

About the Music Program at Livingston College

/as of 1975

Principles. (1st Section).....prepared by Philip Corner, approved
by consensus of Department members.
(Followed by sections detailing particular parts of the program,
and contributed to by the various persons responsible for them.)

We start by recognizing ourselves as musicians in America in the 20th Century. This is a basic fact of our existence.

The program which we are putting into practice intends and attempts to be in fullest accord with that.

What follows is a simple and clear statement of just what it is we are doing. We feel that we are building something in response to a necessity: it is the times themselves which demand our efforts in this direction. Our hope is to elicit, on the part of those who read this, an enthusiasm similar to ours, and this "invitation" is to be the emphasis--though at least an implication of criticism can scarcely be avoided. (We are obliged to state, therefore, at the outset, that the validity of objections would have to come from the direction of further progress, an even better realization of such an ideal. That would serve a constructive purpose that would be impossible from the point of view of "not yet having attempted as much.")

The two premises underlying the program here set forth may be perhaps summed up in the one word "integration." Its meaning is more than the self-evident multi-ethnicity which brings together the musics of more than one cultural frame only. It means also the harmonizing of intellectual and practical aspects of music-making, the favoring of creativity.

These principles might seem natural (indeed they seem so to us!), so much so as to hardly require the statements. On the contrary, a cursory look shows that what is generally accepted is something other than this. Neither are the principles universally shared nor the commensurate procedures acted on.

Re the necessity of a global vision: The assertions are that we are now living in a period when it is hardly possible to remain in a state of ignorant separation from the contributions of the world as a whole; that it is not at all desirable to do so; that narrow experience has a way of tending to make us arrogant, undermining the seriousness of our ideas and generating evil social consequences; that when provincialism becomes ingrained as an att-

itude it inhibits progress; that much if not all of our contemporary achievements in the field of music are directly traceable to global influence; that even in a purely practical sense the knowledge of the widest range of possibilities has become necessary; that improvising as well as literacy is a valuable tool; that these are essential from the point of view of creating new music; that we are, especially in America, surrounded extreme stylistic co-existence; that our fair-mindedness may well be a factor in the successful dealing with our society; that one of the best ways of confronting current problems is in the role of teacher, and that the way to promote acceptance of our own beliefs is through receptive attitudes fostered by our own openness. All this is in our own self-interest.

By making the course of study more than a mere conforming to some set of stylistic norms, the individual student would be led towards a truer self-development. This in no way, however, contradicts the learning of any given requirements of a cultural convention.

Even though these propositions seem to us scarcely questionable, there is collected documentation of support and elucidation in an appended bibliography.

There follows a summary "Education Plan" setting forth the hierarchy of "Ideals & Purposes", "Principles", "Practices", arranged to show the causal interconnections. A chart visualizes how these take shape in our current setting.

We would like to consider what kind of faculty would have to be found in such an institution. It is accepted that knowledge of both present activities and historical traditions of the art should be required. In whatever specialty, one would expect that the literature would have been read, and that contact would be maintained with current practitioners. Individuals take part in these activities. In addition, no failure of the ability to do some performing, to communicate in this way one's loving involvement. Such performances might be perhaps simply the singing of a song, and the using of it to elicit participation. In this way will a subject be introduced by way of live music itself; from this "doing" follows all the listening and the reading and the talking. This teacher/musician could create original work usable in classroom situations.

There are great inherent difficulties in the way of playing together, when the musicians are "different kinds." This faculty will attempt to do so. It seems a worthy thing to confront. At the very least there would be an expression of mutual respect and appreciation. The benefits, as such an attitude spreads to the students, seems incalculable. And it is not impossible for extraordinary accomplishments in the making of new music to take place.

Is it not valid to regard the potential for such contributions as attributes of competence just as much as facts and techniques? This explains some of the difficulties and long delays we had to experience in finding the right people. In the ethnic field especially, there is a prevalence of the type of scholar who cannot make the music "real". They must thus rely uniquely on tapes and talk. Not only does this make for dull presentations, but—worse—shows that the factual knowledge as been accumulated from the outside, as it were. The intimate involvement required to do justice to these musics (as indeed, any music) could come from only two kinds of background: either a person from the "third world" who has acquired a global perspective, or by a "Westerner" who has gone to be at the feet of a master.

In making such choices, we face the unavoidability of naming styles. This is a question, however unpleasant, which must be faced. Confusion is generated not only by the extreme complexity and fluidly defined boundaries of the subject areas, but also from resentments which sometimes surface because of the suspicion of pigeon-holing. Nevertheless, those types of music which remain unnamed are likely to remain unrepresented. We are prone to thinking of ourselves as infinitely generous, claiming "all music".....or at least "all 'good music!'" In actuality, no one is capable of accepting everything—not to speak of even being familiar with it. Opinions and mere value-judgements mask an almost total incapacity to relate to anything even slightly different from that

tiny portion with which we are already familiar. However, reasoned judgement and a good will serves to offset these unavoidable biases.

One thing to be done is nothing more than honesty. We at least define our courses by the clear communication of the presupposed limits. The names are not "Fundamentals of Music" or "Basic Musicianship" when in fact the "music" is going to be restricted to that of a few centuries (more or less) of some music of some people of some countries (more or less). We could hardly dare to call our department one of "Music" were we engaged in so grave a misrepresentation. How far does one have to look for the consequences in social injustice and resultant antagonisms? Is it not clear that the overvaluing of one cultural form vis a vis another feeds other dimensions of prejudice, and ultimately attaches to the very distinctions of class and race and locale which are applied to people themselves?

A usable classification (rough and overlapping, but generous) might make sure of these inclusions: "Classical", "Ethnic", "Jazz", "Popular", "Folk", "Avant garde. To be sure, there will always be some leanings toward the most immediate local "relevancies." But this will never be a tight system of exclusion. Incidentally, this principle affects more than curriculum: within the core "Theory" classes in particular, materials used will always have a place for choices made by students. Exploration is encouraged, and none of the representative involvements may go unheard.

This department has not had the resources to implement this to the ideal extent. Surely it is, though, a step beyond general standards.

(Reference to the catalogue and "major" requirements is recommended.)

An additional thought: A program like this is not limited in its value only to situations which contain obvious ethnic minorities. Imagining the most homogeneous and stable cultural environment, it would still be desirable to expand the available forms.

On this point, a potential objection may be spoken to: Would not there be a resultant superficiality? This danger can be admitted. But it is no more than academic limitation, which guarantees no profundity. A mass of rules give the impression of thoroughness. This is illusory, being a closed system of abstractions. By acting as a barrier to sensitive perception of sound itself, a method is just as likely to inhibit the kinds of awareness which lead to transcendence of formulas. Effective uses of "law" are based on real qualities. We therefore feel that our method goes deeper into the heart of creative potentials. Orthodox ways have tended to impose a body of sterile and archaic generalization on the assumption that "If you've got it, you'll make it through anyway." The reply is, "There's got to be a better way!"

EDUCATION-PLAN (MUSIC)

Here state the IDEALS & PURPOSES:

1. Self-development of individuals; satisfaction.
2. Contribution made to quality of our cultural life.
3. Appreciative respect for heritages preserved.

Here set out the Consequent PRINCIPLES:

1. Treat the music in a way which favors equally
 - a/ practical
 - b/ theoretical
 - c/ creative concerns.....
 (encourage the uniting of insights and abilities in each student.)
2. Choose musics from representative sources:
 - a/ immediate surroundings (indicative of contemporary development; inclusive of styles representing the interest/involvements of individuals present.)
 - b/ tradition traced historically back through time; cultures separated from us by remote geographical location.

Here plan the requisite organizational PRACTICES:

1. First level, basic courses, to prepare the groundwork, those necessities of wide-experience & ideas which encompass.

Focus on:

 - a/ Survey ("literature")...global perspective.
 - b/ Training practical abilities...an instrument specialized in; control of fundamental tools (voice; percussion, keyboard.)
 - c/ A theory---searches towards adequately inclusive definitions and principles. Generates creative applications--inspires them.
2. On more "advanced" levels are the refinements, the concentrations particularizing areas within this frame.

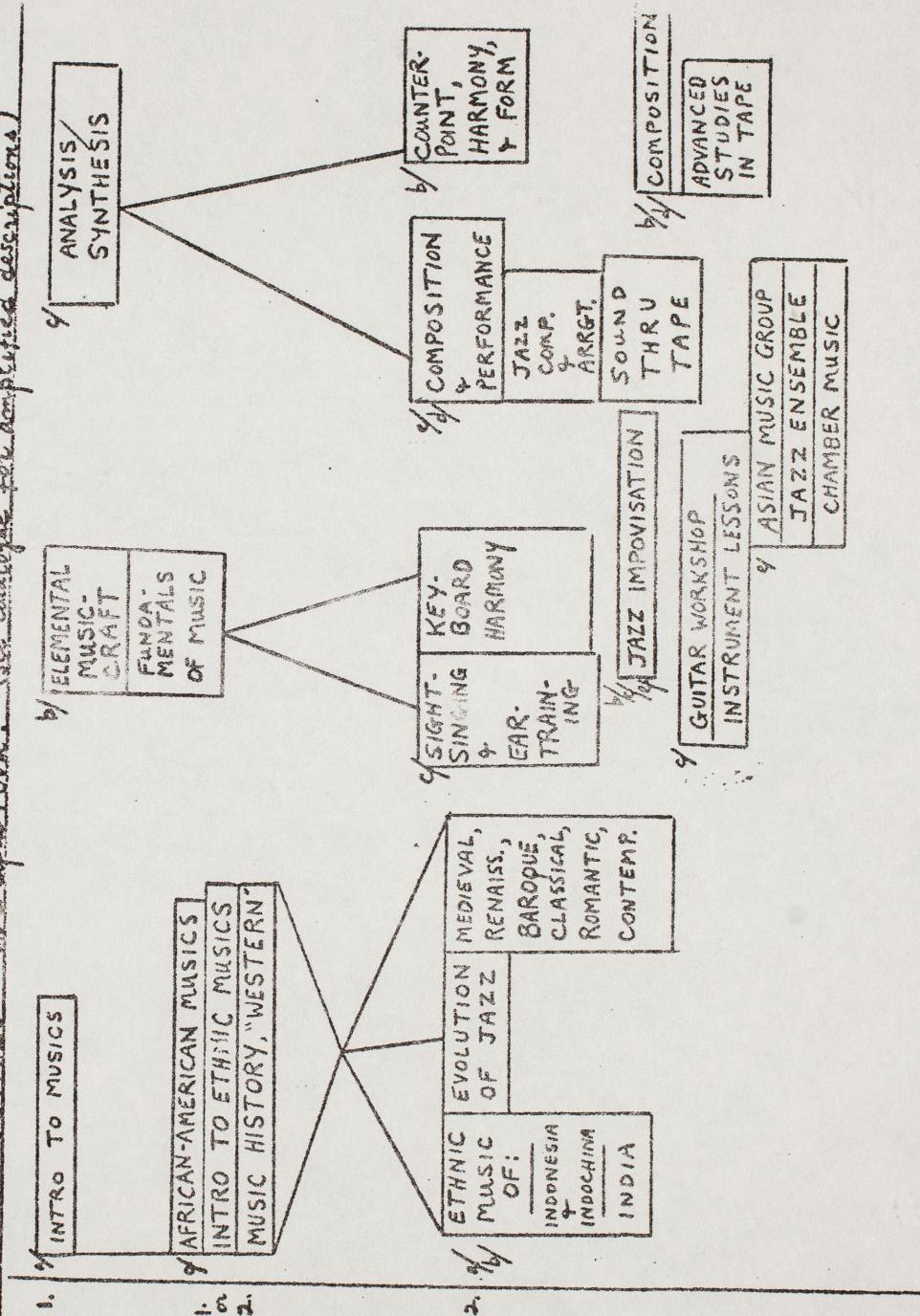
Include:

 - a/ Styles, acquaintance with and information about--of various civilizations; of historical epochs within them....this to progress to any desired degree of fineness.
 - b/ Intellectual perceptions, as manifested by analysis especially, and also through criticism and aesthetics.
 - c/ Practice of disciplines leading to skill-mastery.
 - d/ The building of a body of realized creative works.
 - e/ Performance-- in ensembles; opportunities for solo concerts.

① likely being often taken concurrently with #1.

* application to Livingston College.....see program details: next page chart.

PROGRAM DETAILS - in Graphic Form (see catalogue for amplified descriptions)



The purpose of keyboard, as I see it, is to acquaint the student with basic functional skills. The key here is the word functional. It is my feeling that music can no longer be reduced to a set of inflexible and dogmatic rules. Students must be encouraged to be creative and imaginative, and they should be assured that the musical knowledge they gain is indeed functional and practical and capable of being used in real musical situations.

While we all recognize the importance of learning about past musical practices, it is ludicrous that one's success or failure as a music student depends upon how well one masters musical practices that are two hundred years old.

The subject matter in keyboard harmony ranges from the very traditional aspects of harmony to the more practical aspects. Each aspect of harmony that we discuss is reinforced through creative writing and through improvisation. For example, if we are discussing the interval of the minor second, then we will improvise at the piano, using minor seconds over the entire keyboard. The intervals are used melodically and harmonically. I find this approach valuable because students are then able to view harmonic concepts not as abstract ideas, but as ideas which are applicable to the creation of music. To further reinforce the notion of harmonic concepts as applicable ideas, students are asked to compose short original pieces which will demonstrate the use of minor seconds as melody and harmony.

I find there is an added advantage in that the student's aural ability is greatly improved.

Keyboard Harmony 1975-76

A. Review of intervals and scales text pp. 23-94

B. Chords:

1. triads text pp. 96-120
2. seventh and ninth chords pp. 121-129
3. eleventh and thirteenth chords
4. polychords text pp. 100-107
5. pedal tone chords
6. altered chords (reading chord symbols)

Final Exam - first semester

C. Melodic improvisation and melody writing

1. intervals, scale fragments, leaps
2. sequences
3. non chordal tones
4. phrasing (using poetry as a model)

Keyboard Harmony

D. Harmonic progression

1. II-V-I progression
2. the shifting function of a single tone
3. secondary dominants
4. harmonic sequences
5. modulation text pp. 267-280
6. substitution chords
7. passing chords

E. Chord voicing

1. voicing altered chords
2. close and spread voicings
3. omitting root from bottom of chord
4. voice leading

F. Modes

1. writing original melodies
2. constructing chords
3. harmonic movement

G. Harmonizing melodies

1. harmonizing pentatonic melodies with a variety of chord types and progressions
2. using II-V-I to harmonize melodies
3. using substitution and passing chords
4. using the concept of the shifting function of a single tone to reharmonize melodies

H. Some modern compositional techniques

1. serial music
2. clusters
3. synthetic scales

Fi

Final Exam

Second Semester

The purpose of the ethnomusicology program is to expose students to the variety of sound materials of the world's music, and the variety of musical aesthetics and attitudes. To this end the course content includes anthropological materials as well as musicological and practical.

"Practical" materials include the direct experience of playing or singing music of specific areas being studied, often learning them by rote methods used in the particular country. This direct contact is aimed specifically at the many participating students who are or plan to be performing musicians. Besides exposing them to a method of learning which stresses ear and memory skills, it also proposes a more direct confrontation with the structure and aesthetic of the music being played than does the passive role of the listener.

Listening, however, is also considered an important part of the curriculum so that the student may understand what is heard well enough, and have the technical vocabulary, to explain in turn to another what is being heard.

Anthropological material- both religious and sociological- is included not just so as to explain the strangeness of an exotic practice, but also so that the student might in turn examine and be conscious of the cultural factors in his own musical experience and environment.

Teaching ethnic music is, I have found, teaching music. The same skills of analytic listening, self perfection in performance and responsivity in ensemble which are needed for classical western music are equally needed in every music of the world, and can be taught in the process of teaching any world music. The carryover of this learning from one music to another is definite. Through the world music approach it is believed that musicianship- not just exotic sounds- will be imparted, with the additional belief that the broad exposure to sound materials and concepts of musicianship and learning will keep the student from narrowing his concept of what music is to the exclusion of much of what the world has to offer.

SECTION II.

Consideration of those courses commonly called "Theory".
(by Philip Corner)

What is sometimes done elsewhere (which we could easily have done) is to assemble and teach separately several preexisting theoretical packages, each corresponding to one of the particular kinds of musical practice. This is certainly not the synthesis we are after.

It is more difficult to attempt the task of relating the common elements of stylistic diversity into a comprehensive whole. Potentially then, any of the elements so introduced should be able to serve as useful ingredients in creative projects. Is this not better than just hoping that a number of specialties would automatically offset each other's limitations? (We can picture a society which is composed of individuals who, though uniquely themselves, yet carry on communicative intercourse.....instead of, say, a collection of (at best) mutually tolerated enclaves.)

Guided by the above, it seems preferable to think of the whole as "Theory in Practice."

The justifications for treating theoretical matters in isolation are easily imagined---and as easily countered. For example: "efficiency of presentation." There is a truth there. Discussions are time-consuming; and from the point of view of information ingestion, diverting. A cut and dried approach can be programmed into teaching machines (mechanical or human) and thereby susceptible to a technological amplification capable of processing thousands of minds simultaneously. But is that all? Rules to be memorized, yes....unless one should be also interested in human interaction. Then one is concerned with fostering, with not destroying, the powers of originality. We observe that abstract procedures cannot be trusted to automatically transfer themselves to meaningful uses when left to chance. We take note of the many performers who are bored by theoretical speculations; we see those who, even when interested, are so often incapable of applying them to musical realization. Teachers of theory appear somewhat prone to confusing an older practice to be analyzed with an eternal truth to be dispensed. The emphasis on conformity rather than discovery, is a hidden agenda, easily programming students' attitudes for life. Or creating rebellion. Two camps are formed, one which is chronically hostile to innovation while the other rejects the past in toto. Even intelligent people are to be found who have turned against rationality as a value. These extreme productions of orthodoxy are surely not those intended, or desired.

This is the reason why, in all "head" classes, some time is reserved for the playing of music. Time well spent! The most scholastic harmonization,

the most abstract cantus contrapuntizing, may be in some way "rescued" by the simple expedient of being sung aloud. This turns the red Xs of correction into the perception of the effects of "error." This leads to the practice of specifically checking all textbook rules against actual musical practice. From this, extensions of those "rules" can be imagined, along with conditions of valid exception. The works of the masters are themselves searched for their "violations." (Even in history courses such an approach can give benefits: historical periods are given whole, with its "minor" figures as well; personal responses have their place, leading sometimes to "rediscoveries." By replacing lists of certified "masterpieces" even the "great masters" would be more properly valued and appreciated.

The "Education Plan" presented in the previous section has shown the first-year level as not restricting content to any one type of music. Rather, there is the place to set out a broad vision. We need not be impeded by the interesting philosophical questions concerning universals or meta-qualities. These may be enjoyably talked about, while having put into practice right away the practicing of those elements within our immediate grasp: scale-types other than the major-minor; meters other than 3/4 and 4/4; harmonic and contrapuntal organizations other than triads or dissonance-consonance. Intervals: all of them learned, not necessarily related to tonal centers. Chords: the whole repertoire of them, so richly augmented by jazz. And the non-triadic aggregates.

Improvisation, as a special mode of thought--its closeness to immediacy of feeling and instantaneous grasp of realities-- is in use as a standard procedure. As is too, of course, the virtues of calculated complexity and control characteristic of literate skills.

Some difficulties might just as well be confronted soon. There are certain problems arising from the pedagogical predilection for graded sequences, such as the familiar affliction called (by Richard Chrisman) "tonicization." Nor would we want to contribute to the spread of "consonance addiction" or "dissonance phobia." It is well known how the recognition of the modes of "Musica Antiqua" are spoiled, caused by overindulging the norms of "common practice." Everything else too seems a little strange. And modern music especially. That would seem to be giving us, under the guise of a method of instruction, a form of indoctrination procedure.

In the area of rhythm, the irregular and additive meters are to be introduced early. They are to be played directly on percussion instruments--a dim-of sound often neglected. One of the greatest limitations of our inherited

culture is the reduction of rhythmic interest to movement in a melodic line or chord sequence, for the most part. Cutting through this inhibition is a liberating experience, as well as a thoroughly enjoyable one.

Of course, systematized textbooks have a use, and are used as supplements.

In general, the work is linked to real purposes.

Thus, complex rhythms which may be generated spontaneously, are the basis for attempts at notation. Melodies are learned by ear, and must be sung; then they too are used for dictation. They are also tried on instruments, keyboard and "melodic." (Incidentally, in place of the usual method of restriction to a small number of hearings, with a few notes snatched each time, the method is preferred of having the song memorized by actual singing, before a pencil is lifted. This prevents an overdependence on print, with its consequent destruction of the memory. If an extra minute or so is incurred thereby, it is worth it. And not bad if they can be as well a bit carried away by the joy of singing together.

Even the very disciplined study of melodic intervals for quick recognition can be turned into a real experience. Long tones are chanted while purifying the intonation; a deep perception of the quality of those intervals, of the sounds themselves, adds a sense of sheer beauty to the "test" aspect.

Another method for developing the melodic sense is to have individuals take turns "soloing" while the group sustains a drone, in a prespecified mode. This can be done by voice, or with instruments.

Rhythms can be likewise introduced.

Analytical processes can add given forms, motives, and the like.

The ideas can derive from some of the music searched out and studied.

As before, both improvisation and composition have a place in this.

The idea of the "mantra" can be introduced here. Being a significant modern rediscovery, this has a special interest for us—yet it is an ancient dimension of the music making process where the powers of inducing ecstasy are touched. If we can hardly, in the present institution, fully enter into that realm, we can at the least introduce and "certify" its existence. It is also a fine lead to the study of variations.

The teacher too is joining in the performance quality of these learning experiences. Why not? It may be more rewarding than a simple job of passing on elementary information to beginners. An unusual rapport is fostered.

For this reason it was called "Element-al Music Craft." The "craft" is of course the skill, the power to do in which knowledge must be embodied. Furthermore, there is the recognition that it is not just about something "elementary", to be passed beyond as soon as possible, but rather of a continuous rootedness in "the elements", a value to even the most "developed" musicians.

An additional goal is the assimilation of a kind of "repertoire", of tunes and rounds and rhythmic patterns and chord sequences and ideas about making to sounds and listening to them, for the purpose of stimulating participation in others on appropriate occasions. This aspect of musicianship, the help given to "amateurs" and bringing performance more intimately into life, is just as important as the formal displaying of superior achievement to passive audiences.

These are the kinds of things, too, which are essentials in music education. Is any of us above teaching little children? We can all be freed a little from our instruments, our professional obligations, to bring music with our selves into the outdoors.

We may also see into simple forms, such as the round, into which the greatest composers did not disdain to infuse with profundities.

Another aspect, a neglected yet important one, is that of "noise", and its corollary "silence." These are of import, not only in new music, but in awareness of the world around us. Who, indeed, but the musicians should have the heightened sensitivity there, where the materials of our entire art were originally extracted? This sense of raw nature is necessary for an undistorted perception of our own artistic endeavours, just as having an integral relation to the present serves the proper appreciation of the past. Part of this is the study of acoustics. But another part is the purity of hearing which joins us to the vituoso listeners, like Thoreau, whom another great musician, Ives, was not ashamed to call "a great musician."

The sounds of the world may be imitated, at first verbally. Then their translation to instruments, by way of transcription, verbal and graphically shaped description. Here are good experiences for, say, working with children. They also prepare the awarenesses necessary for making electronic music and other advanced forms of contemporary music.

Such things are hardly as "far out" as they might seem to some. Nor are

they merely "fads." (A few traditionalists would write off the entire 20th Century!) Two effective replies:

By a curious progression, our advancement has come back around to a number of primevial truths. (Let us ignore those who would still, priding themselves on their own "civilization", disdainfully say instead "primitive." A more enlightened view recognizes us as being now in a "global village." In this re-discovery of our roots, at (so to speak) a higher octave, we might just have the seeds for a solution or two of the problems caused by excessive materialism. A "spiritual ecology" may be part of what will be urgently needed in an increasingly pluralistic world society.

Secondly, a clinging to the "test of time" criterion in terms of evaluations, puts us the position of being permanently behind the times. Maintaining the best of the past is surely not incompatible with being as well on the cutting edge of history. Isn't it the prestigious institution of learning which should take this position? Otherwise we end up viewing even our current existence backwards, from a hypothetical position in the future. No wonder then that there arises the opposite attitude, the compulsively limited "here & now-ness" of pop-cult. It is the intellectual elitest position itself which shares the blame for causing that. Both of these incomplete viewpoints, these mutually exclusive narrowmindednesses, can be reconciled: acceptance of the present as the center of reality, that from which we reach out towards other dimensions of time, is the agent of compatibility.

Thus, it stands to reason, that short-lived or not as a movement may turn out to be, higher education as an interest in it. How can we accept a relationship with the world which just waits around to pick up the pieces?

Fortunately, we need not be forced into any such choice. While on the one hand the noises and theories and electronics and such commensurate with what Peter Yates has called "the present era of sound", much of the older "harmonic" principles and practices are alive and well with us. All the more reason then, for the inclusion of jazz and folk styles in which these very heritages find their current place. And, just as Bach taught his sons in an exactly contemporary usage, our training ought to be no less "up to date." Still, since the "avant-garde" is not all that is with us, to present only total sound-space and indeterminacy and serialism would be almost as narrow an imposition as the methods of standard theory. Therefore we include the tuning and tonality and scales and chords and rhythms, in many guises. Thus the future is prepared for by an assimilated multiplicity which begins to see through to a revelation of unity.

Improvisation, a crucial ingredient: How curious that this should be at issue. How strange it has not been always acceptable, as a matter of course. For it is this, more than anything else perhaps, which divides us into incompatible groups. Those who play by ear and those who read. Jazz has probably been the biggest factor in showing the possibilities of bringing together these two worlds. Now musicians all over the world are making use of notational procedures, but to supplement--not to supplant-- the oral mode. This, more than those compositions based on borrowed "exotic" ideas, is what is permitting musicians from different backgrounds to play with each other. Those who have done this know how good it is. (As do those who cannot, who so often yearn after this ability with envy.) After all, there is more a question of inhibition than of knowledge, per se. A block in the path of action, such liberation of our thought brings us to a new kind of trust in our powers. The items of calculation are instantaneously grasped in their essentials; on the spur of the moment the analytic faculty has been capable of deriving, from a whole well apprehended, many newly manifesting variations. And what is this but a final proof of understanding?

Need we remind that in the European tradition too, most of what we play has come from periods when improvising was current, and prized. Some of that music remains incomplete if not supplemented by the performer today. The reliance on prepared editorial completions necessarily removes us one more step from its original intention. This means that much, some suggest that it was the best part, of what we ourselves cherish as our own is, in some deep sense, unknown to us. It was not 250 years ago that Couperin asserted that his written preludes (from "L'Art de toucher le Clavecin") were only for "those who have recourse to these non-improvised" ones. We need not completely neglect this aspect of the thing.

None of this, moreover, deals with another virtue of the improvisatory state, whose immediacy serves as a prod to the imagination. Even when the final results are to be notated, this contact with the "materia musicae" helps keep the mind from too extreme an indulgence in abstractions. In addition, such intimacy with those degrees of expressivity and complexity which remain unamenable to mensuration, can only improve the performance of the classics. Through "indeterminacy" a novel form of that old openness has reentered our world, and is now well-known to avant-garde musicians. Jazz musicians, of course, and those in Folk and Popular fields, and many cultures around the world, have never been called upon to renounce that at all.

(I am thinking of that scene from the film "Alice's Restaurant" where, in

a university music class, the teacher is enraged by a student's improvisation in American folk-style. The image of what our institutions should never be.)

Consider the organisation of the program as a kind of fan, spreading outward from the groundwork built from the first day of the first year. Trying to clarify our understanding of "music", leads to the sight of a vast field of possibilities. From a conceptual point of view, a circle of potential is being filled in. Though the dimensions must remain forever infinite, some idea of the perimeter should make us a little less satisfied with private sectors within. Why not, rather than fear of the unfamiliar, an attitude which would look towards the filling in of "white areas (terra incognita)" with the same avidity formerly used in clinging to "our treasured heritage?" Perhaps the inspiration to make a contribution need no longer fight its way out from entrenched restrictions.

Once the experiences have been introduced, which are to be the base of areas for future specialization, the student has the responsibility of choosing, and following upon, the path of his/her major interest. It follows that that detailed work of imitation which has its source in the past of one culture is to be left for a later stage, and taken as electives. This, of course, includes Counterpoint, "Common Practice" Harmony, and other studies specifically from the European "Art" tradition. Comparable courses exist for the paths, say, of "Jazz" and "Ethnic Studies", and resources should enable the scope to be enlarged.

(GRADING)

Along with the other arts, music is in a unique position to make a contribution to the development of alternative standards of judgement, appropriate to active purposes and non-verbal means. Our analogies might be of help to other disciplines. It is so natural to us to put into practice the knowledges we impart. There is little that can not be demonstrated about a person's accomplishment through the performance of real work. Even that information conveyed by means of words on paper, say for example historical facts, can be put into the context of, rather than a "test", a finished paper directed to areas of interest. Since the factual content required will show up anyway in the project, attention may be directed towards the meaningful questions. Short answers, in particular, have limited use.

One of our ways of dealing with this is a form for the measuring of skills. Instead of mixing up everything into a grade average, each specific skill may be listed. A scale running from "Perfect" to "Awful", next to them, permits a mark to be put in the appropriate position. This easily visible indication of each separate subject's status, can be moved as improvement takes place. This

makes it ideal as a self-help guide. Though this could, in addition, easily be quantified, it will be noticed that it is hardly necessary to do so. The class is more responsive thereby, the needs of each individual being served and the class freed to move at different simultaneous rates of speed.

Most of the skills are actually tested in situations approaching live music-making, and from the pleasure often evident one would be surprised on finding out that an "exam" is in progress.

It is important to let students have the clearest idea, right at the beginning, of what they are after. In classes devoted more to concepts, this is done by giving out the list of terms to be explored. Though they will be, in turn, taken up in class discussion, students have an entire year to deepen their understanding; they start with standard references and continue on their own to explore the available texts. With each "word", there are associated projects, some analytical and some creative. The exhortation is to go voluntarily further than minimum requirements, and to treat all work as having more than a mere technical correctness. There is no reason not to suppose that each piece of work may not turn out to be an accomplishment of beauty and insight.

The students are asked to think about the state of the art and their role in it; this is to clarify professional intentions and to guide activities towards the realization of them.

It seems inconceivable to me that students treated this way could, or would, steal exams, or cram for them, or work for grades alone.

It is in the nature of the intellectual faculties that their capacity for devouring information is far superior to the organism's ability to assimilate it. There is a temptation to indulge this, which, if encouraged, tends to produce "fact-containers" of enormous content who are yet alienated from either having any functioning ability, or responsiveness which feels meaningful or satisfying. The dangerous seduction in education is of going ahead as fast as possible in the "head" area, at the expense of the rest. In music, this means both the ear and the understanding--and the sensitivity. We do not wish to perpetuate the practice of turning out students who, although capable of correctness in written exercises are not able to hear them, nor play them, nor apply them. (Careers as critics and professors have been built on such imbalance, though) It would seem that society at large has similar problems. Our plan and our hope is to be a positive force countering such tendencies.

Some fruits may be expected at graduation. Not only course credits but the beginnings of usefulness. A public performance puts into practice the kind of work which will continue in future careers.

LIVINGSTON MUSIC DEPARTMENT

Martha Curti

SIGHT SINGING AND EAR TRAINING

In the second year, a separate course in Sight Singing and Ear Training is required for music majors. It is simply not possible to be a music major at Livingston, no matter how verbally intelligent one is, if one cannot use one's voice, play rhythms, and take melodic dictation. The methods of teaching dictation are more varied than those of the first year, adding to the existing procedures (see Section Two) more traditional approaches. About half the time is spent on textbooks such as Hindemith's Elementary Training for Musicians and Fish and Lloyd's Fundamentals of Sight Singing and Ear Training. To go beyond the limitations of this traditional subject matter, a variety of approaches is used. Students are asked to bring in examples of jazz and pop music illustrating various topics in the textbooks, sing them, and use them as melodic dictation. They are asked to learn ethnic tunes by ear from recordings, to be taught by ear to the class and notated. Several assignments involve transcribing music of a wide variety of cultures. Listening to and performing African rhythms, singing 12-tone rows taken from the literature, improvising and singing monophonic and part music from many periods of Western Music History, also form part of the work of the course.

Section III. Application of general principles to other areas

MUSIC HISTORY AND LITERATURE (Western Music):

The teaching of European music history in the context of world music, with as much live music-making as possible in the class, is not only expedient for a college such as Livingston, a large number of whose students are from a minority or working-class background, but it is valid for any college, as such an approach helps to minimize the danger of the distortion that exclusive attention to the music of a specific period and culture invites. For example, if we study any European music of the past on the basis of written documentation alone, ignoring popular music and supposing that the proportion of sacred to secular music, or of popular to art music, is accurately reflected by the written evidence, we have not only a pale and lifeless impression, but a very inaccurate one. The further back we go in history, the more must speculation, informed by sound scholarship, enter into performance practice. The risk must be taken, however. Students who have become used to improvisation in theory classes can improvise note against note counterpoint, or long melismatic lines, against a Gregorian chant, and gain a different and probably more "real" experience of medieval organum than they could by singing the examples in historical anthologies, and most certainly than they could by listening to recordings, although both of these activities also take place. Medieval monophonic music and present-day avant-garde music are especially amenable for class performances, but if one looks, one can find opportunities for live music in every period, especially if one is willing to enter the popular sphere.

An objective treatment of European music history must stress the limitations of notation in all periods and must stress the relatively limited sound material used in comparison to that which is available and used in other cultures. To treat polyphony as purely Western invention or to treat chant as having appeared suddenly highly sophisticated form in Jewish and Byzantine cultures, without placing polyphony and chant in a broader world context, is grossly misleading. In many other ways, parallels and analogies and the similarity in function between figured bass and the chord symbols of pop music and jazz or the correspondences between instruments. The unique aspects of Western music should be placed in a world context. Many assumptions that had been considered universal, given facts, such as that a piece of music always has a beginning, a climatic point, and an end; the idea of music as a commodity on the market; of the separation of the processes of composing, performing, and listening; are seen to be only some of the possible ways of doing things.

Ideally, a teacher using this approach should have studied music of other cultures. But the will to approach European music from a world framework, and personal contact with people from other cultures and traditions or familiar with them, can make a great deal of difference.

Ted Dunbar

My purpose in Guitar Workshop is to teach music as it relates to the guitar. I interview each student as to his background and what he most wants to know. I advise the students to open up and see objectively what I think they should know in addition to what they want to know.

I explain the problem of the different levels of guitarist-musicians. The scope of the instrument is so vast that they can't afford laziness with it. I try to get as much information from each student as possible; my program deals with a one-to-one relationship between student and teacher as well as a collective group-teaching exchange.

My program is divided into periods. The music-reading period is the longest because this is the weakest area for most guitar students. I've also found that it helps to develop concentration to a musical team as one member. Working together for a single purpose helps dealing with ego problems. I try hard to get students to understand what music is away from the instrument by making him listen to the very best music from every phase of life. Then I encourage him to master the instrument and show him how. I also explain that a musician is a human being who plays another man's music with the same care and thought that he would give to his own.

My three-hour period is divided into five categories:

- | | |
|------------|------------------|
| 1. Reading | 4. Fingerboard |
| 2. Scales | 5. Improvisation |
| 3. Chords | |

Each of these areas is thoroughly covered and all are inter-related to each other and to music as a whole. The student is tested as to where he stands within each area and is encouraged to go forward from that point.

The student is constantly urged to study with a private teacher, and also to play and listen to music under every circumstance without prejudice or partiality. Students who study without teachers are warned about the dangers involved, such as not knowing when they have perfected a lesson, or what to look for in perfecting technique, balance, sound, etc. Students are told to break up into teacher-student groups where one student listens to the other and evaluates his work based on what can be done, what is being done and what is not being done - if they are working without a private teacher.

Complete bibliographies of each chords, scales and fingerboard are given to each student, as well as improvisation and harmony texts.

SCALES:

1. Student is taught what a scale is theoretically, chord-scale relationship.
2. Students are taught what a scale builds in technique. (Sound, speed, hand posture, fingerboard, knowledge reading).
3. Students are taught that a scale helps improvisation by connecting them all over the instrument and playing creative patterns from them using them as raw materials.
4. Students are shown how scales relate to reading the printed note by serving as "road maps" on the fingerboard being able to hear and visualize all the notes as to where they are on the staff and the fingerboard as well as to its pre-hears pitch.

FINGERBOARD:

Students obtain fingerboard color chart and we study this chart committing it totally to memory and noticing everything about it. The students locate all the C's and other notes all over fingerboard build scales and chords between them. I also use the fingerboard workbook.

CHORDS: Six Ways of Learning Chords

1. Memory (Storage)
2. Substitution (Replacement)
3. Experimentation (Constantly searching)
4. Visible Recognition
5. Movability
6. Association

Each one is explained and exemplified. Theory taught through practice.

READING:

Students are explained the reading process. What happens mentally before you touch the guitar, also to thoroughly understand a measure of music, then decide the best place to play it on the instrument. Students are encouraged to study and master sight-singing (Solfeggio) and keyboard harmony. We use fifteen (15) guitar arrangements for five (5) to seven (7) guitar and rhythm sections by Berklee School of Music. These arrangements are graded grades 1-12. We also utilize other types of reading materials from the different areas of music as well as my own arrangements.

IMPROVISATION:

We are using "Body and Soul" as a teaching device. Student is told to learn melody and chords to any tune. Student is taught five (5) levels of hearing in a jazz performance:

1. Melody
2. Lyric
3. Rhythm
4. Harmony
5. Improvisation

Scales, Arpeggios, Chord-Scale relationships

I assist my students through independent counseling, inspirational discussions. I have taken my classes to a recording date. I have formed a vocational-job chart of opportunities for getting jobs in areas where I have had experience and known people, so students who are qualified can get jobs in recording, club-work, concerts, teaching (at certain levels) and Broadway plays, etc. I have given my students information about guitar purchasing and repair and books, etc. My students are encouraged to listen to all good music from all areas of life, unprejudicially. They are encouraged to be neat, punctual and have the right attitude of openness to do a job positively. I also tell them no matter what they are studying, it is a form of discipline development and the human characteristics have to be developed to A-1 conditioning. I happen to believe that you as a person and what you do, and the world is your religion. My classes are divided into lecture, listening and performance. Performance being the greater part for teamwork. All phrases of classwork are connected. I give my students information about good guitar magazines available through subscription. I have them come to concerts and club dates when possible. I established scholarships for my most deserving guitar students from the National String Company here in New Brunswick, New Jersey.

The independent study program is used as an adjunct study usually on the students' principal instrument or additional instruments. I encourage them to emphasize areas not covered by campus classes during their independent study program. Also I try to connect the independent study project with my class teaching to form an understandable whole so the student can add to what he has knowledgewise. I try to scrutiznize the students and teachers of

independent study in order to eliminate situations where students only "want credit". I talk with their instructor and explain our program on campus and inquire about the independent study teacher's program and goals. (There are instances where the independent study instructors are on campus or are off campus). At the end of the semester, I phone the independent study instructor to ascertain whether the student deserves credit or not. During the semester the student and I have verbal contact to ascertain how he or she is doing.

GUITAR WORKSHOP 1975-76

Prof. Ted Dunbar

Guitar Workshop is divided into 2/3's reading musical arrangements by myself and Williams Levitt (we use 20 graded arrangements on different graded levels). The students get the opportunity to learn how to develop team work of playing together to develop courtesy, respect and mutual help for one another as well as learn from one another.

I have printed a special booklet for this workshop where the student takes a popular song and develop all their chords and scales on the finger-board as well as play all the chords in one position and the melody. This booklet will be further developed through special assignments for each student to realize their own personal problems with the instruments. This will involve their minds (theory) and practicalness.

The other segment of the class deals with listening to guitar recordings from the classical, Jazz, Folk, Rock Blues, Flamenco, etc. and other areas and discussing each record.

A performance is being planned for this spring semester in the Lucy Stone Auditorium in which the students will perform the special arrangements that they are rehearsing.

The special booklet that I have published for this class is completely analyzed on the guitar using all the chords and scales at each position and playing the same melody all over the neck and in different keys, this booklet shows them a complete, thorough method as to what they can do with any tune and learn the guitar at the same time in the process. The students increase their musical language through learning continually more chords and their substitutes as well as color scales (♭ - +, 0, 7th) and how to apply them.

JAZZ IMPROVISATION I 1975-76

Prof. Ted Dunbar

I have arranged this class around the three-fold concept of doing, feeling and theory. Each student is given at least twenty tunes (chords and melody) to learn in which are included a bossa nova, blues, a ballad, modal tune, waltz, popular song, rock blues, West Indian tune, I've Got Rhythm tune as well as an Ellington, Horace Silver, Monk, Mingus tunes. Variety is the idea so that the student can be aware of this factor.

I am trying a new process of letting each student come to class and arrange a program around the above tunes and use the class as a band of their own, in this way they learn how to call a program of tunes and see their own mistakes.

This semester the students have to learn how to identify all the chord types by ear (Major, Minor, Dominant, Diminish and augmented).

The students get to play all the above tunes and improvise on each as though they were playing for an audience. They are coached every bit of the way to point out helpful factors.

Each student records on his cassette tape recorder the Jazz tunes which I give them music for so that they may take them home to listen to and as a guide.

A certain groundwork of learning scales, chord-scale relationships, arpeggios, voicings and theory of voicings was layed the first semester.

JAZZ IMPROVISATION III 1975-76

(Prof. Ted Dunbar)

Jazz Improvisation III is outlined according to my new method of theory, practice and feeling.

Two thirds of the class time is devoted to actually playing and improvising on the jazz repertoire. The other one-third class time is devoted to listening to the same tunes on records (that we give out sheet music to). So the students bring their cassette tape recorders and make their own personal tapes for study of phrasing and instrumental function. The theory studied comes from the actual tune forms themselves.

The students of this course actually use the Lydian Concept of Tonal Organization by George Russell as well as II-V's records and books by Jamey Aebersold and David Baker. Students are instructed to:

1. Memorize melody and chords to a tune.
2. Determine whether a tune is horizontal or vertical or a combination and the problem to be solved.
3. Apply the 5 levels of hearing concept to each tune
 - A. Melody level
 - B. Harmony "
 - C. Rhythm "
 - D. Lyric "
 - E. Improvisational level
4. Connect scales in a tune from chord to chord.
5. Apply my Tonal Convergence System where technically feasible.
6. Call tunes in right tempo and key order, with variety in mind.

The students are taught to coordinate three centers in themselves: mind, feeling and doing and to see how they help each other and must be developed evenly with no over development of either center. They are taught to work for themselves, for new students and for the school, applying three lines of work.

I plan to take students to New York City to participate in two workshops with the finest Jazz musicians-instructors at Jazzmobile and Jazz Interaction - Two separate functioning workshops.

My students are being exposed to the complete repertoire of Broadway show tunes, all the jazz tunes, Rock and Blues to give them a complete practical background to make any type job which jazz musicians do (TV, Recording, movies, etc.). Students are encouraged to write their own tunes.

I try to instill in them the highest level of musicianship (punctuality, neatness, etc.).

This spring semester we plan to cover the blues and its evolution and record from Robert Johnson, T-Bone Walker, Bessie Smith to Louis Armstrong, Lester Young, John Coltrane, Ray Charles, Duke Ellington, Wes Montgomery, Horace Silver, Miles Davis, Ornette Coleman and George Russell. This will give the students a versatile study of how the blues form has grown in so many different ways.

ELECTRONIC MUSIC

Prof. Daniel Goode

Wherever we are, what we hear is mostly noise. When we ignore it, it disturbs us. When we listen to it, we find it fascinating. The sound of a truck at fifty miles per hour. Static between the stations. Rain. We want to capture and control these sounds, to use them not as sound effects but as musical instruments. Every film studio has a library of "sound effects" recorded on film...it is now possible to control...any one of these sounds and give to it rhythms within or beyond the reach of imagination. Given four film phonographs, we can compose and perform a quartet for explosive motor, wind, heartbeat, and landslide.

- John Cage, "The Future of Music: Credo", 1937

I recently made a score which exists only on a tape and in a written time structure. The tape has sound models which are listened for by the performers. The time structure indicates the musical relationships to the tape. The performers listen to the tape and follow the instructions on the score: "do something similar," "do the opposite," "do something neutral". And I scored a couple of sounds. There is the aural tradition and literal tradition. I never want to give either of them, though I think we have neglected the aural for a long time now.

- Karlheinz Stockhausen,
1967

The ontological goal pursued by the work of art is always to give the receptor "a little too much" information, a little too much originality; this "too much" is what is called the perceptual richness of the work of art, but the excess must be moderate.

- Information Theory and Esthetic Perception, p. 162, Abraham Moles, 1958/ U.S.: 1968

Rock has made everything possible because it is capable of and willing to assimilate everything....because a fantastic number of kids are willing to listen....We mention lots of experimental composers on our album covers; and that could do more to get kids into the heavy stuff than all the preaching in the world. That's a hell of a lot more for culture than Babe Ruth ever offered!

- Frank Zappa

Another important result of the "recording revolution"...is that stylistic distinctions have begun to break down....it's not uncommon for an individual to mix records of Varese, Brahms, Palestrina, Ravi Shankar, and the Beatles in the pile on his phonograph changer....I would suggest... a sweeping reclassification of musical experience in terms of function... and performance mode ("live" and "recorded") instead of the geographical-historical criteria that other generations have applied. The formula for discrimination has changed.

- p. 170 of -

Many people believe that there is an "electronic style" of music and that his style is duplicated invariable from piece to piece. Having convinced themselves of this, they also assume the existence of a special breed of composers who concern themselves exclusively with electronics and whose works all sound the same. Various catch-phrases are heard in attempts to describe whatever this allegedly singular quality evokes - "science fiction", "freakishness", "dehumanization" - all of them indicating that the music is, in one way or another, puzzling.... It is really unfortunate that the most recent music of the 20th Century, offering the greatest variety - conic, stylistic, aesthetic - in history, has become associated in the public mind with a single image.

- Elliott Schwartz, Electronic Music,
Publishers, 1973, p.3

WHAT IS ELECTRONIC MUSIC - - IN A PLURALISTIC UNIVERSITY CULTURE
by Daniel Goode

It has become increasingly clear during the last twenty years in which it has become part of our culture, that electronic music no longer has a meaning any easier to define than that of music itself. Listing them roughly in the order of less to more obvious are descriptions that might become part of the definition of electronic music:

- 1) Commercial recordings of the "classics" that splice many "takes" from several recording sessions into the one released recording.
- 2) Live rock concert with generous amplification of each instrument (including synthesizers) and a technician or musician who mixes and produces the resultant sound on the spot. (Occasionally true of some avant-garde concerts too).
- 3) Studio processed music of Jazz, Rock, Avant-garde that could not have sounded that way if heard live. E.G., studio mixes of African music and Jazz; Rock that has been influenced by Cage or Stockhausen; whale songs recorded underwater and played back at half-speed on recording.
- 4) Concerts of musicians using solely studio electronic equipment to produce and control an overall aural environment.
- 5) Concert of tapes pre-recorded that is to be listened to as you would music at home (from loudspeakers), but in some formal situation such as concert hall, museum, public space, outdoors, etc.
- 6) Studies (with proper laboratory sound equipment of natural sounds such as birds, crickets, dolphins, human voice; use of this information and sounds in musical contexts.
- 7) Music generated by computers, or structured by computer, or studio sound equipment driven by computer, or similar techniques (e.g. punching player-player rolls).

8) Music that "sounds strange" or like that heard on science fiction shows or "2001" (minus Struass but including Ligeti's choral and orchestral music borrowed for the occasion).

9) Music associated with one or another radio station or university electronic music studio. E.G., Cologne radio (Stockhausen), Paris radio diffusion (Schaeffer, Henry), Princeton University (Babbitt, Randall), University of California-San Diego (Oliveros, Gaburo, et al).

Considering the complex cultural and educational milieu of Livingston College within Rutgers University, I would think it inadvisable to limit the meaning or use of electronic music in any way. All that is necessary is that whether it be educational, creative, or research work, it have its share of whatever facilities, material, intellectual and spiritual, that constitutes electronic music on these campuses. What follows in this report are various documents concerning electronic music curriculum, and the Electronic Music Studio at Livingston College.

LIVINGSTON COLLEGE ELECTRONIC MUSIC STUDIO

The Livingston College Electronic Music Studio had its modest beginnings, January 1971, in an alcove within a "warehouse"-like structure on Camp Kilmer with 1 professional quality tape recorder, a few portable tape recorders, editing decks, 2 Voice of the Theater speakers, 2 microphones, stands and no technician. We are now located in a large room across from the auditorium (LSH), our equipment, worth about \$20,000 includes: 2 four-track tape recorders (1/4"), 2 quarter-track, 1 half track recorders, 8 microphones, 4 "Voice of the Theater speakers", 10 smaller speakers, an ARP synthesizer, complete 4-channel mixing equipment, a complete video tape unit and most important, a full-time technician and a budget for maintenance. We are able to accommodate studio work at an elementary and advanced level simultaneously within the same room.

The aims of the Studio are essentially the same as in 1971:

- 1) Support of undergraduate education.
- 2) Training in techniques of tape and electronic music for the composer and those in related fields; research and creative work.
- 3) Facilities for research and creative work by graduate students and faculty of Rutgers University.

Most of these functions are already occurring. In addition, the Studio has provided its services for numerous student and faculty concerts, many using electronic music, video tape; also for recording sessions, and projects in film, mixed media, documentation, theater.

At present we offer one introductory course, Sound Through Tape as part of the Livingston Music Department curriculum. Advanced work is taken through Independent Studies.

The Studio is now in operation 9-5 p.m., Monday-Friday, evenings 6-10, Mon.-Thursday: Saturday, 10-4P.M.

Daniel Goode, Director
Assistant Professor of Music

SOUND THROUGH TAPE: an introduction to electronic music
instructor: Daniel Goode

- I. Introduction to basic equipment and processes: The audio/electronic chain: Source - Microphone - Tape Recorder - Pre-amplifier - Amplifier - Speakers - Room acoustics - Ear

Making a recording: the class makes a "source tape"

Hand out: "Outline and Checklist" of audio equipment. Explanation of items in a "typical system".

Assignments: (a) compare and contrast items on outline with those in another typical system.

(b) compare items in our studio set-up.

- II. Listening to musique concrete examples: Xenakis, Luening, Schaeffer. Graphic score of an example. Deciding on parameters of score. Assignments: graphing of another piece. Examining graphs of other composers.
- III. Making a musique concrete piece from the source tape. Processes: copying ("dubbing") and splicing. Assignment: a 2-3 minute composition using these two processes only: graph the composition before, revise graph after if necessary; hand in tape and both graphic scores.
- IV. Quality in tape recording and processing (a very short lecture) microphone and tape quality levels, tape speed number of generations background noise comparisons in splicing Examples of collage compositions: Cage, "Fontana Mix", Gaburo, "Fat Millie's Lament".
- Assignment: re-copy a taped fragment until it has gone completely from signal to noise; chart the intelligibility of words, of pitches, of timbres; how many generations?
- V. The portable tape recorder (reel-to-reel) as a compositional and performance instrument. An Environment Piece - perception: ear and microphone. Assignment: a 15 minute listening of a given space; write up the results according to instructions; simultaneously tape the environment. Compare. Score excerpts of each.
- Class: improvisation with several taped environments as individual instruments, i.e., a "trio" or "quartet" of tape recorders. Score this, (class or individual project).

- VI. Acoustic studies.

- (a) Speed changes and overtone perception (recorded vocal sounds)
(b) Resonance areas, harmonic series, transients, noise bands.

Assignments: selections from various reference works: Culver, Backus, Erickson (timbre lectures and readings), Benade, Bell Labs, etc.
Class or individual projects: field recordings to demonstrate noise bands, transients, areas of resonance in natural sounds.
(c) Bird songs.

VII. More tape techniques
Loops, echo, feedback, variable speed
Assignment: make a loop composition, mixing 2 loops of the same material.

VIII. Introduction to Electronic Music Systems (the "synthesizer" a misnomer).
The "classical system" compared to voltage control; computer sound.
Examples of each: Babbitt (or Davidovsky), Oliveros, Dodge.
First lesson on the ARP: in or out; the patching matrix.

IX. The oscillator: The pulse-to-pitch phenomenon
Wave-form and timbre
Tuning and beats

Introduction to amplitude and frequency modulation (theoretical)
Assignments (a) introductory pages of the ARP manual
(b) oscillator exercises (ARP)

X. Demonstration of amplitude and frequency modulation.
The voltage-controlled amplifier (VCA)
The voltage-controlled filter
Assignment: modulation exercises

XI. Uses of the keyboard:
The basic patch
2 and 3 voices (not possible until 2 more VCA's are acquired - why?).
A "double-modulation" patch demonstrated.
Assignment: (a) keyboard exercises
(b) tracing the circuit in the double-modulation patch.

XII. The sequencer: two basic uses:
Automatic triggering of events
Generating complex wave-forms
Assignments: (a) demonstrate the two uses of sequencer
(b) make a "real time" composition with the double-modulation patch; make score, turn in tape and score.

XIII. The sample-hold module:
Planning a longer composition on the basis of everything known thus far.
Assignments: (a) demonstrate one use of the sample-hold module
(b) outline for the final composition; some trial runs.

XIV. Planning of a concert using tape:
Choice of space: acoustics, usual function of the space, traffic.
Contexts: relation of audio and visual (e.g.) - aesthetic information.
Discussion of "trial runs", plans for concert of student works.

XV. Dress rehearsal of concert:
Outline of final exam: Part I - theoretical (written)
Part II - practical (individual demonstrations).

BIBLIOGRAPHY: a comprehensive annotated bibliography on electronic music and related fields is found on pps. 145-153 of Electronic Music by Allen Strange (wm. C. Brown Co.), on reserve. This is highly recommended and much of the material was requested from the library last semester, some is already there. The book itself, unfortunately, cannot be as highly recommended.