CONCLUSION

From the preceding discussions, the WSP's activities can be summarized as follows. First, the analysis of the WSP's works in Chapter Three have provided a more specific idea of how the Project's activities evolved throughout the different periods discussed in Chapter Two. For example, the "preparation period" from 1969 to 1971, which is characterized by Schafer working alone or with the students taking his courses at SFU, was demonstrated by the first two works, "A Social Survey on Noise - Vancouver 1969" (1969) and The Book of Noise (1970). Okeanos (1971) can be seen an example of the Project's activities during the "transition period" from 1971 to 1972. A Survey of Community Noise By-Laws in Canada (1972) (1972) is the earliest example from the "full-implementation period" which spans from 1972 to 1975. Other typical works from this period are "Cross-Canada Soundscape Tour" (1973), The Vancouver Soundscape (1974), and Soundscape of Canada (1974).

Second, we have also seen how the research plan outlined in Chapter One, which the Project divided into three phases in its grant proposals, was implemented after funding became available in the practical starting year, 1972. The first two phases, that is, on the local and national levels, were carried out almost simultaneously during the years 1972 to

1974. The last phase, on the international level, was carried out at a later stage of the Project's life, that is, from 1975 to 1977. On the other hand, as can be seen in the cases of The Music of the Environment (1973) and Handbook for Acoustic Ecology (1978), some of the works are beyond the schema of these three phases.

Third, the works dealt with in Chapter Three have also shown how the Project applied the four strategies (conceptual, educational, political and social) discussed in the first chapter. The policical strategy is characteristic of the earlier stage of the Project's acitivities. This is exemplified by "A Social Survey on Noise - Vancouver 1969" and A Survey of Community Noise By-Laws in Canada (1972), where the Project's primary concern is influencing political bodies. Compared to these earlier works, the political strategy became less significant in the later periods of the Project's activities.

The Book of Noise (1970) is the example in which the Project applies the educational strategy most extensively. In this case, the Project's primary focus is to educate the public about noise by increasing awareness of the dangers of noise and by providing more information about the issue. Compared to the political strategy, this strategy was used more continuously throughout the life of the Project, even though in some of the later works the educational concern

is not primary.

The social strategy is the one which was most continuously pursued during the later stages of the Project's activities. For example, as we have seen, the social strategy is the one which is used most extensively in works such as The Vancouver Soundscape (1974) and Five Village Soundscapes (1977). Both of these works attempt to develop the new field of acoustic ecology. When these two works are compared, the Project's practice of acoustic ecology in the latter work is much more developed than in the former.

Unlike the other strategies, the conceptual strategy cannot be easily separated from the others or pinpointed in any one work of the WSP. The conceptual strategy forms the base for all the Project's activities, and in fact each of the preceding strategies is derived from the concept of "soundscape". This point has been discussed previously, and can be seen in the Venn diagram on page 34 of the first chapter.

How, then, did the Project try to expand the concept of "music" into the larger concept of acoustic environment? It was done using the conceptual strategy, that is, by proposing a new concept of "soundscape". "Soundscape" is defined as "a macrocosmic musical composition", or "the

new orchestra: the sonic universe".[1] This might produce a misleading impression that the historical, narrow concept of "music" was expanded directly into the broader concept of "acoustic environment". However, what we should not overlook here is the existence of "noise". That is, what made Schafer propose the concept of "soundscape" was, first, his becoming aware of the problems caused by noise, and then realizing the limitation of the historical concept of "music", which does not have any means to deal with those problems.

Similarly, the activities of the WSP started with a concern about the narrow issue of noise pollution, which was then developed so as to deal with the more general acoustic environment which includes "noise" and "music", that is, "soundscape". In fact, the concerns of the Project's earlier works such as "A Social Survey on Noise - Vancouver 1969"(1969), The Book of Noise (1970), and A Survey of Community Noise By-Laws in Canada (1972) (1972) are all about "noise", which has a negative influence on society. Then, a shift took place in the Project's approach to its material at approximately the time of The Music of the Environment (1973). That is, as the Project evolved, it began focussing on the neutral acoustic environment rather than negative notion of noise. This does not mean noise was neglected in later works; rather, it was integrated into the larger concept of soundscape. For example, in

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[1] See p. 16 of this thesis.

such works as Five Village Sounscapes (1977), the sound which used to be considered as "noise" is dealt with in a more neutral context as one of the components of soundscape.

How did the WSP fulfill the aims which it formulated at the beginning of its life? As we have seen in Chapter One (p. 14), there were five aims outlined in the grant proposal to UNESCO prepared by Schafer in 1970. These aims were dealt with as follows. The first aim was "To undertake an intensive interdisciplinary study of contrasting acoustic environments and their effects on man". As a part of the social strategy, the works in the field of acoustic ecology contributed a great deal to this aim. For instance, Five Village Soundscapes (1977) is a typical example of "an intensive interdisciplinary study of contrasting acoustic environments and their effects on man". Also, The Book of Noise (1970), which focuses on "noise", includes a fairly detailed discussion about the effects of noise on man, that is, how noise harms human health. The works in the field of acoustic ecology are also related to the fifth aim, "To prepare reports as guides to future studies". For example, A Handbook for Acoustic Ecology (1978) was prepared by the WSP as a guide for future study.

The WSP applied its educational strategy to the third and fourth aims. These aims are "To educate students and field workers in acoustic ecology" and "To educate the general

public in acoustic ecology". The educational strategy was carried out not only through the Project's publications but through its other activities. For example, Workshops, press releases, and radio programmes were also used in order "to educate the general public in acoustic ecology". For the education of students, the Project's consistent affiliation with the Department of Communication Studies at Simon Fraser University is important. As well, regarding the education of field workers, all activities of the Project were educational for the members. In fact, the answers provided to the present writer's question "What did you learn through your association with the WSP?" brought the following responses. From Hildegard Westerkamp:

> Lots! Listening with more than aesthetic interpretation in mind. Listening for social, political content. Expanding the concept of music and musical culture.
> Skills: studio techniques
> field recording
> researching
> radio experience.[2]

From Howard Broomfield:

> It's difficult to answer this question in an uncomplicated way. The single word that describes best what I learned is "discipline". What I mean here is that I learned to pursue sounds and information not only in traditional library and journalistic ways, but also as a hunter would pursue game... I also learned to read sound levels technically and to estimate them accurately without measurement equipment; to use electronic music studio/laboratory; to note and describe interesting sound events, customs and behaviours; and to think about sound in a more clairaudiant way.[3]

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[2] Hildegard Westerkamp, in a letter of March 28, 1982, to the present writer.

[3] Howard Broomfield, in a letter of April 14, 1982 to the present writer.

In contrast, the second aim, "To suggest ways of changing and improving acoustic environments", does not seem to have been completely fulfilled by the WSP. This aim relates to acoustic design, the practical aspect of the social strategy. This does not mean that the Project was not active in the field of acoustic design. For example, the Project has identified areas where future acoustic designers may be able to improve the soundscape. As we have seen in Chapter One (p. 31), they are "the elimination or restriction of certain sounds", "the testing of new sounds before they are released indiscriminately into the environment", "the preservation of sounds", "the imaginative placements for sounds to create attractive and stimulating acoustic environments", and "the repair of the soundscape". However, the practical meaning of these activities, especially the last two, is not clear enough.

In its approach to acoustic design, the Project rightly considers not only the physical aspects of sound but also the semantic aspects, including such notions as "human information processing". In this regard, the Project notes:

> ...the criterion of balance, incorporating both variety and complexity, leads us to a basis for acoustic design. However, we must first distinguish between the requirements for balance that are based on physical properties of sound, and those based on information content.[4]

[4] Murray Schafer ed., Five Village Soundscapes, (A.R.C. Publications, 1977), p. 79.

The term "balance" seems to be an essential concept for the practice of acoustic design. However, the Project has not provided any more specific explanation of the term than the following:

> In the design of an environment, balance is the result of suitable constraints acting on the development of complexity and variety. An unrestrained increase in complexity could easily lead to chaos unless the structural principle of balance acted as a stabilizing force in the sense of negative feedback.[5]

The research for this thesis has suggested that the statement by the Project which comes closest to answering this aim, "To suggest ways of changing and improving acoustic environments", is the following:

> Techniques need to be developed for increasing variety within a soundscape, promoting a complexity of relationship and function, and establishing controls which will act to balance the soundscape on the larger scale.[6] [Italics in original.]

However, the "techniques" themselves needed for the implementation of these principles have not been provided by the Project.

[5] Ibid., p. 79.
[6] See p. 194 of this thesis.

From the discussions above, it may be concluded that the Project's efforts in the practice of acoustic design remain at the theoretical level. The Project identifies possible areas for the improvement of acoustic environments and explains the significance and the principles of acoustic design using such concepts as "balance". But the Project has never provided any more specific methods or examples of how to implement its principles of acoustic design in these areas. This means that, even from the viewpoint of theory, the WSP has failed in the second aim, that is, in "suggest[ing] ways [italics mine] of changing and improving acoustic environment".

This point leads us to another problem in the WSP's activities, that is, the ambiguity in the Project's use of the term "acoustic design". As has been discussed in Chapter One (pp. 31-32), the Project used the term "acoustic design" in two different ways. That is, in the larger sense, "acoustic design" refers to both the theoretical and the practical fields of the social strategy; in the smaller sense, it refers only to the latter. In Chapter One, this ambiguity of the term was discussed only with regard to the social strategy. However, sometimes the Project uses the term in a much larger sense which goes beyond the limits of the social strategy to include the other strategies.

For example, in such statements as, "Our work is

fundamentally one of design [italics in original], in the sense that we are concerned as much with how things ought to be as with how they are"[7], the term "design" refers to the Project's desire to influence people's approach to the acoustic evnironment, rather than to the improvement or production of actual acoustic space. Therefore, outside the discussion of the social strategy, "acoustic design" in the largest sense refers to the Project's desire to redesign people's approach to the acoustic environment. This involves changing society's perception of the acoustic environment. This change would lead to shifts in the society's legal and educational values among others.

Apparently, the Project uses the term "acoustic design" in a number of different ways. The individual concerns and scales are so different, ranging from the production of a specific acoustic space to alteration of social values, that it is almost impossible to apply a single term to all cases without any confusion. In fact the same problem exists in terms of visual design. However, the field of visual design has been developed so that it is now broken into many sub-categories which are identified using different modifiers. Examples of this include graphic design, architectural design, and landscape design.

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[7] Barry Traux ed., Handbook for Acoustic Ecology, (A.R.C. Publications, 1978), p. vii.

In the activities of the WSP, these different concerns and scales of concepts are not clearly identified by different terms. All are referred to as "acoustic design". This is one of the major problems in the WSP's activities. This problem can be solved in the same manner as in the visual field, that is, by using different modifiers.

In fact, the WSP's most recent work, Handbook for Acoustic Ecology, includes two terms which refer to design activity in the acoustic field, that is, "acoustic design" and "soundscape design". However, they have identical definitions and are used interchangeably. Murray Schafer in his recent conversation with the present writer suggested that these two terms could be used in the following way to differentiate them. "Acoustic design" could refer to the more practical aspect of the design activities, that is, the production of specific acoustic space; while "soundscape design" could refer to the more conceptual aspect, influencing individual and social values regarding the acoustic environment. According to these definitions and our conversation, Schafer and the present writer agree that the Project's design activities through its different periods based on the four strategies (conceptual, educational, political, and social) functioned primarily as "soundscape design".

The exceptions are Okeanos and Soundscape of Canada in that they can also be considered as design activity involving

specific acoustic spaces, that is, concert halls and radio broadcasts. In fact, as an additional explanation of the scope of acoustic design (see p. 31), the Project states that "Acoustic design may also include the compostion of model environments, and in this respect it is contiguous with contemporary musical composition." [italics mine.][8] However, there have been no attempts at designing and producing other wider examples of acoustic environments. This failure is quite crucial, because it means that the WSP did not demonstrate a wider variety of examples for people to experience.

As an organizational entity, the Project was quite successful in that it fulfilled the majority of its aims and completed its three phase research plan. Also, the Project was sucessful in that it produced and published various significant works in the field of acoustic environment. It suggested some possibilities for expanding the activity and increased public awareness of the problems in this field.

In fact, there have been responses from the public to the WSP's activities. These reactions can be seen most clearly in a wide range of printed media. There have been

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[8] Murray Schafer, The Tuning of the World (New York: Alfred A. Knopf, 1977), p. 271.

a number of articles representing the interests of different groups within the field of music. For example, an article by Donna Zapf in Musicworks reflects the positive reaction of people involved in contemporary, experimental music.[9] In the field of music education, there is a favourable article by Patricia Shand in The Canadian Music Educator.[10] Another article by the same author in The Music Scene represents more general awareness of the Project within the Canadian music community.[11] Also, there are several articles from outside of Canada introducing the activities and ideas formulated by the Project. For example, Otto E. Laske uses the concept of "soundscape" in one of his articles in International Review of the Aesthetics and Sociology of Music in Yugoslavia, and the Japanese composer, Minao Shibata, introduces the Project's activities in one of his books as a remarkable movement in Canadian contemporary music.[12] These two examples show the impact of the Project's work on

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[9] Donna Zapf, "The World Soundscape Project Revisited", in Musicworks, no. 15, (Spring 1981), pp. 4-5.

[10] Patricia Shand, "The Music of the Environment", in The Canadian Music Educator, (Winter 1974), pp. 5-12.

[11] Patricia Shand, "The World Soundscape" Project studies man's relation to sonic environment", in The Music Scene, (Nov-Dec, 1974), pp. 6-7.

[12] Otto E. Laske, "Verification and Sociological Interpretation in Musicology", in International Review of the Aesthetics and Sociology of Music, Vol. VIII, No. 2 (1977) pp. 212-236. Minao Shibata, Gakunonai Hanashi, (Tokyo: Zenongakufu Shuppansha, 1976), pp. 172-179.

the international music community.

As well, a variety of articles in newspapers and magazines have introduced the WSP's activities to the wider public. These publications range from small newspapers distributed locally in British Columbia to publications with provincial and national distribution.[13] Most of these articles report the WSP's activities in a manner which excites the readers' curiosity, and provides an introduction to the significance of its work.

Besides these articles in music journals and in general circulation newspapers, there have been articles in specialist

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[13] Examples of articles from small locally distributed newspapers are:
"Save a Sound Science Study", in The Daily Townsman, October 30, 1972, p. 6.
"SFU Seeking Sounds", in The Daily Townsman (Cranbrook), November 2, 1972, p. 13.

Examples of articles from provincially and nationally distributed newspapers and magazines are:
Michael Quigley, "Noise Winning Battle", in The Province, October 20, 1972.
"City Telephones 'Can Harm Hearing'", in The Vancouver Sun, October 24, 1973.
"Noise Researchers to Educate Public: Park not much with Eyes Closed", in The Vancouver Sun, December 13, 1973.
Alan Daniels, "Project Soundscape: movable, acoustical feast", in The Vancouver Sun, July 19, 1974.
Rick Boulton, "Soundscapers" Hold That Noise!", in Star Weekly, June 2, 1973.

magazines in other fields including architecture, communications, and aural history.[14] These articles introduce the WSP's activities to the specialists and suggest the significance of the Porject's work in the context of individual fields.

Many people have been influenced by the Project and have based their work on the ideas originally formulated by the WSP. These people include the members of the Project themselves working on their own works, and other individuals around the world. Many of the members' works are interesting examples of explorations of the possibility of expanding the concept and function of "music". Some of Barry Truax's electro-acoustic music is based on the concept of soundscape. For example, Sonic Landscape No. 3 (1975, rev. 1977) and Androgyny (1978) are specifically sub-titled "A Special Environment for Four Computer-Synthesized Soundtracks". Also, most of Hildegard Westerkamp's compositions are concerned with environmental sounds and questions. A Walk Through the City (1981), which integrates recitation of a poem, voices

[14] Examples are:
"Would Soundscape Project Document No. 5" The Vancouver Soundscape", in Canadian Architect, (September 1974) sec. Perspective: Praise, Louis Giansante, "The Soundscape: Louis Giansante, "The Soundscape: What it is, How it works, and Why it's improtant", in Media and Methods, (November 1979), pp. 44-47.
W.J. Langlois, "Notes From Aural History, Provincial Archives of British Columbia", in Sound Heritage Vol. III, No. 4, (1974) pp. 1-3.

of Vancouverites and the sound of the city, and Cordillera (1981), a sound environment installed in the Charles H. Scott Gallery, are recent examples. Murray Schafer's Music for Wilderness Lake (1979) and The Princess of the Stars (1981) are remarkable pieces which are based on the interaction between his compositions for the performers and the natural environments. On the other hand, Louis Giansante at the New School for Social Research in New York has been producing a number of experimental radio programmes based on the WSP's ideas. It would be interesting to examine the influence the WSP had on these subsequent works. However, this investigation is beyond the scope of this thesis.

The WSP attempted to liberate "music" from its traditional context of the concert hall, and to expand its concept and extend the role of musicians into the wider context of the acoustic environment. The members of the Project based their activities on their social concerns and aesthetic values, while using scientific methods. From the traditional musical perspective, the WSP's activities might be considered as extra-musical; however, its goal is to integrate "music" into the new field of "soundscape/acoustic design". This means that the concept of "music" itself ultimately would be expanded so as to include the general acoustic environment, and thus musicians would extend their social roles to the improvement and creation of wider range of acoustic environments. The activities of WSP suggest some possible directions for the music and musicians of the future.