

**ALLOCUTION DU PROFESSEUR LEWIS R. BINFORD
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I stand here today, as a result of the dedicated investments made by many people in placing high value upon the products of science, and on the persons engaged in scientific work. Clearly the Fyssen family, who made the foundation a reality, must be seen as inspirational for all of us who benefit from their forethought and graciousness.

In addition the Board of Directors, the administrative Council, the Scientific Committee, and the active membership are clearly to be thanked and greatly appreciated for their commitment to advancing science.

I apologize for not using French to address this audience. Perhaps the best way to justify this decision is to recall for you an event that happened about forty years ago. I was then working with Prof. Francois Bordes of Bordeaux. When arriving in France, of course I came to Paris and frequently visited one or two days. On the occasion I have in mind, I visited with Prof. Leroi-Gourhan and he asked me if on my return trip I would give a lecture in Paris. I said yes.

I used the dictionary, practiced the pronunciation, tried to memorize the “rough spots” and then read it over and over on the train going to Paris. I arrived at the lecture hall a little late and was taken to the podium immediately. After the lecture, I commented to Prof. Leroi-Gourhan that the lecture hall was not small, like they generally used for my talks, and that I did not know so many people were interested in what I had to say! My host smiled, and said, “Oh Binford, they do not care what you say. Everyone knows you destroy the French language like no other can, they come to hear and smile”.

This evening I wish that my topic “The Evolution of Human Societies” should be treated a bit more seriously and elicit fewer chuckles

and smiles. I do, nevertheless, apologize for speaking in English.

Anthropologists and Archaeologists have appealed to the idea of evolution in many different ways since the very early days of these professions. The most common context was when users wished to link their ideas of change thru time in cultural products with various material expressions of their ideas of progress. Another way of putting this is that the word evolution was used primarily to signify “progressive development” taking place within a given culture historical trajectory.

In biology, evolution had a more systemic connotation. It referred to the natural processes whereby biological forms or species were gradually transformed such that some older examples went extinct while new and frequently more diverse forms appeared as time passed. The natural process of evolution, considered from the biological perspective, was “self originating”, “self pruning”, and “self diversifying”. The class of phenomena experiencing this process is that of a species. A species specific breeding population may reproduce itself, go extinct, or ultimately bring forth new species when viewed historically

If we shift perspective once again and ask, what is the dynamic context for such a process? Where is a breeding population situated such that it may undergo “self pruning”, “self diversifying”, and thus appears to be “self originating”? The answer resides in the relationships between the breeding population and its environmental setting. The resulting dynamics are properties of the ecological articulations of the breeding population with its natural habitat. Therefore we must seek to recognize causal dynamics for evolutionary changes in species level biology and/or adaptation thru ecological dynamics that destabilize former ecological relationships among populations of species and/or modified organismic structure autochthonously within both plant and animal communities.

If we accept the above characterizations as to the “seat” of evolutionary modifying processes among biological species, it should come as no surprise that I have had a lifetime of interest in the growth of understanding that has occurred as regards cultural evolution.

My undergraduate college experience spanned the (1948-52) era. This coincided with the formative days for the field of Ecology within the United States. Technically I was enrolled in a college program of "Forestry and Wildlife Management". Much of the case material that I studied in those days related to natural processes occurring such that different species tended to invade areas that had been cleared by man of the mature trees "originally" growing there at the time Europeans populated North America. Such studies focused on learning how different suites of species modified cleared areas and thereby changed the environment such that other species became more dominantly present than was true "originally." These were called succession studies. It was quickly learned that the conditions favoring the species composition of the "original" forest were modified by that forest as well as the human activity of cutting the "original" forests. In addition rainfall and temperature conditions could have changed substantially favoring growing conditions for species other than what was there before logging.

This is a simplified example of ecological dynamics and the push-pull of causal processes favoring change in species composition over time. If we had time a more complex model more appropriate to the issue of speciation rather than species replacement could be offered. Nevertheless, it like the example above could become very complicated when we allow genetic variability within a species and dynamics which establish competitive exclusion versus inclusion, or advantage differentially to act at different times. It is the latter reproductive performance brokered by differential advantage that under biological evolutionary processes is so powerful.

My early years in college laid a very important knowledge base for use in a very different academic field.

In 1952 I enlisted in the army. After standard training and a term in foreign language school, I was assigned to duty in Japan and later on Okinawa. My job was to interface between U.S. military activities which impacted the local people. Another way of saying this is that I was; (1) a

way for local people's concerns to get voiced in military planning conferences and meetings, and, (2) to actually be present to facilitate and help ensure that local concerns were respected as roads were built, landscapes were modified, etc.

It was the experiences I had with peoples of very different cultures that convinced me to take up the study of anthropology after my military service was completed.

Anthropologists had been fighting about evolution for years prior to my appearance in the field. At the same time, however, the study of modern genetics was all the rage. The actual excavation of very early "living sites" of our African fossil ancestors was a highly productive activity. Relevant and provocative learning was proceeding at a fast pace. As growth of knowledge occurred, new techniques were made available to still further advance our knowledge. One good example rests with several new techniques

for obtaining estimates of the time elapsed since bones or stone tools had been deposited in archaeological sites. These capabilities dramatically enhanced our abilities to study the past. New problems were recognized in many research contexts because of such technical advances.

If we were to profitably study cultural evolution we had to use units in comparative study that enjoyed relative organizational integrity such that evolution could produce patterns of change with continuity. In addition it became clear that Anthropology was far too broad a field to investigate in any methodologically sound fashion. I decided to limit my basic researches to only peoples who were hunter-gatherers- that is peoples who regularly exploited only non-domesticated plants and/or animals for food.

This was a good decision since it was recognized within the field that hunter-gatherers were rapidly going extinct as such in the greatly reduced number of isolated places where hunter-gatherers survived into the modern era. They needed to be studied and the causes of their diversity investigated. I took this as my professional challenge. My initial

strategy was to regularly teach a course on the issue of comprehensively describing and trying to explain patterns of documented variability among hunter-gatherer based socio-cultural systems. During this era I accumulated a basic library on hunter-gatherers that included six hanging file cabinets of reprints and "Xerox" copies of articles as well as a twenty seven foot long and seven foot high wall of books, not including relevant journals and periodicals.

In addition I did ethnography among the Nunamiut Eskimo, The Alyawara aborigines of Australia, and directed research by several graduate students among different groups of "Bushman" living in Botswana. My on the ground experience visiting and living with hunter gatherers as well as my comprehensive study of other anthropologists and early explorers descriptions of their experiences among hunter-gatherers served as the basis for a major pattern recognition study by me (Binford 2001) which sought to describe the organization and behavioral variability occurring among the 339 different ethnic groups for which I could synthesize sufficient information to make comparative description reliable. These data together with detailed information regarding the environments within which they lived provided the knowledge base for the study of ecological articulations between properties of the hunter-gatherer systems and the dynamics as well as normative summaries of their ecological and environmental settings as potential causal conditioners for the diverse forms of adaptation documented. Achieving this synthesis of information regarding the variability among ethnographically documented hunter-gatherers and how such variability patterned with environmental as well as ecological information permitted one to project this available information regarding the full range of ethnographically documented hunter-gatherer information on the worlds geographical locations that were in fact occupied by non-hunter-gatherer systems at the time of ethnographic description. This allows researchers to use such projections in several ways. For example, they can serve as possible clues to the initial conditions existing in regions that were subsequently

modified as a result of changes in the economic basis for systems extant during the colonial period such as Agriculturists, Pastoralists, Politically complex states, Chiefdoms etc., or any other known forms of non-hunter-gathering based societies. The character of all evolutionary change trajectories are at least partially dependant upon the initial conditions obtaining within the system when causal change dynamics were initiated upon it.

This approach permitted the researcher to become informed of some “other things that must be equal” for generalizations regarding the results of propositions offered as to “causal processes” to reliably yield specific “causally argued” results. The latter, of course, being available to others for serious consideration and use.

This statement is methodologically fundamental. If we hope to utilize scientific methods to gain new knowledge of the earthly focused past, as well as present dynamics standing behind change and diversification that is both experienced and documented from earthly phenomena, we must be continually seeking new, less ambiguous and more germane ways of studying phenomena such as evolution. My research career has been strongly focused upon the use of new research strategies, tactics and procedures (Binford 2001). The growth of solid understanding is centered upon the techniques used for both description and analysis of data. The latter must underpin all productive generalizations, interpretations, and all argued suites presented for understanding.

Binford, L. R.

2001 *Constructing Frames of Reference: An analytical Method for Archaeological Theory Building Using Ethnographic and Environmental Data Sets*. University of California Press, Berkeley.