Franz Boas and Anthropology in the Age of Technical Media

Ute Holl

ABSTRACT

For Franz Boas, the art of describing cultures exceeds the mere surveillance of people’s behavior as visual phenomena. Instead, all anthropological research requires a constant reflection of possible rules inherent not only in the cultures observed but also in the observers’ cultural techniques. Technical media, which Boas took into the field from his first excursions onward—photography, wax cylinder phonography, and cinematography—not only record or transmit information, but have to be considered as a fundamental reorganization of perception and a redistribution of the senses. These processes of transformation concern the culturally formed bodies of researchers and informants, as well as mutual transformations between cultures. Boas’s approach, which fundamentally criticizes classification and universalism in anthropology, is thus based on that kind of critical reflection that aesthetics conceives of as culturally formed perception. Boas’s use of media, my essay argues, discovers a third space of mutual transference between media techniques and ritualistic forms. The article takes its cue from Boas performing for a diorama series, personifying a figure that, in a critical moment, escapes the cannibalistic spirit Baxbaxalanuxswae. In following this figure through a series of media transformations, anthropology is, according to Boas, conceived of as a permanent negotiation of values and power relations. The specific virtue of technical media is to integrate bodies and the senses as archives of singular historical and cultural experiences.

1 Exhibiting Cultures

In a remote corridor of the Athens National Museum for Contemporary Art, EMST, a series of small photos was nailed to the wall during the documenta 14 exhibition in 2017, the first of which showed a man in sturdy long underpants, cowering on some black platform in a pose indicating readiness to jump from a sort of circle or hoop on his back (see fig. 1).\(^1\) His arms, extended in almost geometrical angles, exceed the frame of the photograph a little, marking the invisible off. There is a stick entering the frame which the protagonist might be holding in his invisible right hand. His face, looking slightly upwards, is distorted into a fierce shout. It is not a scream. There is no fear in this expression. The protagonist obviously knows that he is the figure of threat and power in this image. Evidently, something is transmitted between this protagonist and his unknown spectators, but it is not altogether clear what it is, who the protagonist and what the frame of reference might be and what viewers could make of this in terms of cultures, art, and images of man.

---

\(^1\) I would like to thank Marinus Börlin for his skills and patience in helping to provide copies of images and photographs accompanying this text.
On first sight, and in the context of a European art festival, this figure seems a counterpoint to Leonardo da Vinci’s drawing of the ideal proportions of man according to the architect Vitruvius and classic antiquity: *Le proporzoni del corpo umano secondo Vitruvio* (see fig. 2). In da Vinci’s emblematic sketch, the human figure, drawn as explicitly male, European, and representing ruling dynasties of Roman or Renaissance societies in their martial and moral superiority, is extended between the ideal mathematical proportions of circle and square. From antiquity, this figure has been conceived of as the basic source and measure not only for architectural constructions, but also for social and cultural relations and design artifacts in general. In his imperturbable facial expression, Vitruvius’s well-proportioned man seems to guarantee balance in a well-calculated and calculable world. The mustached protagonist of the small photograph in question, however, is challenging this assumption, together with any simplistic ontology of being in an ordered world. His photo seems to remind viewers of the fact that everybody has to enter the world, or any social or theatrical scene, in summoning all physical and psychic forces possible. Man here seems to be unable to fit into ideal measurements of geometrical scale, instead transgressing any intended, normative or standardized form.

The photograph, selected by the documenta’s curators as a contribution to the controversial debate on the embodiment of race (see Hopkins), is in fact taken from a longer series. In a similar shot, the protagonist is shown in the same posture, on the same pedestal, his arms equally spread, but slightly more downwards (see fig. 3). Here, he is dressed in suit and bow tie, looking up as if toward an observer from beyond the frame. Other photographs show this same movement but
shot from the side, now clearly demonstrating that the person in the frame, again posing half-naked, is actually crouching through a symbolic loop-hole and as if emerging from some kind of birth channel. On other photos, the man is seen in fixed gestures, standing or kneeling, sometimes covered with a blanket, grasping a stick or baton as if in a fight, or, in yet other shots, holding a round object into the air, or pointing toward something in the off-screen space. Obviously, these pictures call for translation.

Otis Tufton Mason, distinguished ethnographer, author of a straightforward list of standards to control the collection of data on indigenous peoples, the Ethnologic Ethnological Directions Relative to the Indian Tribes of the United States, and since 1884 curator of ethnology at the United States National Museum, found them in the Museum’s archive in 1903. Just about to destroy the negatives, Mason wrote to Franz Boas, whom he had recognized as the man depicted in the frame, “a distinguished ethnologist in New York, posing in various attitudes to represent a cannibal eating up an Indian child with measles,” offering to send him the original glass plates since Boas might “not like to be thus perpetuated in the National Museum” (qtd. in Hinsely and Holm 306). Mason and Boas were in fact old antagonists, both early ethnographers and both concerned with the issue of order in anthropology. In an article published already in 1887 in the prestigious journal Science, Boas had strongly attacked Mason’s principles of ethnological classification, insisting that “civilization is not something absolute, [… ] it is relative, and […] our ideas and conceptions are true only in so far as our civilization goes” (Boas, “Occurrence” 66). Challenging Mason’s deductive concept of organizing artifacts in a museum according to a supposedly linear evolution represented by the technical objects of a culture, Boas maintained that the same artifacts and all seemingly similar phenomena could have completely different origins, histories,
and meanings in different cultures: “The outward appearance of two phenomena may be identical, yet their immanent qualities may be altogether different: therefore arguments from analogies of the outward appearance, such as shown in professor Mason’s collection, are deceptive” (66). In a very Kantian move, he advised his adversary to distinguish between appearance and judgement in the exploration of anthropological artifacts.

According to Boas, artifacts could never represent a level of cultural development on a universal scale. In view of this dispute, Mason’s allusions in his letter turn out to be even more scornful. In imposing the notion of “measles” onto the images, for instance Mason suggests that the advent of the ethnographer in the field is associated with an epidemic, spreading the germ of civilization while collecting evidence of indigenous cultures. In this respect, he took his findings in the photographic archive of the American Museum as an opportunity to return Boas’s criticism in the earlier essay: The outward appearance of the man on the photo of the Museum’s archive might itself be deceptive! Thus, the question of representation at large was at stake, threatened by the concept of producing science through technical imaging.

Mason’s own instructions on how to collect data in the field, Ethnological Directions Relative to the Indian Tribes of the United States, establish a meticulous order for a national archive of the indigenous, “the aborigines of America, including the tribes now in existence, and those which are nearly or quite extinct” (Mason 3). With Mason, the discourse of anthropology as archival salvation of vanishing cultures becomes manifest. Mason not only provides exhaustive lists which prescribe the organization and description of artifacts and instruments, games and crafts, cultural techniques and material cultures, as well as descriptions of art, behavior, and ceremonies of “the Indians” to the benefit of the United States in general. He also introduces immaterial forms of ethnological enquiries into the domestic and public lives of people, always warning against the dangers of an emotional entanglement of the researcher into the culture he is studying. The photographs found at the National Museum then—this is the second allusion in Mason’s letter—convey that Boas had actually crossed that boundary in becoming attached to the culture he studied. In the effort to, as Mason ironically observes, “expel this [cannibalistic] creature or to destroy him, hence the marvelous gesticulations” (Hinsely and Holm 307), the ethnographer in disguise has turned into an object of the photographic archive, into an artifact of the National Museum, instead of remaining a curator of cultures.

While Boas’s answer to Mason’s letter is unknown, the photographs survived. They were first published in 1976, accompanying an article in the American Anthropologist on Boas’s conceptual work for the National Museum (see Hinsely and Holm). Reconstructing the circumstances and origin of the series, the authors of the essay explain that it was shot in preparation of a life-size diorama for the Museum, representing a Hamatsa ceremony of the tribe of the Kwakiutl, then called Kwakwaka’wakw, of the Northwest Coast of America. The man popping out of the hoop (Boas) is a stand-in for the figure of a “wild Hamat’sa dancer” in a specific ritualistic moment in which this figure jumps out of the mouth of the cannibal spirit Baxbakwanuksiwe” (Hopkins 36)—sometimes spelled
BaxbakualanuXsI’wae—from the space called ma’wil, the spirit’s bedroom or dwelling, separated from the world through a virtual screen. The diorama simulating that scene was later built and exhibited in the National Museum (cf. Boas, *Social Organization* 446; Hinsley and Holm 307). However, the impact of the ethnographer’s modeling with his own body exceeds the practical purpose. While he is seemingly just representing the transition from a supernatural realm into the social sphere, as enacted in the ceremony of the Kwakwaka’wakw, he is also embodying another form of transition: one of the human body into the logics of technical media. With photography, the hidden and interior soul of eighteenth-century anthropology surfaces as a hermeneutic landscape of visible semiotics of the physical body. Intentionally or not, Boas embodies this transformation, turning the seemingly simple photographs into an intricate entanglement of different cultural layers and once more short-circuiting trance mediums and new media (see Behrend, Dreschke, and Zilliger). This is promoted through ontological operations processed by technical media themselves.

### 2 Mediating Particulars

Unlike classical art forms such as drawings, engravings, literature, or composition, which inevitably represent universals, either individual or generalized, analog technical media only record, process, and transmit particular singularities (see Kittler). Through photography—as well as through the inscriptions of phonography and cinematography—bodies are recorded in their singular marks, spots, and scars, as well as in the particular environment of a specific moment. As opposed to written speech, recorded voices always also conserve the specific details of the speaking body and its specific formation of distinguishable frequencies. As opposed to the general physiognomy pictured in the drawings accompanying the works of Charles le Brun or Johann Caspar Lavater, representing generalized types, the traces on a photograph record singular details of a real body that escape all symbolic order. Technical media as recording devices for physical appearances and movements capture the intended as well as the unintended. Photographs cannot depict mythological figures without also reproducing the physical reality of the dancer or actor who actually embodies them. Thus, photographs of a ceremony or ritual never just represent gods or supernatural powers but give evidence of the particular bodies involved. The reverse holds true, too: the logics of the divine prove to be insolubly connected to media procedures, old or new, esoteric or technical, as operations of light and sound devices, indispensable to all religious procedures.

Technical recording devices automatically capture the arbitrary and contingent. Whether he was aware of this or not, this is what Boas exposed himself to when he decided to pose for the photographs as a Hamatsa dancer. Standing in for a dioramic scene representing an intricate social transformation in Hamatsa society, Boas does not just represent the universal idea of a contact with the supernatural. He also leaves a record of the man Boas himself: his physical reality, specific age, and bodily constitution in the year 1894; his costume and its doffing;
the sheer existence of an ethnologist, obviously well known by 1903, and thus capable of losing his reputation, as Mason’s letter maliciously suggests.

Since technical recording systems do not condense the singular phenomenon into the general and universal, the introduction of technical media into the ethnographic field in the 1880s initiated a fundamental epistemological shift. It is here that a media-theoretical notion of aesthetics as a fundamental reorganization of the relation between the senses, perception, and human understanding comes into play. Eighteenth-century philosophy between Alexander Gottlieb Baumgarten’s *Aesthetica* of 1750 and Immanuel Kant’s *Critique of Judgement* of 1790 systematically unfolded aesthetics as a philosophical mode of self-reflection, grounding modern subjectivity in insisting on the irremediable gap between the transcendental subject and an empirical notion of “man” or human being (see Menke). Michel Foucault has termed this the empirico-transcendental condition of man in eighteenth-century anthropology (cf. 321). However, under the conditions of technical media, aesthetics has been deprived of transcendental forces. Technical media retain only the empirical and singular aspects of men and women in their manifold plurality. Hence contemporary cultural theory’s concept of subjectivity as organized by visible markers of the social, for instance, race, class, and gender. At the same time, as Jacques Lacan has argued in his mirror-stage essay, the modern subjects of technical media depend on the forces of the imaginary, provided specifically by visual media, to form a coherent, even if virtual or artificial perception of the self. In terms of colonizing subjects, the adaptation into the social orders of a colonizing power now appear as magical powers of media channels. In determining forms of identity formation with technical media such as film or the gramophone, colonial rule relies not only on brute force but also on the aesthetic forces of the imaginary.

With the advent of technical media as recording devices in anthropology, people were no longer only represented in a “discipline of words” (see Mead), conceptualized in technical terms from field notes and notations, but they entered the visible frame as actual and singular bodies, physiognomies and anatomies, with all specific characteristics of their historical, mundane lives. Precise distinctions between the mundane and the ritualistic, the impacts of personal biographies over and against cultural conventions are, of course, difficult to trace. Any portrait of Boas himself, his face marked with scars of duels, which were sometimes interpreted as results of rituals in nationalistic German student associations, sometimes as the result of anti-Semitic attacks, show that the traces of a photographic portrait have to be deciphered individually, considering specific cultural, historical, and biographical moments (cf. Hyatt 5). Technical media convey information through marks and traces of difference, of the deviant and the divergent, not through generalization or identity. In this, they match Boas’s anthropological methods.

There have, of course, always existed forms of photography that tried to stage the universal, specifically in regard to indigenous peoples. A good example is the photography by Boas’s other adversary, the photographer Edward S. Curtis, who in his twenty-volume *The North American Indian* distilled the look of the ideal and authentic native. The typical Indian so “authenticated” probably never ex-
Franz Boas and Anthropology in the Age of Technical Media

Boas developed a form of writing that relied on several layers of documentation, from the classic technique of the journal to a variety of new media formats. The scene of the Hamatsa dancer emerging out of the mouth of the cannibal spirit, crossing the threshold of the supernatural, is a good example of this procedure. Boas had witnessed it several times in his career: repeatedly as a performance, that is, a reenactment of the ceremony performed by a group of Hamatsa dancers at the World’s Columbian Exposition in Chicago in 1893, where he worked as chief assistant to the head of its department of ethnology and archaeology, Frederick Ward Putnam. On his 1894 excursion to the Northwest Coast, in Fort Rupert, Boas had experienced the same ceremony for the first time in situ, in the home of acquaintances, when he was participating in a feast and ceremony given by David Hunt, the son of his longtime informant George Hunt (cf. Rohner 180-81). David had in fact been one of the Chicago dancers of 1893. From the immediate accounts of these events in his letters and diaries, Boas later distilled the meticulous descriptions of Kwakwaka’wakw life for his report *The Social Organization and the Secret Societies of the Kwakiutl Indians*. Published in 1897, this volume is abundantly illustrated with photographs and engravings of artifacts and people, images taken from a variety of sources: rock carvings, sketches, and casts made by the author, and photographic materials. Engravings here prove to be a sort of reuniversalization of the photographic sources, erasing and neutralizing the singular and personal aspects of the photos from the field. In all cases, Boas takes care to expose the different media histories of the pictorial phenomena.

In his book on the social organization of the Kwakwaka’wakw, Boas deploys classical and technical media alike, proposing different forms of narration of the encounter with BaxbakualanuXsI’wae and the Hamatsa dancer. We can list the many intermedial transformations. First, in explaining the clan’s spirits and legends, Boas uses the form of a direct account, writing down what he had heard with the help of informants and translators according to a list of transcriptions (cf. Boas, *Social Organization* 316). He later reflected on the difficulty of listening and understanding in the liminal space between similar-sounding languages and cultures in his article “On Alternating Sounds” (1889). Hearing then turns out to be a cultural technique of transpositions rather than a biological capacity. Songs

2 The Swiss printmaker, etcher, and painter Karl Bodmer played a similarly influential role in creating popular images of “the Indian” in Europe (see Isernhagen et al.).
connected to the ritual are reproduced in words as well as in musical notation (cf. *Social Organization* 412). Already during the World’s Columbian Exposition of 1893, Boas had recorded ritual singing on a phonograph’s wax cylinder. He would continue to record sounds, songs, and speeches to replay them to singers in order to identify differences in the execution of language. The phonograph’s recordings are not considered more reliable than the written transcripts; instead, they allow for a comparison of different perceptual impressions: “Assisted by the musicologist John C. Fillmore, Boas transcribed the melodies by ear, while Fillmore worked the machine and made his own transcriptions. With these multiple controls, Boas hoped to be able to evaluate the accuracy of his ethnographic record” (Jacknis 45). Instead of taking this media-generated data from the field as evidence, the epistemic procedure was to produce and consider difference: “Boas and Fillmore were troubled by the machine’s verisimilitude” (45). While many of Boas’s followers would cherish technical media in the field for their assumed incorruptibility in reproducing phenomena (see Mead), Boas underlined the fact that knowledge depends on consciously relating data as phenomena to their media- and culture-related frames of reference. Boas himself never intended a positivistic reading of photography, phonography, or, for that matter, cinematography.

Boas’s academic writing is also characterized by a multiplicity of narrative voices. In his book on the social organization of the Northwest Coast people, he relates their legends in direct accounts: “BaxbakualanuXsi’wae danced, […] looking upward while he was dancing” (*Social Organization* 379); sometimes commenting in the first person: “I will give still another legend of an initiation by BaxbakualanuXsi’wae” (403); occasionally connecting the legend to specific environmental features such as rock carvings—“in memory of this event a face representing BaxbakualanuXsi’wae was carved in the rock on the beach at the place where the slave had been eaten” (439)—and sometimes adding structural layers to his accounts, referring for instance to the epidemic character of the spirit possession, an infectious spreading of cannibalism which Mason notoriously belittles as measles in his letter to Boas: “BaxbakualanuXsi’wae, as stated above, initiates several dancers, the most important of which is the ha’mats’a, or the cannibal. He is possessed of the violent desire of eating men” (437). Finally, Boas describes the mythological narration in the frame of its performance during the winter ceremonies. This detailed description corresponds exactly to the postures and gestures in the photographs of Boas himself, posing for the diorama.

The first dance represents [the ha’mats’a] as looking for human flesh to eat. He dances in a squatting position, his arms extended sideways and trembling violently [fig. 4, see below]. He first extends them to the right, then to the left, changing at the same time the position of the feet so that when extending his arms to the left he rests on his left foot and the right foot is extended backward; when extending his arms to the right, he rests on his right foot and the left foot is extended backward. Thus he moves on slowly with long steps. His head is lifted up, as though he was looking for a body that was being held high up in front of him. His eyes are wide open, his lips pushed forward, and from time to time he utters his terrible cry, hap. (Boas, *Social Organization* 443)

The body of the distinguished ethnologist in New York turns out to be a physical archive assembling the information of legends, written accounts, and different
forms of photographic images, notated rhythms, and sounds. In referring to an engraved sketch depicting a dancer in traditional costume, Boas includes the image of an abstract and generalized figure. But he also adds the reproduction of a photograph, a picture created by David Hunt (see fig. 5). This photogravure, produced according to a photo-mechanic printing technique, is actually a detail from a much wider shot taken by photographer John H. Grabill during the performances at the World's Columbian Exposition. Together with the realistic and contingent background showing the exposition grounds, the seven other performers in the original shot, seated around the dancing Hunt, were erased. Thus, the print manages to focus on the isolated and formalized ideal gesture of the dancer (cf. Jacknis 38). But as opposed to fig. 4, an engraving after a sketch possibly made by Boas himself, the photographed figure of Hunt carries the particular traces of a personal Northwest Coast life of the nineteenth century. He is wearing an industrially tailored shirt as well as an ornate blanket important to the Kwakwaka’wak culture and economy. These blankets, often photographed by Boas, were industrial products that formed the universal equivalent of currency used in the Kwakwaka’wak exchange system known as potlatch.

Reproducibility enters the ethnographic field in many shapes and forms (cf. Joseph 157). While the technical recording media of the 1880s—photography, phonography, and eventually cinematography—promised to overcome written
DANCE OF THE Ha'mats'a.

The peculiar head and neck ring of the dancer were obtained from the Tlingit, his grandmother being of the Tongass tribe.

From a photograph.
translations of behavior in favor of more authentic recording devices (see Mead),
Boas in his methodological procedures intentionally exposes the difficulties of
technical recording systems. From the beginning, he does not disclaim the fact
that the world of technical media is a world of errors, slips, and glitches. He does
not conceal clumsy photo-technical constructions such as linen sheets stretched
behind the protagonists to produce light and to provide an even background (cf.
Jacknis 17). But the epistemological ambivalence of photography is not just due to
an insufficient or malfunctioning apparatus. Technical media record and transmit
indiscriminately, in other words, too well. This was the experience Boas shared
with his colleague from musicology: “Fillmore firmly believed that the recorder
often caught ‘errors’ in the song—tones that the singer produced but did not in-
tend to sing” (Jacknis 45). Technical media record those phenomena which can
be made sense of—for instance, words and lines of songs—as well as phenomena
that are unintended and convey nothing but the physical presence of bodies in
their emotional glitches and performances in all their errors and mistakes. That
these disturbing effects could make sense after all was exactly the hypothesis that
Boas’s Viennese contemporary, the medical doctor Sigmund Freud, proposed as
he was experimenting with the language of physical symptoms as cultural dis-
turbances just as Boas travelled to the Northwest Coast. To the avant-garde of
nineteenth-century scientists, to ethnologists, and to psychologists and psychiatric
doctors, it was clear that technical media were rapidly dissolving the old symbolic
orders of words, numbers, and icons in favor of a confusion of traces, bodies, and
things. Even the distinctions between objects, animals, and human beings were
blurred in the sonic or visual traces on technical recording devices (see Peters).
In an uncanny way, the magic worlds of supernatural relations returned in the
items and totems of technical worlds. But it also became evident that any culture
exists exactly and solely through the empirical, contingent, and erring bodies of
speakers, singers, and dancers who deliver the many individual variations in per-
formance that all cultural coherence is composed of. Identity, then, is based on
the precise perception of difference.

3 Archiving Bodies

The double impact of technical media—that they, on the one hand, convey
the singular and particular of all phenomena, and, on the other, provide the
foundations for an altogether new epistemological order of the visible and the
audible—has determined the methodological debates in many disciplines since
the 1880s. The problem of legitimizing insight and understanding through vi-
sual and aural perception was no longer just an issue of unreliable sense organs.
While aesthetics as a practice of critical judgement of phenomena in Baumgar-
ten’s and Kant’s sense had vindicated the cognitive faculty of sense perception,
aesthetics after the 1880s, in the scientific discourses of Hermann von Helm-
holtz and Ernst Mach as well as in the philosophical considerations of Henri
Bergson or John Dewey, was conceived of as an aesthetic critique of experience.
Only reluctantly though, in the writing of philosophies of technique, does this
self-reflexive movement of thought include the issue of historical or technical modes and preconditions of seeing and listening. Instead, academic research, when dealing with visual data, fell back on frameworks of aesthetic experience rather than analyzing the fundamental changes in sensory perception that are caused by technical transformations. But not only the technical production of data was a challenge to scientists. Their classifications exceeded familiar academic orders, among them the system of classification provided by Mason. What remained pivotal in these discussions is the problem of how to conceive of an archive beyond symbolic orders, an archive of technical images and sounds (see Ernst, Heidenreich, and Holl).

Photography and chrono-photography and other precursors of cinematographic recording systems of the nineteenth century were developed in various contexts of anthropological research. Photography as a medium of translation between bodily movements and notations of various kinds was developed in the field of ergonomics, in military research but also in the research concerning diseases supposed to be caused by the nervous system; chrono-photographic series—famously deployed by the physiologist Étienne-Jules Marey in the name of the French war ministry to improve soldiers’ performances—were one possible mode to suspend, visualize, and study the volatile logics of movement (see Braun). In clinical surveys, chrono-photography was used to detect and amplify even the most inconspicuous tremblings of psychic disorders, so that their involuntary movements could be captured in reproduction, applied to construct coherent clinical pictures, and used to educate the clinical gaze. The most prominent example here is the work of photographer Albert Londe at the Paris Salpêtrière, where he provided the technical and inventive genius for the psychiatric experiments of Jean-Martin Charcot (see Didi-Huberman). The procedures at the Salpêtrière are abundantly described because they delineate the primal scene of new forms of visibility in neurology and psychiatry and thus a new conception of the entanglement of *physis* and *psyche* under conditions of technical media. These procedures also included chrono-photography and early filming of people according to nations and “tribes.” The history of photography, as in the images analyzing the movements of an Arab rider and his horse (see fig. 6), reveals the close entanglement of scientific reasoning and artistic imagination (see Holl, *Cinema*).

![Arab Horse Gallop](image)

As a scholar at traditional German universities in Heidelberg, Bonn, and Kiel, Boas learned the craft of technical drawing—which was a necessity in the disciplines of physics, geology, and geography that he was trained in—to give evidence of his research, as was the rule in nineteenth-century academic publications. Just before he left for his first expedition to Baffinland, between October 1882 and May 1883, Boas took a photography course in Berlin with the photochemist Hermann W. Vogel. A passionate photographer, Vogel had been the director of the Berlin-based Verein zur Förderung der Photographie since 1869. Another famous student of his who was probably in the same 1882 classes was the American Alfred Stieglitz (cf. Jacknis 54n6). Newly acquainted with the avant-garde of photographic knowledge and art, Boas took occasional photos on his first Baffinland Expedition of 1883-1884 without inserting them into his research report. This is particularly unfortunate because today the region is a wasteland of iron and zinc ore mining. Rather than applying photography as an instrument for documentation, Boas used photos he had taken of specimen in the Berlin Museum of Ethnology for a method he called “photo-elicitation” (cf. Jacknis 5). Photography in this case was used as a mnemotechnical tool, intended to trigger people’s memories to identify objects, ownership or the function of specific masks and artifacts. The method failed, however, since “knowledge of masks was localized to the tribe and family that had created them” (Jacknis 5). Just as with the knowledge of photography itself, then, the knowledge of Northwest Coast cultures proved to be singular, specific, and particular.

On his later trips, Boas added photography to his other tools and devices for physical, cartographic, and anthropometric measurements (cf. Jacknis 5; Joseph 170). He chose to work with professional photographers in the field, the most famous one being an acquaintance from Victoria, Oregon Columbus Hastings, who specialized in studio portraiture and was experienced in expedition photography (he had accompanied Israel Powell, commissioner of Indian Affairs, to British Columbia in 1879). Boas first mentions Hastings in his diary entry for June 16, 1888 as the person who introduced him to the “place where there are Indian skulls” (Rohner 89). While Boas did not like this part of his research—“a most unpleasant work to steal bones from a grave, but what is the use, someone has to do it” (Rohner 89)—it was one of the rare possibilities to make money from his work (cf. Hyatt 24). Importantly, Boas systematically tried to capture evidence with various means and media to be able to compare his results of “live” phrenology and skull measurements with interviews and photographs taken. In his diaries he describes his efforts with all frankness: “So I measured and described the skulls that I had stolen and made arrangements with my photographer friend to return to the graveyard in order to obtain one or two additional skeletons” (Rohner 90). Boas’s unscrupulous and systematic research connects phrenology, linguistics, and anthropometry, in other words, the physical body, language, and images as elements in a larger semiotic topology of culture. Tattoos notably formed an interface of all three: “Yesterday and the day before I spent a profitable time talking to a Haida. I also had him photographed because of his handsome tattooing” (Rohner 89).

Apart from using photography as a means of documentation and to compensate for its singular structure, Boas followed the strategies of his time in trying
to submit photography to the statistical paradigm of knowledge production. The joint forces of photography and phrenology in raising large amounts of sociological data had become famous in the United States with Marmaduke Sampson’s groundbreaking study *Rationale of Crime* (1846). This was based on the joint venture of the well-known reformer and feminist Eliza Farnham, matron of the women’s ward at Sing Sing Correctional Facilities, and the famous Civil War photographer Mathew Brady. The large sets of “physical type portraits,” that is, standardized sets of photographs from front and side of inmates of two New York prisons, allowed for a first comprehensive statistical evaluation of photographic data in terms of “biotypes” (Sekula 14-15). Boas seems to have remembered this “big data” approach, as he immediately paid a visit to the correctional institution of Victoria. Rather disrespectfully, he notes in his diary,

This morning I went to the prison and got permission to drag the Indians to the photographer. It may be that my anthropological [anthropometric] observations will turn out to be the most valuable results of my trip. I am very glad about this. I now have photographs of three men, two Haida and one man from west Vancouver, the last a splendid fellow. I am having them all photographed nude to the waist. Since I also have the measurements, the photographs are very valuable. (Rohner 90)

Boas’s diaries reveal, however, that he never really processed many photos. Together with his photographer, he seems to have looked out for the particularly beautiful rather than the great numbers necessary for statistically valid collections. “I discovered a photographer as I was wandering about in the evening. He had come from Victoria to photograph all the sawmills and salmon fisheries. I got hold of him right away and had him photograph five beautifully tattooed Haidas. They were in Adamo civil costume [sic], and I had front and back views taken of them” (Rohner 93-94). Technology and desire are intrinsically linked to comply with nineteenth-century aesthetics as relating pleasures and insight (cf. Menke 67-68; Holl, “Desire” 290).

As a theoretically inclined anthropologist, Boas is caught in the ambivalence of two strategies dealing with photographic material. On the one hand, he is benefiting from the indexical aspect of photography, securing particular traces which allow for individuation of people and personalities. On the other hand, he is discussing typical specimens that express the general laws of a culture. These two directions in anthropological photography are in fact represented by the work of two of his contemporaries, Alphonse Bertillon, the “nominalist detective,” and Francis Galton, “the essentialist biometrician” (Sekula 54). Boas was well aware of their work. In his 1893 article “Remarks on the Theory of Anthropometry,” published just before he set sail for the Northwest Coast, he not only pays tribute to the mathematician Adolphe Quetelet and his statistical determination of populations’ characteristics as variations of Gauss’ normal distribution, but also to Galton as an anthropologist and to the “admirable investigations of Mr. Alphonse Bertillon” (Boas, “Remarks” 81). Bertillon, the Director of the Identification Bureau of the Paris Prefecture of Police, together with his brother Jacques, a medical doctor, devised a system of photographic portraiture for an archive serving criminal, forensic, and larger medical and demographic purposes in order to classify the behavior of people. This system of portraiture was supplemented with
extensive anthropometric descriptions of standardized and abbreviated written notes, recorded as keywords signaling specific features on a single file, to be collected, for example, in the administration of penitentiaries:

In prison practice the signaletic notice accompanies every reception and every delivery of a human individuality; this register guards the race of the real, actual presence of the person sought by the administrative or judicial document [...]. The task is always the same: to preserve sufficient record of a personality to be able to identify the present description with one which may be presented at some future time. From this point of view, signalment is the best instrument for the proof of recidivation, which necessarily implies the proof of identity. (Bertillon iii; emphasis in orig.)

The file was the first step of the Bertillonage, exploiting individuality as produced by technical recordings, the second being a statistically based filing system, service d'identification, which allowed policemen and detectives to very quickly search for delinquents according to specific indications—or, in the medical realm, according to visible symptoms. Boas might have seen this filing system with his own eyes, since Bertillon presented it at the 1893 World’s Columbian Exposition. Bertillon’s police archive has been described as the first extensive system of surveillance with a prediction mode, calculating relapse rates, and indeed using both capacities of photography, individuation and the general scanning of a terrain: “We can speak then of a generalized, inclusive archive, a shadow archive that encompasses an entire social terrain while positioning individuals within that terrain” (Sekula 10; emphasis in orig.). People can be read—hence Sekula’s term “hermeneutic paradigm” (10)—through the semiotics of physiognomy and phrenology, which assume that “the surface of the body, and especially face and head, bore the outward signs of inner character” (Sekula 11). This is reinforced by the making of a biotype according to Francis Galton in his method of superimposing series of photographic portraits of certain types, “of different persons, all of whom had been photographed in the same aspect (say full face), and under the same conditions of light and shade (say with the light coming from the right side)” (Galton 6). This method of “composite portraiture” is spelled out in Galton’s 1888 eugenics classic Inquiries into Human Faculty and its Development: “I superimposed the portraits like the successive leaves of a book, so that the features of each portrait lay as exactly as the case admitted, in front of those of the one behind it, eye in front of eye and mouth in front of mouth” (6). Thus, photography is turned into a medium of scripture, transforming its order into a stereotypical one. Galton is quite aware of the fact that he is producing media generated generalizations: “Composite pictures are [...] real generalizations, because they include the whole of the material under consideration” (166).

Criticizing the notion of average distribution achieved through chance operations as the basic error in these measurements, Boas voices doubts about “anthropologists who study the physical characteristics of races us[ing] mostly the method of seriation” (Boas, “Remarks” 78). Accordingly, Boas is not praising Bertillon’s work for its achievements in identifying types or characters—both, incidentally, notions from print culture and therefore universal classifications stemming from what Marshall McLuhan has called “the Gutenberg Galaxy”—but rather for his determination to study exceptions and variations: “A. and J. Bertillon have proved
that [...] deviations occur” (Boas, “Remarks” 78-79). Subsequently, Boas here argues in the same way that he did against Mason’s classification of cultures: The same visible phenomena do not necessarily have the same genealogies. Likewise, in anthropometry, the same visible photography-generated features cannot point to a specific racial genealogy: “Assuming [...] that there were two distinct ancestral types in adjoining districts, and that these types intermingled, we cannot foretell what the distribution of forms among the offspring will be” (Boas, “Remarks” 78-79). In this way, Boas deprives Galton’s racial thinking of its statistical matrix, adding that “[b]esides these biological considerations, we must consider a number of other factors which may cause deviation from the probability curve” (Boas, “Remarks” 80), such as periods of growth or the conditions of the life of a community or the environment.

It is interesting to note that before Boas sets out for measuring expeditions to the Northwest Coast, he is determined to look out for deviations and exceptions and for arguments and means to transform the matrix of anthropometric measurements and predictions. He does of course follow calculations in biometrics—not to determine types and race indicators but rather to figure out the probabilities and chances of change and transition. Analyzing “the notion of future life” (238) of a society, then, does not just provide a twist on Blaise Pascal’s probability or Kant’s existential question, “What may we hope?,” but a fundamental objection against all anthropological discourse of “vanishing races” as established by Mason and maintained by Mead. In the same year, Boas variegates Galton’s Inquiries in a lecture titled “Human Faculty as Determined by Race.” He underlines that views that define civilizations based on the notion of race “are generalizations which either do not sufficiently take into account the social conditions of races, and thus confound cause an effect, or were dictated by scientific or humanitarian bias or by the desire to justify the institution of slavery” (“Human Faculty” 235). The many photographs Boas took in the field as well as the thousands of images taken by his collaborators, among them in particular George Hunt, who contributed thousands of photographs (cf. Joseph 163), are all images that seek the variation, the deviant, and transitory instead of the typical. In that they are always collected or exhibited together with additional, similar, or adjacent documents, measured, written or engraved, these photos resist the logics of the archive as a disciplinary or typological dispositive. Rather, these pictures serve to document specific forms of behavior at the interfaces of heredity, culture, economics, and environment. Boas, then, as Sekula interestingly declares of Stieglitz’s work, “has resisted the archival paradigm” (Sekula 59). The photographic moment, bursting the mundane world with “the dynamite of the tenth of a second” (Benjamin 236), marks not only the analytical explosion that Walter Benjamin pointed out but also the measurement of forces these elements execute on bodies, objects, and landscapes. In choosing the twelve postures to be photographed for a diorama on the Hamatsa ceremony, then, Boas not only determines the pivotal points of the Kwakwaka’wakw ritual in their transitory force, but also subjects himself, physis and psyche, to these forces (see fig. 7). This is not a process of “going native” in Bronislaw Malinowski’s sense, but rather of going media, establishing a contact zone of transition. The cultural is juxtaposed by the personal, specifically because
Franz Boas and Anthropology in the Age of Technical Media

Boas is posing, obviously after some consideration, in drawers and not in western costume. Anthropological research itself, as an exposure to the realm of the others, turns into a quest for transformation: “for the response to foreign stimuli, the knowledge of new ways of acting and thinking are important elements in bringing about cultural change” (Boas, “Some Problems” 260). Since Boas is focusing on microdifferences and on forces in his photographs, it is no wonder then that many of the pictures he chose for his publications seem to be catching people in the process of dancing movements (cf. Boas, *Social Organization* 348-49). Ultimately, then, it was cinematography as an art of recording motion which seemed the right medium to experiment with.

Fig. 7: Plate 7 (“Counting Blankets”, on page 66 [between 348 and 349 in the original]) in Franz Boas, *The Social Organization and the Secret Societies of the Kwakiutl Indians* [microform]. Washington: Government Printing Office, 1895.

4 Interfering

Considering his interest in the dynamics of transition and change in cultures, it is consistent that Boas should take a 16mm motion picture camera on his last field trip to the Kwakwaka’wakw in 1930 (see Ruby). While ethnographic filmmaking evolved with the first motion cameras, it was still the exception in academic research, and few ethnological theories dealt with the study of motion as behavior. It is likely that Boas was inspired to use the camera by his son, the neurologist Ernst Boas, who had come to know cinematography in his clinical training (see
Ruby). As in chronophotography, motion studies were first conducted in clinics. Félix-Louis Regnault, a French physician specializing in pathologies of anatomy, is credited for being one of its foremost pioneers. Together with Étienne-Jules Marey and his colleague Charles Comte, Regnault set up ethnographic series, chronophotography, and short films of African people from Madagascar, Sudan, and of men and women from the Maghreb. He focused on their gaits, “walking, squatting, and climbing” (Rouch 30), using white cloth as backdrop to heighten the photometric contrast in silhouettes and to be able to mark the differences in his systematic tabulations and anatomic grids. Although Regnault was a strong promoter of the impact of environment or milieu in his theoretical approach to peoples and races, he introduced a different aesthetics in his filmic setups, concentrating on the individual in an experimental environment. Focusing on forms of walking, he conceived of the camera as a temporal microscope: “Cinema expands our vision in time as the microscope has expanded it in space” (Regnault 46). Producing sharp contrast was the media-practical clue to legibility and knowledge of movements. Regnault himself never travelled but took his photos, similar to Boas’s beginnings in Chicago, to the Exposition Ethnographique de l’Afrique Occidentale in Paris in 1895 (cf. Rony 32). Jean Rouch, inventor of ethnographic forms of film himself and director of the ethnographic film department at the Musée de l’homme in Paris, described Regnault’s work as exhibits designed for museums, not for clinical studies only. The ambivalent fascination of ethnographic cinema between science and entertainment had been a constant presence ever since Thomas Edison had, in one of the earliest films featuring Native Americans dating back to 1894, invited Sioux dancers from Buffalo Bill’s Wild West Show into the darkness of his Black Maria (see Heise, Edison, and Dickson).

Étienne-Jules Marey, for instance, was concerned with photographic series as variations on his graphic method. He transferred human and animal locomotion into measurable diagrams, sternly objecting to his chronophotographic images being animated or projected (see Braun). Many pioneers of ethnographic cinema followed that track and technically recorded physical movements of indigenous people instead of describing their mores and rituals in words. Another pioneer in visual anthropology, the former zoologist Alfred Cort Haddon, employed still cameras, a gramophone with wax cylinders, and a Lumière camera during his trip to the Torres Straits on occasion of the Cambridge Anthropological Expedition in 1898. As did Curtis and others, he proclaimed the aim to “save vanishing data,” reflecting that he was producing data from cultures subjected to colonial exploitation. Similar to the German physician Augustin Krämer, founder of the Tübingen Institute of Ethnology, Haddon had focused on indigenous forms of dancing and (the most popular subject of ethnographic filmmaking) demonstrations of various cultural techniques: fire making, grinding, weaving, and pottery making. Boas’s films were made very much in the tradition of these earlier films. Apart from the fact that techniques by 1930 were more advanced, especially for the 16mm format, in terms of emulsions, film speed, optics, and mobility, we can describe specific forms of Boas’s filming in order to determine the epistemological trajectories he may have intended. This remains conjectural since Boas himself never edited the material—incidentally a frequent fate in the history of ethnographic film.
The footage Boas shot on his 1930 field trip was first edited in 1961 by Bill Holm of the Washington Burke Museum, who assembled a two-part film distributed as *The Kwakiutl of British Columbia*. As Boas explained during a 1942 seminar organized by his daughter, dance-ethnologist Franziska Boas, these films were to convey the extent to which the culture of the Northwest Coast is rhythmically saturated: “practically every aspect of Kwakiutl life is accompanied by some form of dance, from cradle to the grave” (“Dance and Music” 5). The films specifically transmit this rhythm in their use of a black-and-white aesthetics.

The first part of the film focuses on customary cultural techniques: moving a cradle, wood working, drilling, making a cedar rope, weaving and spinning, etc., but, as can be inferred from the sequences as well as from the transcription of accompanying songs that Boas adds in his 1942 lecture, the filmmaker was specifically searching for the rhythmical aspects in the performance of these crafts. This endeavor marks another shift in his late works: Not only material artifacts but, similar to language, microstructures of performance and behavior became crucial in his studies on the dissemination and integration of cultures.

The angle in Boas’s film shots is remarkable: They are taken from a very low position, slightly lower than the eyeline of the protagonists, in a shot recalling the famous point of view applied by Yasujiro Ozu to directly involve the viewers into the scene. In Boas’s filming, this has the effect that the protagonists include the cameraman as well as the viewers into their work, repeatedly looking at the camera without timidity or irritation. Boas also completely abstains from close-ups, never distinguishing the craft from the craftsman or -woman. In this way, the individuality of the protagonists, dressed in mundane clothes, is maintained at all times, while the dynamic field between cultural technique and individual performance is insistently kept open, as in a musical performance. The comparative aspects of these sequences, serving to convey Boas’s general hypothesis of diffusion of cultural elements, are lost in this unedited version. Boas’s concept of culture as a set of behavioral and ritual negotiations, however, seems to have found its adequate medium of evidence in the filmic material as “illuminating material in regard to the working of the culture, by which I mean the life of the individual as controlled by culture and the effect of the individual upon culture” (Boas, “History and Science” 305).

In the same way, the sequences of games, involving both children and adults playing, observe the relation between individual performances on the one hand and the emerging rules of a game, as viewers have to infer it, on the other. Usually filmed in wide angles, the shots focus on games as social and spatial techniques. Besides taking the environment into account when observing procedures and communication, in these images, rather than preceding the games, space itself is conceived of as something that is produced through the movements of the players as well as of the just slightly moving camera. A specific fabric of a culture as produced “in its setting among neighboring cultures” is observed (Boas, “History and Science” 307), and this seems to include the media cultures arriving on the Northwest Coast. Cultural and media-techniques superimpose, not in a cannibalistic but in a productive way.

In terms of movement, the most interesting sequences are those of dances and ceremonies. Boas was grappling to transform the impression of dances and
dancing into ethnologic terms. “The dance problem is difficult,” he wrote to Ruth Benedict on November 13, 1930. “I hope that the films will give us adequate material for making a real study” (qtd. in Rohner 291). In these shots, the phonograph is sometimes visible, pointing to the project of experimenting with the synchronicity of visual and audible rhythms as they converge in the movements of the dancers’ bodies. It is not the overall system but the differences that are interesting to Boas: “In music there are a number of quite distinct styles; summer songs, mourning songs, love songs, winter songs, but I shall not unravel that problem while here” (qtd. in Rohner 291); in the film he expresses these differences through rhythm and light effects. Boas’s aim was not to find moments of synchronicity between his cinematographic and phonographic recording but to conceive of temporal organization on a wider epistemological scale. As opposed to the eighteenth-century Kantian concept of categories of time and space being inherent to reason and preceding all experience, Boas is one of the first anthropologists who discusses aesthetics as temporal and spatial perception in terms of their evocation through media, distinguishing but not discriminating between ritual and technical media.

To find a specific indigenous concept of synchronicity he differentiates it from its Western understanding:

> 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 [...]. (Boas, qtd. in Ruby 9)

Boas’s radical reflection on concepts of rhythm resists the seductive evidence of technically recorded phenomena. It proves that Boas never ceased to take the cultural techniques of his own culture into account when observing and judging others.

Already the first of the dance performances in the film is another encounter with the cannibal dance, this time incorporated in different environments by three consecutive dancers, two men and then a woman. As in the case of photography, for lack of light, the dance could not be filmed in the ceremonial environment of the house (see fig. 8). Instead, the first cannibal dancer is filmed in the space of a wintry garden. He is dressed in his normal clothes but decorated with a very light and featherlike headdress, which, according to Boas’s description, is of cedar bark covered with eagle down (cf. “Dance and Music” 7). The same material is draped around his hips. This has the effect that the minute vibrating movements of the dance are magnified for the eyes of the viewers—just as, incidentally, Charcot in his Parisian experiments with hysterics had adjusted feathers to their heads to better see the form of their trembling (see Didi-Huberman). The movements are thus increased as to spread over the screen. Boas uses a singular technique here which strangely follows the history of cinematography as a measuring device while simultaneously subverting this logic: Since this first dance is set in front of a lattice fencing, it seems to be performed as if in front of a grid. On the one hand, this recalls the ergonomic measuring techniques of E. J. Marey and E. J. Muybridge (see Braun); on the other, however, the frequencies
of the intermittent intervals of the fence amplify the microrhythms of the dancer’s movements. This classic effect of superimposed frequencies, discovered by Peter Marc Roget as stroboscopic, indeed strengthens the visible rhythm. Boas has not implemented this technique in the shots of the other dances, which are set against more monotonous backgrounds, on a meadow, in a valley against an open sky, or against the darker background of an open stage framed by a scaffolding, probably marking the wooden structure of a tent. In these cases, Boas is obviously trying to benefit from contrast and experimenting with the light reflected on white parts of costumes and headwear. In another instance, he even follows Haddon’s example of dance films in shooting a shaman with extremely fast vibrations of her hands holding cedar branches in front of a forest, as if to experiment with camouflage effects. Obviously, Boas could not have systematically checked and controlled the results of his filmic experiments, since the material was only developed upon his return: “Yesterday I took pictures from eleven to 2 p.m., of all sorts of games which are hard to describe. I hope they turned out right,” he wrote to his children from Fort Rupert on December 14, 1930 (qtd. in Rohner 297). The experiments at hand show, however, that with cinematography, he delved into a new and different layer of cultural phenomena: into the realm of light, sound, and frequencies. How he would have engendered cinematography to systematically focus on the transmission of rhythms and the production of interferences between cultures remains speculation. But he confronts himself and the discipline with the methodological aspect of changing cultures with the means of recording devices and media in general. By 1936 he states that “absolute systems of phenomena as complex as those of culture are impossible. They will always be reflections of our own culture” (Boas, “History and Science” 311), including their basic cultural techniques.

Returning to the photos of Boas himself posing as the cannibal dancer found in the National Museum, Boas can be perceived as placing his own body at the disposal of processes of acculturation and dissemination. Of course, this could simply be considered as a form of cultural appropriation, neglecting cultural differences in favor of a hegemonic Western anthropological knowledge which is institutionalized on its way to the exhibition of cultures in anthropological or natural museums. But Boas’s embodiment of the cannibal dancer could also be con-
ceived of as resistance to all efforts at subjecting cultures to standards, essentialisms, or identity politics. In this sense, the photography of Boas is a fine example of queerness *avant la lettre*. The platform of the National Museum, just as the ethnographic field and, for that matter, the film screen can be considered a contact zone, “a space of imperial encounters, the space in which peoples geographically and historically separated come into contact with each other and establish ongoing relations, usually involving condition of coercion, radical inequality and intractable conflict [...] [foregrounding] interactive and improvisational dimensions of imperial encounters” (Pratt 8). The specific virtue of technical media, then, is to integrate bodies as archives of singular historical and cultural experiences into this process of cultural negotiation, not excluding but exposing the power relations involved, as a cannibal ceremony would. The world here is not perceived of as a predetermined, well-calculated Vitruvian order but as a place of constant cultural struggles, defying all forms of identity as constructed through media, technical or ritualistic. While Boas travelled to the Northwest Coast armed with devices and paraphernalia of technical notational systems of identification, he would eventually place his own body, a living archive of European racial conflict, at the disposal of the negotiations and hostilities that he refused to simply subject to the notions of nation and race.

**Works Cited**


