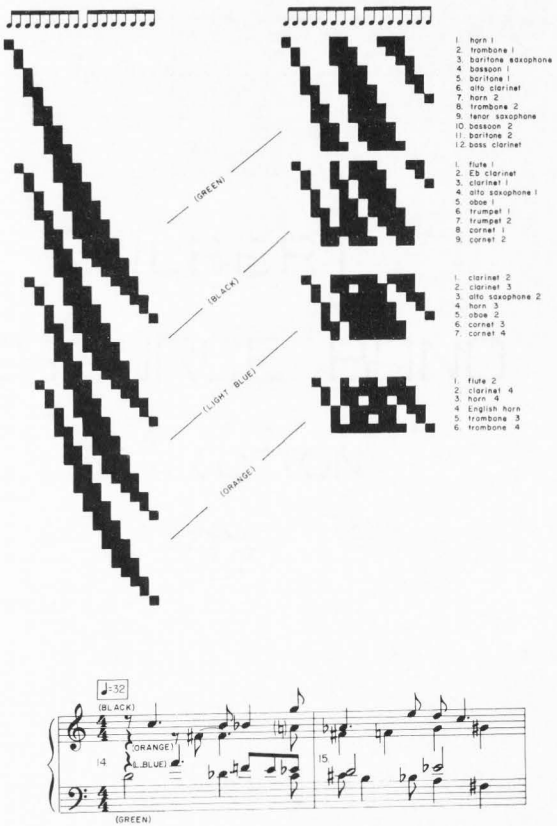


Figure 12. Phrase shape notation example from "Prelude," measures 14-15.

SCORE LOCATION AND THESIS CONTRIBUTION

It is by now obvious that "Prelude" can only be read with a color-coded score. Because of the financial and technical problems of reproducing this large score in its seven colors, the score is not included as a part of this paper, but is available for reference in the library of the Music Department of this university.

The recent interest shown by composers in electronic music and their continued interest in writing for the symphony orchestra has to a very large extent all but excluded the symphonic band as a medium for serious contemporary music. The symphonic band, however, makes available larger resources of dynamically equal tone color than any other standardized organization. It is the writer's hope that "Prelude" will contribute to the literature for the symphonic band.

VITA

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Master of Arts

Report: An Experiment in Orchestration: "Prelude," an Original Composition for Symphonic Band.

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Education: Attended Ogden City Schools; graduated from Ogden High School in 1955; attended Weber College, 1955-57, 1960; received Bachelor of Science degree in music education from Utah State University in 1962; completed requirements for the Master of Arts degree in music education at Utah State University in 1970.

Professional Experience: Instrumental music teacher at North Cache High School, Richmond, Utah, 1962-63; instrumental music teacher at White Pine High School, Ely, Nevada, 1963-65; instrumental music teacher at Wahlquist Junior High School and Weber High School, Weber County Schools, Ogden, Utah, 1965-68; continuing at Weber High School only, 1968 to the present; currently Chairman of the Division of Fine Arts, Weber High School.