towns in the Cherokee ball play are full-bloods, and if one should attend the native dances in any part of the reservation he would find the membership of the teams almost entirely composed of individuals with a high degree of Cherokee blood. On the other hand, although some younger full-bloods do enjoy the "square" and "round" dances, the participants tend to be more nearly a random sample of the reservation or district, and the sponsors are usually white Indians. More significantly and obviously, linguistic habit and degree of Indian blood are highly correlated. Literacy in the Cherokee syllabary is more closely associated with Cherokee blood than is speech habit, a commentary on the conservative value of Sequoyah's invention.

In summary, among the Cherokee the preservation of certain aboriginal traits is positively correlated with a high degree of Indian blood, native linguistic habit, and geographical segregation. A control group of analogous non-aboriginal traits shows an inverse relationship to the same elements. The relationships implied in the foregoing analysis indicate that traits survive in a configuration of mutually reinforcing factors. The product of these factors is a measure of conservatism.

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APPLIED ANTHROPOLOGY AND ITS RELATIONSHIP TO ANTHROPOLOGY

A good deal has been written lately on the question of whether or not applied social anthropology is real anthropology. Trained social scientists working in government agencies during the war have issued a number of statements explaining the scientific nature of their present occupations. Such writing often provides a barn-door target for social scientists in universities who find it easy to point out how very unscientific are many of their activities, and so the university social scientist satisfies himself that university research is, in the long run, the best activity for a scientist.¹

The science of anthropology is, of course, quite a different thing from government administration. No matter how much an anthropologist in government may rationalize his activity, it is essentially an application of techniques to carry out specific policies, and as such cannot be called true science, any more than medical practice or dentistry can be called science. If the anthropologist in government would simply recognize the essential difference between science and applied science, then the discussion of anthropology in government might proceed more constructively and with less name-calling.² For while administration is one thing and science another, there is a place in government for social scientists, and there should also be a place in the anthropological curriculum where an administrator could learn some of the findings of anthropology, particularly in the fields of law, government and culture contact. In the meantime, it would save anthropology some future embarrassment if its representatives in govern-

¹ Recent articles pro and con include: Tax, "Anthropology and Administration" (America Indigena, 5, No. 1, 1945, pp. 21-33); Thompson, "Some Perspectives in Applied Anthropology" (Applied Anthropology, Vol. 3, No. 3, 1944); Keesing, "Applied Anthropology in Colonial Administration" (The Science of Man in the World Crisis, Ed. by. R. Linton, 1945, pp. 373-398); Leighton, "Training Social Scientists for Post War Conditions" (Applied Anthropology, 1, No. 4, 1942).

² Such as "Ivory Tower", "Escapist" versus "Scientific Prostitute".

ment would not insist on calling all of their present activities true anthropology (e.g., work in military intelligence, "psychological" warfare, administration).

A peculiar recent development midway between government work and the universities is a preoccupation with "national character structures", especially those of enemy nations. Some of the statements concerning Japan, for instance, made by this group are suspiciously reminiscent of the racism of an earlier day. There is a strong implication that because of our enemy's undesirable character structure and our own desirable virtues in this regard (plus better firearms), we have the moral right to walk in and reform, by force if necessary, the family life, education, and religion of peoples different from ourselves. A curious doctring for the heirs of Franz Boas.

Another ethnocentric trend among some anthropologists, especially some of those working in the applied field, is that of claiming that anthropology is the only true path toward the salvation of the world, and that, therefore, it should be used exclusively in guiding the nation's policy makers. It is hardly necessary to point out that similar claims are put forth by engineers, political scientists, and ministers of the gospel.

At a more modest level there are spheres of activity wherein persons trained in the field of anthropology may apply the techniques of their science. One well-known example is in the field of assisting the administrator in a cross-cultural situation such as colonial government, the American Indian Service, and more recently the War Relocation Authority. In such fields of administration the applied anthropologist may fulfill a socially useful function in reducing both the monetary and the human costs which result from misunderstanding and maladministration.

In this kind of work it is, of course, assumed that the professional applied anthropologist will observe certain basic ethical principles in much the same way as the medical doctor or the lawyer observes certain ethical standards in order to prevent himself and his profession from falling into disrepute. Just as the medical doctor has as a basic doctrine that he should prevent disease and save life, so the applied anthropologist tends to operate on a basic doctrine that he should prevent friction and violence in social relations, preserve the rights and dignity of administered groups, and that he should save lives. It is on this assumption that he justifies work in colonial administration or even in military government in the belief that his influence will ultimately aid in establishing peaceful self-respecting relations between peoples and cultures. There is, of course, always the possibility that the anthropologist in this

³ At a recent meeting of persons interested in Japan, some of the social "scientists" present made remarkable generalizations about the "adolescent" and "gangster" qualities of our Asiatic enemy—overlooking for the moment the youth of American culture, and such little matters as American lynching parties and race riots. To explain the causes of war in terms of individual behavior or even cultural patterns is to ignore the whole complex of socio-economic developments that lead to international conflicts. The writings of the national character-structure group have been largely in the form of "confidential" mimeographed pamphlets and so not subject to scientific criticism; nonetheless their conclusions are presented to government agencies as the findings and methods of "anthropology".

⁴ See for instance Malinowski's article "Practical Anthropology" (Africa 2, No. 1, 1929, pp. 22–38; also Embree, "Community Analysis" (WRA) (American Anthropologist, 46, No. 3, 1944, pp. 277–291). For criticism of this type of applied anthropology see Herskovits "Applied Anthropology and the American Anthropologist" (Science, 83, 1936, pp. 215–222).

situation, like his non-anthropologist associates, will fall into the fallacy of regarding his culture as the only one that can provide a yardstick of values.

Another recent field of applied anthropology, and one which has been the subject of considerable criticism, is that of industrial relations. In general the charge is that the anthropologist who works for an industrial concern has automatically sold his soul to management, and that his findings must, therefore, go against the best interests of the worker and the total society. Whether or not such a situation has actually developed in certain instances, there is nothing inherent in the situation that must lead to this. It is again a question of professional ethics.

The present war has brought greatly increased demands on anthropology to provide personnel in various fields of applied anthropology, and also to make available in useful form some of its findings for the benefit of administrators. It is partly because of this pressure that so many attacks have been made of late on the "pure" social scientist. One method of resolving this tension, which is likely to become greater rather than less in the future, would be for the universities to make some recognition of the legitimate role of applied anthropology in modern society. This could be done by adjusting the curricula in two ways: (1) by providing for a limited amount of specific training in applied anthropology at the graduate level, and (2) by providing for a program of study specifically tailored to fit the needs of an administrator who might need or desire some insight into the field of anthropology.⁵

There is no reason why such adjustments in the present curricula of the larger departments of anthropology should in any way hinder developments in pure research. On the contrary, by recognizing the current need in their curricula, they might well draw to themselves more students and, as a by-product, more money. Part of such an increase in students and financial backing would inevitably produce a wider selection of first-rate research scholars, together with the necessary funds for carrying out broad over-all programs of true anthropological field work.

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THE IMPORTANCE OF RECORDINGS OF INDIAN SONGS

A new phase of the study of Indian music will open when further examination of existing recordings is possible and new recordings are made by improved methods. Musical notation does not convey the sound of Indian singing, neither does our alphabet show the exact sounds of a foreign language. Both musical transcription and alphabet recall familiar sounds and may be supplemented by special signs, but their limitations are recognized. The exact pitch of Indian singing can be shown by tone photography, but the actual performance contains many peculiarities and mannerisms that cannot be shown in any graphic form. Indian music must be heard in order to be appreciated, and those who have not heard it on the reservations may study it on the recordings, the earlier ones of which were made by old Indians who sang in the native manner.

⁵ A few suggestions along these lines may be found in Leighton's article and in the summary of a talk by the writer (Bulletin of the Chicago Anthropological Society, I. No. 2, 1945).