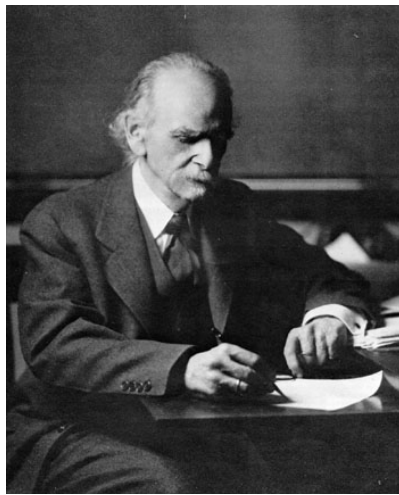


Franz Boas and Early Camera Study of Behavior

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Franz Boas at 70

In 1930 Franz Boas took a motion picture camera and wax cylinder sound recording machine to the Northwest Coast.' He was 70 years old.

It was Boas' last field trip to the Kwakiutl, a people he had studied for more than 40 years. He was accompanied by Julia Averkieva, a Russian anthropologist. During the field trip, Boas shot 16 mm motion picture footage of dances, games, some methods of manufacturing; recorded songs and music; and, in general, sought to gain those bits of information he felt were missing from his knowledge of the culture.

Boas did not complete the analysis of the data he collected nor publish the results. Ruth Benedict thought that the reason he failed to complete the study was the theft of the films. In describing the apparent loss, Benedict stated in a letter to Margaret Mead that " Papa Franz takes it very hard that his pictures are gone; he counted on them for a study of rhythm and he even says, 'I might as well have stayed at home last winter.'" (Mead 1959:405-6). Fortunately, the films did survive. Franziska Boas, Franz Boas' daughter feels that, "The films were not stolen. As I understand it, the

wax cylinders (sound recordings) were stolen out of Gladys Reichard's car trunk." (Personal Communication). Ray Birdwhistell recalls that he "was told by several (people) including Margaret Mead and Jane Belo that there was no method available which suited his (Boas') interest in rhythm" (personal communication). The point is worth making only because the idea that the loss of the films prevented Boas from doing research persists today (Jo-Ann Kealiinoh Omoku in Hanna 1979:327).

In any event, Boas asked Gene Weltfish-because of her long term interest in motor habits-to study the footage of games and technology. Her own research was sufficiently demanding at the time that she was unable to complete the analysis (Weltfish, personal communication). Boas asked his daughter to study the dance footage. "The analysis of the dance films was done by me (Franziska Boas) and was enlarged with material from the "Social Organization and Secret Societies of the Kwakiutl Indians" (Boas 1897),and part of it was published as discussion after the Kwakiutl article by Boas in "The Function of Dance in Human Society". The manuscript of that was sent to Erna Gunther along with the films. " (Franziska Boas, Personal Communication)

In the mid-1930s Boas asked Stuyvesant Van Veen, a painter working with David Efron on the study of gesture, to make some drawings from the 1930 footage. In 1961 the footage, drawings, and manuscript were given to the Burke Museum of the University of Washington by Franziska Boas. Bill Holm of the Burke Museum edited the footage into a two part film (Part I deals with Games and Technology and Part II with Dances and Ceremonies), annotated the footage with appropriate citations from Boas' publications, and attempted to locate the Kwakiutl in the film and ask them to describe what was depicted. The films together with Holm's notes are available from the University of Washington Press.

From the films, drawings, Boas' letters, publications, and the memories of people knowledgeable about the project, it is possible to partially reconstruct Boas' intentions, research plans, and ideas for the public presentation of the results. It is important to do so because I believe Boas to be one of the first anthropologists, and perhaps the first social scientist anywhere, to use the motion picture camera to generate data in natural settings (as opposed to a laboratory) in order to study gesture, motor habits, and dance as manifestations of culture.

An examination of the footage together with references by Boas to the filming in his field letters (Rohner 1969) plus statements from his posthumously published article on dance (Boas 1944) and other publications provides us with an opportunity to reconstruct Boas' attitude toward filming as a research strategy and to postulate how his ideas about body movement, dance, and culture became an ideology which caused him to construct the footage in a particular way. (Blackman (1977) has previously examined Boas' potlatch photographs in a similar fashion.)

Further, I will demonstrate how Boas' interest in body movements and dance brought together several lifelong themes in his work-the relationship between race and

culture to behavior and the study of expressive and aesthetic forms of culture.

Clearly it is not an overstatement to suggest that Franz Boas should be regarded as a father figure in visual anthropology. He is at least partially responsible for making picture-taking a normative part of the anthropologist's field experience—a characteristic which has distinguished us from other students of the human condition. One can only speculate upon the development of the general field of body motion studies and visual anthropology had Boas completed his 1930 study and published the results.

While Boas had used still photography in the field since 1894, his interest in and use of the motion picture camera was of a much shorter duration. Boas wrote nothing about film as a scientific tool or even about his views of the role of the cinema in our society. I have wondered for some time why Boas never reacted formally to Robert Flaherty's film, *Nanook of the North*—a popular film about people he had studied. Surely it must have been a topic of conversation among Boas' friends, colleagues, and students. Did he see it as a new form of ethnography? The only connection I have uncovered is that Frances Flaherty once visited Boas in 1914 to ask his support for her husband's work (Ruby 1980).

I do not know whether Boas went to the movies or to travel/lecture films or whether he, like many of his contemporaries, saw all film as a vulgar perversion for the uneducated masses. I do not know what he thought of anthropologists who acted as consultants to commercial producers of travel films (cf. the Harvard-Pathé series discussed in de Brigard 1971), or whether he was aware that there was a nascent movement to use film in the teaching of human geography and anthropology.

Boas undoubtedly knew that some anthropologists such as Regnault or Haddon in the 1897 Torrey Straits expedition had taken movie cameras into the field. Many of these attempts at making re-

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searchable film footage were frustrated by the bulkiness and costliness of 35mm film equipment. Even when 16mm film did appear in 1923 it was marketed by Kodak as a strictly amateur film for making home movies—the moving picture equivalent to the brownie snapshot. Professional filmmakers referred to 16mm as "substandard" to distinguish it from "real" film (that is 35mm). For technological reasons there was little chance for field research film to develop until the end of the 1920's.

Dr. Nicholas Michelson, Franziska Boas' former husband, suggests that Boas might have gotten the idea to film from his son Ernst Boas. "Already in the year 1924 or

1925, during my internship at the Montefiore Hospital for Chronic Diseases, New York, Dr. Goodhart, the chief of Neurology, showed to the medical students of Columbia University motion pictures that he had obtained on patients suffering from the late stages of Encephalitis lethargic (paralysis agitans syndrome and related motor involvement). I assume that Franz Boas knew about the existence of those films through his son, Dr. Ernst Boas, who was at that time the medical director of the Montefiore Hospital. " (Michelson, personal communication).

Where Boas actually learned the mechanics of filmmaking is also unknown. Franziska Boas says her father "never had used a motion picture camera before. If he followed his usual pattern he would have gotten instructions from a photographer and practiced with a camera before he left. " (Franziska Boas, personal communication). It is interesting to speculate about whether his choice not to engage a professional filmmaker as collaborator was due to budgetary limitations or to a preference to shoot the footage himself.

In screening his films on Kwakiutl dance one notices the wax cylinder sound recorder visible at times. Since the length of time the camera will run without rewinding the motor or replacing the film is different from the length of time the recorder will run, we can see Julia Averkieva, Boas' field assistant, appear several times to change the wax cylinders. As Boas did not write about his field techniques, it is not certain what he was attempting. He could have been trying to record the dance and music at the same time for efficiency's sake or he may have naively assumed that he could synchronously record sound and image. It was, of course, technically impossible to do field sync-sound filming in 1930, but perhaps he still wished to try. Boas espoused a theory of rhythm which encompassed dance, music, song, and many other aspects of culture, so it is quite possible the footage and sound recordings were made to study rhythm (Benedict in the letter to Mead 1959:495-6 cited earlier claims that that is indeed what he planned to do). Perhaps he simply did not have sufficient technical knowledge to realize that spring-wound camera motors run at erratic speeds and, therefore, produce footage which cannot be used to study rhythm.

It is clear that this footage was shot primarily for research purposes. That is, Boas did not intend to use it for the production of a motion picture to be shown to the public. The viewer must ignore the sound recording equipment (the display of the technology of filmmaking within the frame, showing equipment like the recorders, has only recently become acceptable as a sign of cinematic realism), the people standing around in the background, the exterior location of dances which are supposed to be conducted inside at night, and the telephone or electrical poles in the background. These images were not made to be seen by the lay public but by analysts who "look the other way. " One sees events which normally take place at night inside and in front of an audience performed during the day outside in front of and apparently solely for the benefit of the researcher and his camera.

The footage only makes sense if one believes that behavioral events removed from

their normal social and physical context retain sufficient validity to reveal patterns of culture.

Boas felt an urgent need to salvage and, if necessary, reconstruct as much of the traditional culture of the Kwakiutl as possible. He subscribed to a theory of culture which allowed him to remove bits of behavior from their normal context for purposes of recording and analysis. This theory of culture generated an approach to imaging. Boas filmed two Kwakiutl chiefs boasting, that is, making speeches. Normally these speeches would have occurred inside at night within the context of a particular ceremony and in front of an audience. In the film the two men are outside in the daylight without ceremony or audience. For Boas the performance retained those elements he wished to study and was, therefore, valid for his purposes.

It is rather easy for us to see how Boas' theory of culture became an ideological framework causing him to take pictures in a particular way. The ease of recognition of the effect of his ideology on his photographs and films is possible because few of us subscribe to the "bits and pieces" approach to culture prevalent during Boas' time. Were we to take a contemporary photograph or film and attempt a similar analysis it would be much more difficult, since the text would reflect current thinking and its ideology would consequently be much more transparent and illusive to us. I wish to make it very clear that by saying Boas' view of culture caused him to generate data in a particular fashion, I am not implying that Boas was somehow different from other anthropologists. All theories of culture become ideological frameworks which shape and generate data. It is the nature of research design and anthropological knowledge.

In three letters written in the field to Ruth Benedict, Boas partially confirms these contentions. On November 9, 1930 he said, "The question of song and dance rhythm was not complicated. The

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feet and the hands move with the time-beating; but time-beating and singing are a tough problem." And again on November 13, 1930, "Julia (his field assistant) danced last night with the crowd and has her first formal dancing lesson tonight. . . the dance problem is difficult. *I hope that the films will give us adequate material for making a real study.*" (italics added) And finally on November 24, 1930, "I already have a good deal of materials for this style-motor question." On November 24, 1930 Boas wrote to his son, Ernst, "Julia is learning the dance, but I believe it is too difficult to learn quickly. At any rate, through the criticism she receives I learn what it is all about." (Rohner 1969:293-4).

Boas believed this footage would contain a more detailed and secure data base for his analysis. Since he had gathered data on Kwakiutl dance since 1888, it is interesting to speculate on why he thought the filmed data would provide him with "

adequate material for making a real study" when his written observations would not. Franziska Boas provides us with a tantalizing possibility. She feels that Boas filmed because he "wanted to know whether Laban Notation was being expanded for wider use than just for dance (mostly Ballet) but I did not know enough about it to make use of it myself. His pattern was to investigate any new channels that might be fruitful. He very probably would have used Laban Notation had he lived later into the 1940's." (Franziska Boas, personal communication).

If her conjecture is accurate it means that Boas was among the earliest researchers to use a camera to study dance; to record dance in film for possible Labanotation analysis; and to use Labanotation for the study of non-western dance and motor habits. Martha Davis (personal communication) informed me that Laban had been working on his system as early as 1900 even though it was not published until 1927. According to Diane Freedman (personal communication) Laban was at this time thinking about expanding his system to include non-western dance and broadening it to be a method for the study of all forms of body movement. However, none of these ideas were published until long after Boas' death. Whether Boas knew Laban or discussed these ideas with him is not known. There are no letters in Boas' collected correspondence at the American Philosophical Society library in Philadelphia between Boas and Laban. Nor is there any evidence that any of Laban's students who he had been training since 1915 ever had contact with Boas.

In any event, Boas was an early proponent of the study of dance and body movement as culture. Boas was noted for his catholic approach to the study of human beings—any human activity was automatically the subject matter of anthropology. (Herskovits 1953: 7)

In 1888 Boas published, "On Certain Songs and Dances of the Kwakiutl of British Columbia" in the first volume of *the Journal of American Folklore*. The interest in Kwakiutl dance continued throughout his life. In his last published paper Boas explained why it was so important to the understanding of that particular culture. "It will be seen from the foregoing that song and dance accompany all the events of Kwakiutl life, and that they are an essential part in the culture of the people. Song and dance are inseparable here. Although there are expert performers, everyone is obligated to take part in the singing and dancing, so that the separation between performer and audience that we find in our modern society does not occur in more primitive societies such as that represented by the Kwakiutl Indians." (Boas 1944:10).

Boas did not confine his interest in dance to the Kwakiutl but espoused the study of dance and indeed of all body movement in culture. In *Primitive Art* (1927), he articulated a theory of dance as emotional and symbolic expression as part of his theory of rhythm in art and culture. It is a reaction against the Marxist or economic determinist arguments of Bucher and others and at the same time avoids the obvious connection with Freud:

"It is often assumed that regularity of musical rhythm, which is found in most primitive music, is due to the multiplicity of motor actions connected with music, particularly to the close relation between music and dance. It is true that primitive song is often accompanied by movements of the body,-a swinging of the whole trunk, movements of head, feet, and arms; hand clapping and stamping; but it is an error to assume that for these the same synchronism prevails to which we are accustomed... (1927:315)

"On account of the physiologically determined emotional quality of rhythm it enters into all kinds of activities that are in any way related to emotional life. . .

"The origin of rhythm must not be looked for in religious and social activities but the effect of rhythm is akin to the emotional states connected with them and, therefore, arouses them and is aroused by them. I believe the great variety of forms in which rhythmic repetition of the same or similar elements is used, in prose and in poetry as a rhythm of time, in decorative art as a rhythm of space,-shows that Bucher's theory according to which all rhythm is derived from the movements accompanying work cannot be maintained, certainly not in its totality . . . There is no doubt that the feeling for rhythm is strengthened by dance and the movements required in the execution of work, not only in the

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common work of groups, of individuals who must try to keep time, but also in industrial work, such as basketry or pottery that require in their execution regularly repeated movements. The repetitions in prose narrative as well as the rhythms of decorative art, so far as they are not required by the technique are proof of the inadequacy of the purely technical explanation. The pleasure given by regular repetition in embroidery, painting, and the stringing of beads cannot be explained as due to technically determined, regular movements, and there is no indication that would suggest that this kind of rhythm developed later than the one determined by motor habits." (1927:317)

While Boas saw dance as an emotional and aesthetic outlet for the dancer, his interest was not in the rewards for the individual who engaged in the activity so much as in the social identity of the dance as an expression of culture. Movement, whether dance or merely walking, was a means of signing one's cultural identity, and as such should be amenable to ethnographic description and analysis. In the published discussion following his paper on Kwakintl dance he articulates these ideas.

"Q (anon.): What is the relation of ordinary movement in everyday activity to the movements of the dance?...This involves the relation between motor pattern and dance.

"(Franz Boas): That is probably a very difficult question to answer. The relations between general motor habits and the dance is a complicated matter. I think that everyone will agree that when you see an Indian of one tribe walk, you realize it is an entirely different gait from that of another. Although I cannot prove it, I believe that the peculiar dancing movements have to do also with the general habit of walking. . . The whole gesture habit cannot be easily reduced to outer conditions. Some people have free gesture-motions and others have restricted gestures, and these are generally determined by social environment in various ways; but the actual reason is very difficult to determine. We do not know whether we have any kind of detailed investigation which would make clear the sources." (Boas 1944:18)

His interest in the rhythms of dance and body movement was a complex one since it forced Boas the scientist and Boas the concerned citizen to coalesce. Boas was a fervent opponent of racial explanations of behavior. He sought to establish the primacy of culture over race as a means of understanding the difference between human groups (Stocking 1974:18-19).

The interest was more than a mere involvement with a set of abstract ideas. It was personal and political. It was his passion as a scientist, as a politically progressive individual, and as someone who fought all his life against racial discrimination. Boas left Germany because he felt he would have more opportunity in America. Ironically, he found anti-semitism within his own profession. As a Jew, Boas all his life fought anti-Semitism (the dueling scar on his face displayed the depth of his convictions) and was an early champion of civil rights for Black Americans (his friendship with W.E.B. DuBois is something that needs further investigation). In the 1930's Nazi social scientists began to publish their "scientific" explanations for the racial inferiority of non-Aryans. Boas now had an additional reason for advocating the primacy of culture for understanding human differences.

Boas combined his need to dispute the racists with his interest in gesture and motor habits in the work he directed by one of his last students, David Efron (1941). In the introduction to the published version of Efron's dissertation, Boas makes clear, his interests:

"The present publication deals with the problem of gesture habits from the point of view of their cultural or biological conditioning. The trend of this investigation as well as that of the other subjects investigated indicate that, as far as physiological and psychological functioning of the body is concerned, the environment has such fundamental influence that in larger groups, particularly in sub-divisions of the White race, the genetic element may be ruled out entirely or almost entirely as a determining factor...The behavior of the individual depends upon his own anatomical and physiological make-up, over which is superimposed the important influence of social and geographic environment in which he lives." (Boas in Efron 1941:ix-x)

Efron's work was part of a number of studies being conducted under Boas and other Columbia professors' guidance. "My research on race and gesture was indeed part of a more comprehensive investigation (to be exact, of a series of independent investigations) dealing with the question of the alleged racial determination of mental and bodily conduct. As far as I remember, in addition to 'motor habits' (an expression coined by Boas himself and not by Jakobson, as some people have suggested), the following aspects were also investigated: race and crime, race and mental disease and race and intelligence. However, I do not think that the results of these studies have been made public. It is possible that part of the material concerning the study on race and intelligence was incorporated in some of Otto Klineberg's publications." (David Efron, personal communication)

Efron's study employed methods which remain unparalleled in their innovativeness. They included: " (1) direct observation of gestural behavior in natural situations, (2) sketches drawn from life by the American painter, Mr. Stuyvesant Van Veen of New York City under the same conditions, (3) rough counting, (4) motion pictures studied by (a) observations and judgments of naive observers, and (b) graphs and charts, together with measurements and tabulations of the same." (Efron 1941:41)

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Paul Ekman in his introduction to the new edition of Efron's book has discussed the general importance of Efron's work to the development of the study of body movement. Two aspects of this work deserve more discussion from the vantage point of this paper. First, according to Efron (personal communication), ". . .the idea of using film as a research device in the field of 'motor habits' originated entirely with 'Papa Franz' himself who discussed with us at great length his ideas about photographs, motion pictures and sketches as research tools. These ideas guided us continuously in the development of our techniques. . . "

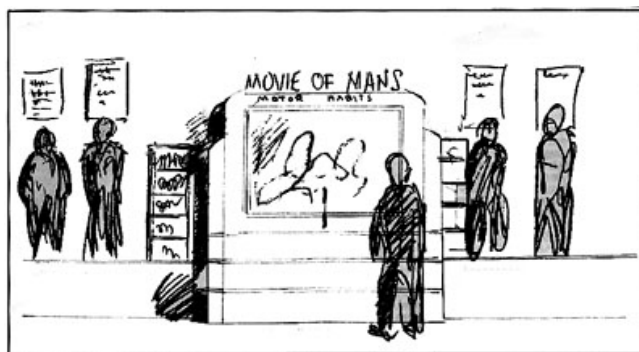
In attempting to discover the historical origins of a visual anthropology, it would be nice if a direct connection could be made between Efron, Boas, and Mead and Bateson's work. Unfortunately the link is indirect. They were all at Columbia University. We know that Mead was Boas' student but she never discussed Boas' influence upon her interest in nonverbal communication or the use of cameras as research tools. The only evidence we have is the fact that Mead and Bateson did make extensive use of the camera in Bali. "When we planned our field work, we decided that we would make extensive use of movie film and stills." (Mead 1972:234) While in the field Mead wrote to Boas on March 29, 1938 and said, "When I said I was going to Bali, you said: 'If I were going to Bali I would study gesture' " (Mead 1977:212). However, by the time Mead and Bateson returned from the field Boas was not able to see or discuss their work with them. "As to his (that is, Boas) reaction to our Balinese films. I don't think he ever saw any. He died before *Balinese Character* was published and during those last years, the war and his

frailness interfered with many contacts." (Mead, personal communication) Whether Mead, Efron, and Boas ever spent time discussing their mutual interests is unknown. But clearly Columbia University was a place where these ideas about using cameras to study behavior were circulating.

Efron employed the painter Stuyvesant Van Veen to make sketches of people engaged in public social interaction. He was to make quick sketches of the characteristic gestures they used. Van Veen became quite involved in the work and began to talk to the people he sketched and ended up as a data source for Efron (Van Veen, personal communication). I believe Efron and Boas were among the few anthropologists who recognized that artists are trained observers also and that they have some significant insights into human behavior.

During the period when Van Veen was working with Efron, Boas, who had originally found Van Veen for Efron, asked him to make some drawings from the Kwakiutl dance footage. Someone selected a series of frames from the footage and had them enlarged into prints. Van Veen no longer remembers who selected the frames and why Boas wanted him to make the drawings. Van Veen then blanked out the background in each frame (usually there were at least two sequential frames made into enlargements). He roughed out the features and costumes of the dancer. Van Veen then produced a drawing which was a generalization based upon the sketches. The finished drawing was of a Kwakintl dancer in traditional costume with no background.

Why did Boas want these drawings? Van Veen (personal communication) does not remember why Boas asked him to make these drawings. The only possible clue is a sketch apparently produced by some artist other than Van Veen that was found with these drawings. It resembles a preliminary sketch for a museum display. There is a rectangular shape that is undoubtedly a movie screen and above it the words THE MOVIE OF MAN'S MOTOR HABITS. On either side of the screen are drawings of people with labels such as Eastern European Jew or Italian-American. There was a note attached to all of these drawings which says, "Show this to Efron."



Click on drawing to see it full size
and with an explanation

Efron has no recollections of the drawings or the museum display. "I have no idea what the 'movie of man's motor habits' might be, unless it is a copy of my own films

on the gestural behavior of traditional and assimilated Jews and Italians in New York City which became part of the archives of the Department of Anthropology of Columbia University." (David Efron, personal communication)

There is no question that the drawings around the movie screen are from Efron's study of gesture. Since Efron had used film as one of his data bases, I suggest Boas was planning to construct a museum display showing the cultural basis of gesture, motor habits, and dance. He was planning to use Van Veen's drawings from Efron's study and the Kwakintl dancers. The film footage of the Kwakiutl and Efron's footage would have been organized together for public display. Had Boas completed this display it would have been at the very least controversial considering the public attitude toward minorities at that time.

Boas' interest in body movement and dance comes from a variety of sources. First, he was trying to overcome the prejudice of some scholars that dance and the art of body was not a fit subject for scientific investigation since it was so "emotional" in content (Cf. Polhemus 1975 for an interesting essay of the taboo in science against the body as a medium of expression). He was also fighting against the popular misuse of race as an explanatory device for human social differences. All his life he tried to demonstrate the primacy of culture as a means of understanding social behavior. This interest took on a particular urgency in the 1930s when racism in America and Nazism in Europe were powerful forces.

Boas was a researcher who never tired of trying new methods and techniques. His attempt to use the motion picture camera to generate researchable data on body movement and dance was very advanced for the time. Most field research film projects had failed to produce useable footage and suffered from a poorly designed schema for recording. Boas knew what he wanted. His technical naivet_ prevented him from realizing his goals. However, had he lived long enough to work with the filmed data and been able to discuss the problems and promises of this technology- for the study of human behavior, the development of the study of body movement and visual anthropology would have undoubtedly had a different history.

1 This essay is the result of my examination of some of Boas ' work for use in a film portrait of Franz Boas produced by Ted Timreck for Michael Ambrosino's Public Television series, *Odyssey*. The essay represents an attempt to further my own understanding of the origins of visual anthropology and is one of a series of projected essays on this subject (one on Robert Flaherty, 1980, is complete and one on Mead and Bateson is in process). An expanded version of this paper is in process. It will include a discussion of Boas' work of still photography. I welcome any comments and criticisms.

This essay was made possible because many people were generous with their time and knowledge. I wish to especially thank and acknowledge: David EN on, Joanna

REFERENCES

- Boas, Franz. On Certain Songs and Dances of the Kwakiutl of British *Columbia*. *Journal of American Folklore*, 1:49-64, 1888.
- Boas, Franz. The Social Organization and Secret Societies of the Kwakintl Indians. Report of the U.S. National Museum for 1895: 311-738, 1897.*
- Boas, Franz. Primitive Art. Dover Publications, N.Y., 1927 (1955). Boas, Franz. "Dance and Music in the Life of the Northwest Coast Indians of North America (Kwakiutl). " in The Function of Dance in Human Society, Franziska Boas, Editor. Dance Horizons, N.Y., 1944.*
- Brigard, Emilie Rahman de. History of Ethnographic Film. Unpublished Masters Thesis, UCLA.
- Efron, David. *Gesture and Environment*. King's Crown Press, N.Y., 1941.
- Hanna, Judith Lynne. Movements Toward Understanding Humans Through the Anthropological Study of Dance. *Current Anthropology* 20:313-339, 1979.
- Herskovits, Melville. *Franz Boas. The Science of Man in the Making*. Scribners, N.Y. 1953.
- Laban, R. *Choreographic*. Jena: Eugen Diederichs, 1926.
- Mead, Margaret (Ed.). *An Anthropologist at Work. Writings of Ruth Benedict*. Houghton Mifflin, Boston, 1959.
- Mead, Margaret. *Letters From the Field 1925-1975*. Harper and Row, N.Y., 1977.
- Polhemus, Ted., Social Bodies. in *The Body as a Medium of Expression*, Jonathan Benthall and Ted Polhemus, editors. E.P.Dutton, N.Y., 1975.
- Rohner, Ronald (Ed.) *The Ethnography of Franz Boas. Letters and Diaries of Franz Boas Written on the Northwest Coast from 1886 to 1931*. University of Chicago Press, 1969.
- Ruby, Jay. "The Aggie Must Come First": The Demystification of Robert Flaherty.

To appear in a catalog of Flaherty's Arctic Photographs, Vancouver Art Gallery, 1980.

Stocking, George. *The Shaping of American Anthropology, 1883-1911: A Franz Boas Reader*. Basic Books, N.Y. 1974.

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