

*Histories of  
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EDITED BY

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## 2. *The Carnegie Mission and Vision of Science*

### Institutional Contexts of Maya Archaeology and Espionage

*Quetzil E. Castañeda*

In the United States, the major alternative [to Rockefeller funding of anthropology] came from the Carnegie Institution, which was heavily oriented to physical anthropology and archaeology; such general ethnographic work as it sustained was an outgrowth of its interests in Mayan archaeology.

George W. Stocking Jr., *Philanthropoids and Vanishing Cultures*

The war work of the Carnegie Institution covered many fields of activity, from the manufacture of optical glass to military intelligence work, and to it all Dr. Woodward offered the most effective support. He himself was a member of the Naval Consulting Board.

Fred E. Wright, Memorial of Robert Simpson Woodward

When the history of the proceedings of the institution comes to be written there will be a fine chapter of patriotic service to the Government in reference to this matter.

CIW President Robert S. Woodward, Minutes of  
the Meeting of the Board of Trustees

This essay, while not a “fine chapter of patriotic service,” does contribute toward an anthropological history of the Carnegie Institution of Washington (CIW; also known officially as Carnegie Institution or CI). The CIW (also referred to here as “the Carnegie”) was founded, with a deed of \$10 million in steel stock in 1902, as a research institute during the formative period of U.S. science.<sup>1</sup> The CIW participated in the general emergence of a public sphere that was driven by the great philanthropic foundations and initiatives of the first decades of the 20th century. It was part of the emergence of a new governmentality that was to transform citizen and society along the rational lines of scientific knowledge. As a part of its scientific mission, it supported research in many, but not all, areas of science, including archaeology and, eventually, social anthropology. The legacy of the Carnegie also includes, to a great extent, the shaping of both the U.S.

military-industrial complex and the shaping of the contemporary structure of scientific research in the United States. As is well known, CIW president Vannevar Bush orchestrated the collaboration of science, industry, and military during World War II and then forged the development of the National Research Foundation (Bush 1990; Zachary 1999). Less known, however, is that the second CIW president, Robert S. Woodward, had already established institutional precedent for how science and scientists would contribute to the U.S. government during war time.

The wide ranging and profound importance of the CIW in many areas of science and society has motivated many studies that focus on specific aspects and problems in the history of the institution and of some specific sciences. While the results of the CIW support of archaeology is not quite as monumental as the million-dollar observatories and laboratories that the Carnegie built and operates, the Carnegie sponsorship of "pan-scientific" research in Mesoamerica and the Maya world is a fundamental watershed for Americanist anthropology. Despite this indisputable importance, a sustained study of this history of the field in the manner of a "sociology of knowledge" is curiously absent. In part this may have to do precisely with the role of the Carnegie in initiating espionage by scientists, specifically by archaeologists. However, if such a silence might stop some from "digging up the dirt" on archaeology, it also effectively "buries" the intellectual specificity and unique contribution of the Carnegie-sponsored Maya research. For example, Stocking is able, as in the epigraph at the beginning of this essay, to reduce and dismiss the complexity, diversity, and specificity of 44 years of Carnegie Mesoamerican archaeological research (see also Stocking 1992:156-57; Castañeda 2003, n.d.).

The CIW sponsorship of wide-ranging "pan-scientific" research and interdisciplinary "cooperation" is something of a unique and significant, if also relatively short-lived and narrowly focused, experiment in anthropology. Not a school nor a tradition nor a paradigm, the Carnegie anthropological research program was a distinct way of doing anthropology that has since been absorbed into the university-based science and its associated historiography. To recuperate this "minor literature," it is necessary to "excavate" it from the intellectual histories that marginalize and elide the diversity and specificity of this disciplinary modality of anthropology. This essay contributes toward this goal by discussing the institutional basis and modality of this nonuniversity, nonmuseum, non-Rockefeller "anthropology."

This essay does not engage or take any position whatsoever on the ethical issue of anthropologists as spies.<sup>2</sup> I am, however, interested in the institutional contexts in which this infamous moment of anthropological

history occurred: How and why was it possible for archaeologists working for the CIW to become spies? My goal is to provide ethnographic and historical information about the CIW in terms of its institutional structure, history, personnel, activities, ideas, connections, mission, and vision of science so as to address this and related questions that emerge from an anthropological examination of the Carnegie in the first half of the 20th century. Section 1 of this essay provides background on the founding history of the CIW and raises issues of how to approach the subject matter. Section 2 discusses the CIW mission and vision of science. Section 3 is a provisional mapping of the invisible grid of power and affiliation among the CIW trustees. Section 4 inspects the CIW war effort, including espionage, during World War I under President Woodward's leadership. Section 5 concludes with questions for further research.

### Scientific Governmentality in the "Third Space"

The Carnegie Institution of Washington was a unique experiment in the first half of the 20th century. Although other research institutions existed in the public sphere as a nonuniversity and nongovernmental agency, the CIW arguably became the most significant. The dominant understanding of the history of anthropology recognizes a shift from the government-sponsored anthropology housed in museum or state agencies to an anthropology based in the university, which, at this time of the professionalization of sciences, was primarily focused in private institutions. The CIW was thus founded in a "third space" of the public sphere between the governmental agencies of science and the university. Although it is nongovernmental in the sense that it is not a state agency, it is certainly a governmentalist agency in the Foucaultian sense of an institutional form that works in the "public sphere" (see Eley 1994) with the goals of transforming the basis of citizenry, subjectivity, social agency, and national belonging along rational lines of science—specifically through the production, dissemination, and consumption of scientific knowledge. It is noteworthy in this regard that from its founding in 1902 to April 28, 1904, the president of the United States, the president of the Senate, the speaker of the House of Representatives, the secretary of the Smithsonian Institution, and the president of the National Academy of Sciences were ex-officio members of CIW's board of trustees. As one of the few research-focused public "NGOs" *avant la lettre*, the CIW was formally and institutionally separated from government, yet connections existed in myriad ways through the personal positions and networks of the trustees.

Reiterated in the Carnegie's centenary, in-house history is the fact that the CIW is "one of the most important and yet least studied institutions in

the history of American Science” (Trefil and Hazan 2002:239). In the face of the impossible task of writing a comprehensive history, many studies deal with more delimited issues, such as the founding of the institution. One area that has been outlined is the context of and struggles among intellectual leaders—such as George Ellery Hale (astronomer and founder of the National Research Council), Daniel Coit Gilman (ex-president of Johns Hopkins University), Andrew D. White (ex-president of Cornell University), John Shaw Billings (medical doctor, founder of the National Library of Medicine and director of the New York Public Library), James McKean Cattell (Columbia Professor of Psychology and friend of Boas), and Charles D. Walcott (Boas’s grand antagonist at the U.S. Geological Society)—to influence and shape how Andrew Carnegie’s pending philanthropic commitment of \$10 million would be used: the proposal for a national university had strong advocates, but was decisively dismissed by Carnegie himself in favor of a research institute (see Reingold 1979; Lagemann 1989; Madsen 1967, 1969; Trefil and Hazen 2002:21–22). Significantly, once CIW was established as a research institute, its trustees have always pursued a course of institutional independence from the university, government, and business (Trefil and Hazen 2002:83–95). It is on the assumption and reality of this institutional independence that questions about the visible and not so visible interconnections of funding, ideas, research efforts, leadership, and so on become analytically significant and historically valuable as problems to pursue.

Nathan Reingold’s analysis of the intellectual shaping of the CIW agenda is expressly stated in terms of the general absence of nongovernment, nonuniversity research institutes in the early 20th-century United States (1979:314). However, the work by Reingold and others (noted previously) has not been fully exploited as a foundation for the further investigation of a wide range of issues that are raised by contemporary concerns and anthropological approaches. The historical significance of the CIW has yet to be fully explored, for example, in terms of the emergence of a public sphere constituted by a new governmentality that is based in the ideologies, dissemination, and practice of scientific knowledge.<sup>3</sup> The critical histories of the eugenics movement, both in the United States and elsewhere, are important examples and springboards for work along these lines (e.g., Kelves 1985; Stepan 1991; Walsh 2001). Similarly many historical studies of philanthropies only flirt with the topic of the CIW, for example, Ellen C. Lagemann’s (1989) study of the Carnegie Corporation and George W. Stocking’s (1992) discussion of Rockefeller funding of anthropology. In these studies the role of the CIW, while often noted, does not come clearly under investigation as a primary focus. The present essay

contributes institutional background on the CIW for others to pursue further investigation; it also provides an understanding of the context in which both an important anthropological research program and the conduct of military intelligence by anthropologists emerged.

### Science “at the Mouth of the Cave”

The novelty of this experiment of an independent research institute was never lost on the board of trustees, who continually struggled among themselves to define and actualize the CIW mission:

The objects of the Corporation shall be to encourage in the broadest and most liberal manner, *investigation, research and discovery, and the application of knowledge to the improvement of mankind*; and in particular: (a) to conduct, endow, and assist investigation in any department of science, literature, or art, and to this end to cooperate with governments, universities, colleges, technical schools, learned societies, and individuals; (b) To appoint committees of experts to direct special lines of research; (c) To publish and distribute documents; (d) To conduct lectures, hold meetings, and acquire and maintain a library. [Section 2, CIW Articles of Incorporation, Apr. 28, 1904; emphasis added]

This statement leads to a twofold discussion in this section. First, it is necessary to discuss further the vision of science that came to inhabit this mandate. Second, it is necessary to elaborate on the ideal of applying knowledge to the improvement of humankind.

### *Carnegie Visions of Science (the First 50 Years)*

Reingold (1979) charts the trustees' negotiation of Andrew Carnegie's desire to find and support “the exceptional man.” In this struggle, initial Carnegie president Daniel C. Gilman (1902–4; ex-officio trustee 1905–8) was an early victim to a pair of more influential trustees (John Shaw Billings and Charles D. Walcott) who formed a ruling “elite” (Trefil and Hazan 2002:26).<sup>4</sup> As a practical expediency to get off the ground running, the CIW dedicated a significant portion of funds to the Minor Grants program for such “exceptional” researchers who may or may not have been trained as scientists. After initiating more financially sound management and critical appraisal of the results of the minor grant funding of some of the “exceptional men,” President Woodward (1905–20; trustee 1905–24) managed to redirect priorities to the establishment of permanent research departments, laboratories and observatories.<sup>5</sup> The priorit-

zation of departments over the Minor Grants also entailed a rejection of support given to universities, museums, and related research organizations and curtailment of direct funding to people located in such institutions.<sup>6</sup> Under the third president, John Campbell Merriam (1921–38), this initiative was modified in two ways. A version of the minor grants persisted in the promotion of “cooperation in research” and multidisciplinary approaches to problems as the funding base for additional associate researchers in departments and nondepartmental, temporary “investigations” (Bunker 1938). As well, the minor grants continued as the vehicle to provide funding to projects and persons that originated from the Carnegie Corporation of New York.<sup>7</sup> Under President Vannevar Bush (1939–55), the prioritization of departments was extended even further.

The question of the identity of the Carnegie Institution, as evident in trustee discussion of a proposal to change the name to Carnegie Research Institution (Board of Trustees 1913; hereafter BT), reflects more practical issues of the nature of CIW business.<sup>8</sup> Even more than a decade after the founding of the CIW, there was discussion among the trustees whether “investigation” and “research” were to be viewed as synonymous or whether one referred to humanist and the other scientific endeavors. Between the hard-science trustees and those who advocated work in literature and poetry, Robert S. Woodward charted a middle path that placed humanist “study” on a par with scientific “study” in practical-methodological (but not epistemological) terms: in his 1915 report in the *Year Book* (13–14), he expressly rejects the view that science only refers to the “hard” or mathematico-physical, natural sciences; it also includes the social and humanist sciences so long as the “criteria and methods” of science are not excluded from the investigation. In a rather circular manner, he argued that humanist investigation is “research” and research is “scientific,” not only because investigation is synonymous with research, but also because all research is “scientific” or it is not even “research” (BT 1916:666–678). Thus, humanist fields were able to survive the first four decades of the CIW’s history despite the dominant emphasis on “big science” (see Trefil and Hazen 2002:85). Although history (history of science and U.S. history), classical archaeology (the American School in Rome), a department of sociology and economics (run by CIW trustee C. Wright), and limited research in anthropological linguistics were supported in the first decades of the CIW, neither linguistics per se nor anthropology conducted by Boas or his students were ever supported (see Castañeda 2003, n.d.). In the 1940s, however, Vannevar Bush (president 1939–56) eliminated almost all humanist sciences, as well as unproductive/false sciences such as the Eugenics Record Office and sciences that were more productively and

efficiently conducted by other institutions, as in the case of the Nutrition Laboratory.<sup>9</sup> The diverse projects under the Division of Historical Research were reduced to archaeology and “closed.” Although officially closed, a number of the researchers (in archaeology and genetics) continued to receive institutional support and salaries until their retirement; nonetheless, under entering president Haskins, archaeology was given a two-year period to finalize all work in 1956 (see Trefil and Hazen 2002:88; Year Books 1955–58).

### *Governmentality and the Improvement of Mankind*

A persistent issue that especially concerned the trustees of the first decades is the institutional specificity of the CIW, vis-à-vis not only universities but also other Carnegie organizations. Not only has the public been “confused” about the differences between the CIW and the Carnegie Corporation, but some of the trustees have been as well (BT 1913, 1916). At the 1913 meeting of the board of trustees, it was necessary for the chairman of the board to explain to the trustees that there are other Carnegie organizations, each with a separate budget, mandate, and name (however similar). In response, one trustee expressed appreciation for this clarification, especially with regard to the financial and institutional separation of the Carnegie institutes, institutions, corporations, and foundations. Of course, for the small group of trustees who were also the directors or trustees on one or more of these Carnegie organizations, such explanations were not necessary. Nonetheless, there was an apparent need to inform both the public (who requested funds for inappropriate activities) and certain members of the board (who believed Andrew Carnegie or his proxy, the Carnegie Corporation, would endlessly refill the CIW endowment as necessary) about the real nature of an “altruistic” research institute that was independent not only of the government and the private-sector universities but also from the other Carnegie philanthropies and organizations. It is interesting to read Woodward’s complaints (in the *Year Book* reports and in the minutes of the board of trustees throughout the second decade of the 20th century), about the public misconception, or rather lack of knowledge about, “altruistic establishments.” The magnitude of the issue became abundantly clear when, as Woodward discusses, the District of Columbia, the City of Boston, and the State of Arizona sought in different ways to tax the tax-exempt organization of the CIW (BT 1918:743–747). According to Woodward, this was based on ignorance not only of the public but of politicians and lawmakers. These attempts put the novel experiment of a nongovernmental, nonuniversity research institute into historical perspective. Further, they open questions about the history of

**Table 2.1a. Carnegie organizations in the United States**

U.S.-based Carnegie organizations	Year	Established
Carnegie Institute	1895	as a cultural center; became the Carnegie Museums of Pittsburgh with a music hall, museums of art and natural history, a library, and the Carnegie Science Center
Carnegie Technical Schools	1900	as a vocational school (not university); became Carnegie Institute of Technology and later Carnegie Mellon University
Carnegie Institution of Washington	1902	as a scientific research institute; now Carnegie Institution
Carnegie Hero Fund Commission	1904	to recognize heroic acts performed in the United States and Canada
Carnegie Foundation for the Advancement of Teaching	1905	as an education-policy institute from which developed a teacher retirement plan that became TIAA-CREF
Carnegie Endowment for International Peace	1910	as a research and education foundation on international affairs and U.S. foreign policy
Carnegie Corporation of New York	1911	as the only Carnegie institution awarding grants in the area of advancement and diffusion of knowledge

NGOs and nonprofit organizations and their roles in the creation of a public sphere in the United States.

Along these lines, and against apparent ongoing criticism of the CIW, both Woodward and Merriam, in their “President’s Report” in the *Year Book*, found it necessary to reiterate that the institutional mission is science. They also persistently define the scientific mission in two ways: First, science is defined as positive, methodological knowledge derived from ongoing study of problems — often phrased in terms of “attack” — that are specific to diverse fields but which are nonetheless “unified” in the pursuit of the “very orderliness of the universe [as] the supreme discovery of science” (Bunker 1938:715). Second, the value of such scientific discoveries and knowledge is its social relevancy measured as the contribution to the universalized well-being of “Man” within an evolutionary/progressive schema, that is, to the “improvement of mankind.”<sup>10</sup>

**Table 2.1b. Founding trustees of Carnegie Corporation of New York, 1911**

Founding trustees	Positions in other Carnegie philanthropies	C1W trustee
Andrew Carnegie	New York	No
Elihu Root	President, Carnegie Endowment for International Peace	1902-37
William N. Frew	President, Board of Trustees, Carnegie Institute of Pittsburgh	1902-15
Robert S. Woodward	President, Carnegie Institution of Washington	1905-24
Henry S. Pritchett	President, Carnegie Foundation Advancement of Teaching	1906-36
Charles L. Taylor	President, Carnegie Hero Fund Commission	No
Robert A. Franks	New York	No
James Bertram	New York	No

According to Merriam, Woodward regarded the “method of science” as “having permeated all regions of thought and animated all of the commercial, industrial, political, social, and religious activities of men. Whether we welcome it, deplore it, or indifferently acquiesce in it, the fact seems undeniable that the method of science and the doctrine of evolution are the most effective sources of the intellectual enterprise of our day” (Merriam 1924:4). Merriam, in his 1934 “President’s Report,” extends this idea to conclude that the value of science is not merely the “betterment of living conditions through ready production both of necessities and luxuries” and the “abolishing of poverty in the material sense” but also the elimination of the “poverty of mind and soul” (Bunker 1938:737-738). Thus, for Merriam, the value, mission, and ultimate social relevancy of science is “the seeking of truth” on which to construct philosophy and religion: “Science gives reason why every man should have a philosophy and at least an appreciation of what religion may signify” (Bunker 1938:738). In 1937 Merriam further explains that although there are differences between the natural and the social sciences, the method of natural science would be used with “increased value” in the social sciences to attain understanding of “the larger history of evolution of life-forms” and the “orderly movement in social evolution” at the heart of which is creation, that is, “constructive or creative activity” (Bunker 1938:739, 740).

Statements such as this, which waxed into philosophical lyricism, must have contributed to the view of some C1W trustees, as well as to Merriam’s

replacement, Vannevar Bush, that Merriam was a “poser,” “old fake,” and “paranoid” (Zachary 1999:84). It also suggests why Boas and his followers viewed Merriam’s vision of anthropology as quite antithetical to theirs.

The predominant conception of the mission of science and its “social relevance” that the CI maintained, therefore, was not a notion of immediate applicability and utility. The Carnegie maintained an open-ended and long-term vision of, first, the uneven process by which scientific knowledge production “advances”; second, the difficulties of a priori knowledge of the “social” relevance of the results of investigation; and third, the appropriate means of application once the production of specific knowledge has been paired with an appropriate social context of application (Woodward 1915:14–17; Merriam 1922:4–5; 1937:6–11). This seems in part to be a faithfulness to Andrew Carnegie’s ideas, that science and research have their own rhythms of accomplishment and to be successful must have sufficient time for the development both of research (collection, analysis, and synthesis of data) and of application. It is also an operational definition of “basic research.” The mission of the CIW was limited to the production and dissemination of scientific knowledge, not its application; indeed, application was not even an applicable criterion of basic research — except during the war efforts of World War I and World War II as will be discussed later. Thus, the CIW goal of improvement of “mankind” stands in contrast to the objectives of social-science initiatives by Rockefeller funding in the interwar period (see Stocking 1992:178–211). In the former, the “application of knowledge” produced in basic research is an uncertain goal with an undefined future and amorphous shape; in the latter, the aim of basic research was to create knowledge that had both immediate relevance and contemporary applicability. By way of contrast to these two modes or visions of basic research, it might be useful to define “applied social science” or “applied anthropology” as using a contrastive criterion of contemporary relevance and immediate applicability.

But where is science to be applied to have relevance for the improvement of humanity? In other words, the problem of the application of scientific knowledge raises the question about the conceptualization of the “social place” or real-world domain where knowledge is to be applied. To extract from the Carnegie vision such an embedded and implicit notion, it is useful to briefly characterize Manuel Gamio’s vision of anthropology. In his 1916 manifesto, *Forjando Patria*, anthropology is painted with positivism, not only in terms of epistemology but in the sense that anthropology is positioned as “sociology” in the Comtean scheme, where this scientific discipline is the pinnacle and the synthetic umbrella of a scientific rationality and practice commissioned to restructure, even engineer, so-

ciety toward improvement. Gamio's anthropology, beside literally being a governmental science established as an agency of the revolutionary Mexican state, is a governmentality that assumes the nation as the space of operation, the modern nation as the goal of its agenda, national society as the target of its application, and national culture(s) (and citizenry) as the problem to resolve. This makes almost a point by point contrast to Boasian anthropology, which did not prioritize, foreground, or problematize the nation until World War II. Rather the nation was assumed as a pre-given and thus nearly invisible "solidity" of the public sphere in the third space between private citizen/family and the state. The field of operations of Boasian anthropology is the space not of the nation but of society; this point offers another way to go about explaining why anthropology had to first create a subfield of political anthropology as a subset of itself and then by the end of the 20th century become itself almost intrinsically and self-consciously political in its approach and assumption of objects. Thus, anthropology for Gamio is envisioned as a governmentalist practice of direct intervention by para-state agencies, while anthropology in its university modality that Stocking defines as Boasian is an indirect application of knowledge either as advocacy or as policy formation; it is this indirect governmentality of U.S. university-based anthropology that necessarily leads to the emergence of an "applied anthropology" premised on the direct intervention in a field of operation defined not as the nation but as minoritarian sociocultural communities.

Similarly, Gamio's vision of the relevance of basic research also contrasts with the CIW vision of science. As in university science, the nation is already given—it exists and is stable, and thus it can recede into the background as an enabling assumption. The "social" is also already given as the public and civic spheres of modernity that are ideologically fashioned as "universal" even as these spheres retain the contours of the nation. Society is the space of intervention and the goal of the abstract ideal of "improving Mankind"; however, it is not the problem to which scientific knowledge is to be applied. Thus, "relevance" is an assured eventuality based in dissemination to the public, not a problematization of the public as a population in which to apply science in the form of policing, statistics, surveillance, and so on. The exception to this liberal-pastoral logic of improvement, of course, was the Carnegie Eugenics Record Office (Charles Davenport, founding director), which sought to have both immediate relevance and applicability precisely in this policing mode of governmentality.<sup>11</sup> Further, the scientific ideal of improvement takes the form of a value and desire (presented as "objective" and "neutral" because of its detachment) to organize the world by scientifically rational principles; in

this valorization the priority and privilege of one nation, the United States, is presupposed as the field, means, mode, and beneficiary of application. This double articulation of value-free science (“objective neutrality”) that aspires to universal value, on the one hand, and the enabling conditions within a nationalist agenda, on the other hand, becomes glaringly obvious during World Wars I and II, when the CIW mobilized itself for the war effort as the primary orchestrating center of military-industrial research and production.

In his annual “President’s Report” in 1941 (*Year Book* no. 40), the second of his term as president, Vannevar Bush eloquently expresses this doubling of universal good and good of/for nation in the following manner:

The urge to do something for humanity, by improving its knowledge of its environment, is so allied to the urge to do something definite to protect one’s country from aggression that all scientific effort responds to the stimulus. This is one of the reasons why fundamental scientific advance, and in fact basic intellectual accomplishment of many kinds, is often accelerated rather than retarded by national stress. . . . For the scientist whose talents apply directly to the means by which a nation defends itself, the way is glaringly clear. He may well regret deeply that his efforts, so long devoted to an altruistic ideal embracing the whole of mankind, become limited for a time to a narrower national aim. But he shares in that primal joy that comes from intense group effort in defense of his home, sublimated it is true, but just as real as though he stood at the mouth of a cave with a few strong men of the clan armed with stone axes against a hostile world.  
[Bush 1940:4–5]

It is interesting to compare this expression with the similar message in his 1939 (*Year Book* no. 39) incoming “Report to the Trustees.” The 1940 statement is more a rhetorical rallying of the converted, made after the United States entered World War II. The 1939 statement is clearly a pleading appeal to the undecided, made before official U.S. participation in the war.

In both cases, there is an appeal to what is positioned as the ethic of science as well as the ethics of the scientist. Both cases are based on a kind of “duplexity.” It is this “duplexity” of the scientific ethic and ethics of science that Boas confronted beginning with his 1919 letter to the *Nation*—and then in the National Research Council, where then NRC chairman and future CIW president Merriam forced Boas’s resignation. “Duplexity” was coined by Peter Pels (1999) in his analysis of the recent rise of moralism in

the history of anthropology to refer to the way in which anthropologists have ethical-moral commitments to two divergent categories of persons, client-sponsors that fund research and the studied subjects of research.<sup>12</sup> Duplexity is not duplicity. The double commitments, here to the universal good and to the nation, may or may not overlap, contradict, support, or intersect each other. As expressed by Bush, duplexity is clearly the condition of possibility not only for the Carnegie war effort but also for scientific achievement in general. It is fundamentally the basis for the sanctioning by the Carnegie presidents and trustees of espionage by archaeologists during both world wars.

### The Invisible Grid: Persons, Positions, Power

The Carnegie Institution of Washington is so constituted that it is bound to be deeply involved in that aspect of the present intense national effort which is concerned with the application of the natural sciences to national defense, and it is necessary and fitting that the Institution should respond fully to the call of government in this regard. Inevitably, therefore, many of its long-range programs of research in the field of pure science have now been changed or held in abeyance.

Vannevar Bush, "President's Report"

In the course of my archival research at the CIW in the 1990s, I asked staff whether they knew of espionage by Carnegie archaeologists. The response was typically "no, how interesting" followed by "but it is not a surprise given who the trustees were!"<sup>13</sup> The goal of this section is to present information on the trustees such that the idea of Carnegie archaeologists working as spies is as ordinary, predictable, and obvious for anthropologists as it is for Carnegie insiders.

The first decade of the CIW, as already noted, entailed an ongoing negotiation over the priorities and nature of the research that was to be sponsored (Madsen 1969; Reingold 1972, 1979). In this struggle, John S. Billings (chairman of the board of trustees, 1903–13) and Charles D. Walcott (trustee, 1902–27; vice-chairman of the board of trustees, 1914–25; and chairman of the executive committee of the trustees, 1917–21; president of the National Academy of Sciences, 1917–23 [Malone 1936, vol. 19:328]) had greater influence over the first CI president Gilman. The CIW's own centennial history defines Billings and Walcott as the *de facto* elite who ran the show. Woodward was able to wrestle greater administrative control back to the office of president, it seems, with his determination to keep the institute financially stable, on the one hand, and focused on nonuniversity, pure research, an interest shared with Billings and Walcott, on the other hand; this triadic dynamic was broken, however, with the

death of Billings in 1913. Furthermore, a new generation of trustees had already begun to emerge in the period from 1907 to 1915. As a senior trustee, Walcott assumed a new position of power (chairman of the Executive Committee), but, according to Reingold (1979:326-329, 334, 336-339), he had already been neutralized by Woodward.<sup>14</sup>

The first generation of trustees can be divided into four categorical types: "military men," "men of science," "businessmen," and "government men."<sup>15</sup> Among the first type were officer veterans of the Civil War and/or Spanish-American War, such as John C. Spooner (trustee, 1902-7), Col. Henry L. Higginson (1902-19), and Carroll D. Wright (1902-8), but also included in this type were a number of physicians, such as Billings and S. Weir Mitchell (1902-14), who were more publicly recognized as men of science. Among the "science men" were ex-presidents of universities, for example, Andrew D. White (trustee, 1902-16) from Cornell, Gilman (1902-8) from Johns Hopkins, Seth Low (1902-16) from Columbia, and Henry S. Pritchett (1906-36) from MIT. Pritchett (an astronomer of Welsh descent) was also president of the Carnegie Foundation for the Advancement of Teaching (1906-30), founding trustee of the Carnegie Corporation, and involved in the Carnegie Endowment for Peace. Also in this category were medical doctors whose accomplishments clearly extended into areas of science, teaching, and administration: S. Weir Mitchell (of Scottish descent and a friend of Carnegie) was a recognized pioneer in neurology; Henry P. Walcott (trustee, 1910-24) was chair of the Massachusetts State Board of Health (Malone 1936, vol. 19:329); Billings, who directed a hospital in the Civil War, was also founder of the Johns Hopkins Medical School, the National Medical Library, and the New York City Public Library; William W. Welch (trustee, 1906-34), however, was perhaps the most prominent as a founder (under Billings) of the Johns Hopkins Medical School, originator of the medical pedagogy, president of the Maryland State Board of Health (1898-1922), president of the American Medical Association (1910-11), chairman of the Board of Scientific Directors of the Rockefeller Institute of Medical Research (1901-33), and chairman of the Executive Committee of the CIW Trustees (1906-16) [Malone 1936, vol. 19:621-624]. Other men of science of this generation of trustees were primarily employed in government and not in universities, for example, Carroll D. Wright, CIW trustee, U.S. commissioner of labor, and also chair of the CIW Department of Sociology and Economy; and C. D. Walcott, director of the U.S. Geological Society; in contrast, Alexander Agassiz of Harvard was only briefly a trustee (1902-5).<sup>16</sup>

The businessmen who were invited on board as trustees were often philanthropists in the first decades of the Carnegie. Thus, in the first gener-

ation of trustees there was the banker and University of Chicago trustee Charles L. Hutchinson (CI trustee, 1902–19) and coal-mining industrialist Cleveland H. Dodge (1903–23); the latter founded his own New York City–based foundation on the principle that he would not profit from the money his coal-mining business made during World War I. In the second generation noteworthy philanthropists are Martin Ryerson (1908–28), also a trustee of the University of Chicago, incorporator of the Field Museum, and trustee of the Art Institute (Malone 1936, vol. 16:272), and Robert S. Brookings (trustee, 1910–29), a founder of what is now the Brookings Institute.

Government men, that is, professional politicians, included for a short period then secretary of war John Hay (trustee, 1902–5) and, for longer periods, Seth Low (trustee, 1902–16), who was mayor of New York but also ex-president of Columbia University. A number of politician/lawyers include former assistant secretary of state John L. Cadwalader (trustee, 1903–14) and a (then) future U.S. president William H. Taft (trustee, 1906–15); this pair later formed, along with George W. Wickersham (trustee, 1909–36), the prestigious Cadwalader, Wickersham and Taft Law Firm in 1914. However, the most significant “government man” was the illustrious and controversial Elihu Root (trustee, 1902–37).

As an upstate New York lawyer, Root entered the public eye when he defended the famous Tammany Hall case in the mid-19th century.<sup>17</sup> He later became secretary of war (1899–1904), secretary of state (1905–09), U.S. senator from New York (1909–15), and a powerbroker in DC politics. He was the first U.S. secretary of state to initiate a trip to Latin America in the 20th century, and he played a key role in U.S. relations with Latin America as well as the Philippines; he was a strong protagonist in the creation of the Pan-American Union, which later became the Organization of American States. As a close friend and advisor of Andrew Carnegie, he became chairman of the Carnegie Endowment for Peace (1910–25) and a trustee of the Carnegie Corporation. As a lawyer-statesman and advisor of presidents and contenders, he was a key player in the League of Nations and The Hague Peace Palace. As a CIW trustee, Root served as vice-chairman of the board of trustees (1903–13), chairman of the board (1914–37), and chairman of the Executive Committee (1922–30). While always a powerful voice in Carnegie affairs, Root became the central axis as he assumed the top administrative roles among the trustees beginning in 1914, after the death of Billings.

The emergence of what I refer to as the second generation of trustees can be dated with the inclusion of William Barclay Parsons (trustee 1907–32), a civil engineer famous for his work on the Panama Canal, a railroad in

**Table 2.2a. Officers and committees of the CIW Board of Trustees, 1915**

Chairman, Board of Trustees	Elihu Root
Vice-Chairman, Board of Trustees	Charles D. Walcott
Secretary, Board of Trustees	Cleveland Dodge
Chair, Executive Committee, Board of Trustees	William H. Welch
Members, Executive Committee	Wm. Barclay Parsons Henry S. Pritchett Charles D. Walcott Henry White
Ex-Officio members of Executive	Cleveland Dodge Elihu Root Robert Woodward (president)
Finance Committee	Cleveland Dodge (chair) Henry S. Pritchett G. W. Wickersham
Auditing Committee	R. S. Brookings (chair) C. L. Hutchinson G. W. Wickersham

China, the Cape Cod Canal, and the New York City subway, among other public works (Malone 1934, vol. 14:276–278).<sup>18</sup> In this generation Senator Henry Cabot Lodge (1914–24), Stewart Paton (1916–42), Simon Flexnor (1910–14), Henry White (1913–27), Henry Walcott (1910–24), Theobald Smith (1914–34), James Parmalee (1917–31), and John J. Carty (1916–32) came on board (also Taft, Brookings, and Ryerson as noted). This board membership took shape under the second half of Woodward’s presidency when the CIW initiated its first encounter with the government as an institutional manager of the scientific-military-industrial war effort.

The CIW trustees set up three committees, two of which dealt with financial-managerial aspects of the institution. The administrative power of the institution was divided into the office of the president, the “directors” of the board of trustees, and the Executive Committee of the Board of Trustees. By directors I refer to the chairman, the vice-chairman, and the secretary of the board; along with the president, this group of persons ran the annual meeting. However, it was in the executive committee, at meetings held throughout the year, that decisions shaping policy and funding were made. Once shaped at this level, policy choices were brought up for vote and further discussion by all trustees in the annual meetings of the board.

**Table 2.2b. Officers and committees of the CIW Board of Trustees, 1927**

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Chairman, Board of Trustees	Elihu Root
Vice-Chairman, Board of Trustees	Henry S. Pritchett
Secretary, Board of Trustees	Cameron Forbes
Chair, Executive Committee, Board of Trustees	Elihu Root
Members, Executive Committee (in 1922 ex-officio members were eliminated and became direct members)	John J. Carty W. Cameron Forbes J. C. Merriam Wm. Barclay Parsons Stewart Paton Henry S. Pritchett G. W. Wickersham
Finance Committee	Wm. Barclay Parsons Henry S. Pritchett (chair) G. W. Wickersham
Auditing Committee	Robert S. Brookings (chair) James Parmalee Martin A. Ryerson

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This organizational structure remained intact with only slight modifications in 1922, under the second year of Merriam's tenure as president, and then additions under later presidents Bush and Haskins. (See Table 2.3 for the succession of CI presidents and summaries of accomplishments.) Further the placement of persons in governing committees remained fairly constant from 1915 through the mid-1920s. The rearrangement of persons in positions essentially follows the death of Charles D. Walcott in 1927. In his place Elihu Root (1902–37) and Henry S. Pritchett (1906–36) became positioned as the key leaders in the subsequent ten-year period. New trustees who became members of the board and assumed committee positions were W. Cameron Forbes (1920–55) and John J. Carty (1925–34). This reconfiguration, in conjunction with the retirement of Jameson as the director of the Department of History, allowed Merriam to initiate his plans for the expansion of the Maya archaeology program under the umbrella of history with the rise of A. V. Kidder as the director of a newly created Division of History, which included Southwest archaeology, history of science, American history, and multidisciplinary Mesoamerican research.

The significant changes in the 1930s began with loss of both Root and Pritchett. In 1932 Root first stepped down from the chair of the executive committee. Pritchett was his initial replacement for two years only when

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Chairman, Board of Trustees	W. Cameron Forbes
Vice-Chairman, Board of Trustees	Walter S. Gifford
Secretary, Board of Trustees	Frederic A. Delano
Chair, Executive Committee Board of Trustees	W. Cameron Forbes
Members, Executive Committee	Robert Woods Bliss Frederic Delano Walter S. Gifford J. C. Merriam (president) Stewart Paton Frederic C. Walcott Lewis H. Weed
Finance Committee	Walter S. Gifford Alfred Loomis Henry S. Morgan Elihu Root Jr. Frederic C. Walcott (chair)
Auditing Committee	Frederic Delano (chair) Homer L. Ferguson Wm. Benson Storey

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afterward Forbes became chair of the executive committee; Forbes also replaced Root as chairman of the board in 1934. Frederic Delano (1927-49) assumed the position of secretary of the board and was made a member of the executive committee in the 1930s. In this rearrangement, Walter S. Gifford (trustee, 1931-66) also moved up as vice-chairman of the board as well as became a member of both the executive committee and the finance committee. Other new trustees included Herbert Hoover (1920-49), Gen. John Pershing (1930-43), Frederic C. Walcott (1931-48), James Wadsworth (1932-52), Frank B. Jewett (1933-49), Roswell Miller (1933-55), Charles Lindbergh (1934-39), Richard P. Strong (1934-48), Alfred L. Loomis (1934-73), Lewis H. Weed (1935-52), James F. Bell (1935-61), Robert Woods Bliss (1936-62), Henry R. Shepley (1937-62), and Elihu Root Jr. (1937-67). Noteworthy is that Jewett was president of the National Academy of Sciences and head of AT&T's Bell Laboratories, Weed was head of the Medical Division of the National Research Council, Forbes was a businessman and diplomat (former governor general of the Philippines, ambassador to Japan), Delano was FDR's uncle, F. Walcott had been a Republican senator from Connecticut, and Herbert Hoover was the Republican president prior to FDR. It

**Table 2.3. CIW presidents, 1902–2004**

President	Years	Biographical notes
Daniel Coit Gilman (1831–1908)	1902–4	Educator, librarian, professor of geography 1872–75 president of UC Berkeley 1876–1901 founding first president of Johns Hopkins University
Robert Simpson Woodward (1849–1926)	1904–20	Astronomer, geographer, mathematician 1884–90 U.S. Geological Survey (under J. W. Powell) 1890–93 U.S. Coast and Geodetic Survey 1893–95 Columbia, professor of mechanics and mathematical physics 1895–1904 Columbia, dean of College of Pure Science Member, U.S. Naval Consulting Board, 1915–19
John Campbell Merriam	1921–38	Paleontologist, geologist, archaeologist UC Berkeley professor, PhD from University of Munich 1890s conducted stratigraphic excavations in San Francisco Bay middens; later supervised Max Uhle's work in same San Francisco Bay shell mounds 1919 chair of NRC (forced Franz Boas's resignation); chair again 1921–22 His brother Charles was University of Chicago professor, founder, and chair of SSRC in the 1920s
Vannevar Bush (1890–1974)	1939–55	Inventor and intellectual architect of National Science Foundation 1932–38 dean and vice president, MIT 1940–41 chair, National Defense Research Commission 1941–47 director, Office of Scientific Research and Development (OSRD) 1942–46 chair, Joint Committee on New Weapons and Equipment, Joint Chiefs of Staff 1947–48 chair, Research and Development Board, National Military Establishment

President	Years	Biographical notes
Caryl P. Haskins (1908–2001)	1956–71	Areas of research: biophysics, genetics, entomology (Web searches find more of his poetry than achievements in science; let us say simply therefore that he was a poet who did good science)
Philip H. Abelson (1913–2004)	1971–78	Physicist, worked on the Manhattan Project 1941–1945 associate, senior and principal physicist, Naval Research Laboratory 1946–1953 chairman, Biophysics Section, CIW Department of Terrestrial Magnetism 1953–71 director, CIW Geophysics Laboratory 1960–63 General Advisory Committee, Atomic Energy Commission 1962–84 editor, <i>Science</i> magazine 1968–81 council member, National Academy of Sciences 1971–78 president and CIW trustee 1978–80 chairman, Board of Trustees, Bio-Energy Council 1984 Distinguished Public Service Award, NSF
James D. Ebert (1921–2001)	1978–87	Embryology, developmental biologist 1981 elected vice president of the National Academy of Sciences 1981 led reorganization of National Research Council; chair of Government-University-Industry Round Table 1956–76 chair, CIW Department of Embryology At one point president of 8 professional societies and trustee of 13 national and international organizations
Edward E. David Jr. (1925–)	1987–88	Interim president 1970–73 science advisor to Richard Nixon 1979 chair of Executive Committee, Board of Directors, American Association for the Advancement of Science

President	Years	Biographical notes
Maxine Singer (1931-)	1988-2002	Biochemistry and molecular biology 1980-87 chief of laboratory biochemistry, National Cancer Institute 1975-90 trustee, Yale (University) Corporation 1985-94 director, Whitehead Institute 2004 Philip Hauge Abelson Prize, AAAS Member, Human Genome Organization
Richard A. Meserve (1944-)	2003-	Lawyer, applied physics 1999-2002 chairman, Nuclear Regulatory Commission 1992-CIW Trustee Member, Board of Directors of the American Association for the Advancement of Science

was this board, with its strong political, business, and science connections, that brought Vannevar Bush to the CIW as president, thereby setting the conditions for the wholesale transformation of the relations between government, science, and business (see Bush 1990; Zachary 1999).

In this decade Merriam lost his ally in Maya archaeology when William Barclay Parsons (1907-32) died in 1932. A generation of trustees retired or passed away in the early 1930s: John J. Carty (1916-32), Whiteford R. Cole (1925-34), Cass Gilbert (1924-34), Frederick H. Gillet (1924-35), Andrew J. Mellon (1924-37), Andrew J. Montague (1907-35), James Parmalee (1917-31), philanthropist Julius Rosenwald (1929-31), Theobald Smith (1914-34), William H. Welch (1906-34), and George W. Wickersham (1909-36). By 1932 Steward Paton (1916-42) was among the few trustees, and the only one on the executive committee, whose tenure dated from the initial years of Merriam's presidency in the 1920s. A new generation of trustees had emerged; as detailed by Zachary (1999), the key players (Forbes, Delano, F. Walcott, Jewett) were supporters of the dynamic Vannevar Bush, who by the mid-1930s was loudly proclaiming the need for the military, science, and industry to prepare for war (Zachary 1999:76-86).

Because of space constraints as well as persistent gaps in my own knowledge, more extensive biographic and sociological information on

the trustees is not provided.<sup>19</sup> The historical tracking of the trustees becomes too complicated at this point and is not immediately necessary for the present work. This essay offers an initial diagram of persons and hints of their networks for future research on the Carnegie; it is suggestive of and useful for a variety of different lines of study. Nonetheless, the goal here is to make visible some of the points of the grid that enabled the CIW to play a central role in the emergence of the U.S. military-scientific-industrial complex during both World War I and World War II.

### The Carnegie War Effort: Espionage in Context

The war work of the Carnegie Institution covered many fields of activity, from the manufacture of optical glass to military intelligence work, and to it all Dr. Woodward offered the most effective support. He himself was a member of the Naval Consulting Board.

Fred E. Wright, Memorial of Robert Simpson Woodward

Amongst other men who have been called from the Institution into the Government we have one man who is serving as a spy. He is an archaeologist, and archaeology puts up a very fine camouflage for that business.

Robert Woodward, 1917

In the symposium to honor the centennial of Vannevar Bush's birth (1891–1974), CIW President Maxine Singer (1991:5) noted that Bush was an “unsung hero” who had not received the recognition due him for his part in the reshaping of U.S. science. By the end of the 20th century, many had begun to sing him praise, including for his role as the intellectual author of the personal computer and the Web. His role, along with the Carnegie's, in World War II has become clear. What is missing, however, in this new historical impulse is close inspection of the precedent for an alliance between science, government, and industry that had already been set by the CIW during World War I. There is no attempt here to provide the “fine chapter” that Woodward so proudly anticipated. Instead, as a stimulus for further research, I offer a synthesis of Woodward's own summary of the “detailed reports concerning the activities . . . of the Institution in Government work” (Woodward, BT 1919:797) that he presented to the trustees in 1917, 1918, and 1919.<sup>20</sup> The part of his 1919 report on the war effort can be broken down into four sections that deal with the basis of the war effort, the Naval Consulting Board, costs and benefits, and staff and department participation, respectively.

In the April 1917 meeting of the executive committee, the members made two resolutions that enabled the CIW war effort. These resolutions shifted priorities from pure to applied research; thus, as postulated by James Trefil and Margaret Hindle Hazan (2002), the war effort was capacitated by a temporary shift of mission, which was envisioned by the famous clause Andrew Carnegie inserted into the Articles of Incorporation that allows a vote of the trustees to change the mission/agenda of the institution. Woodward repeated the resolutions of the executive committee to the entire board of trustees. These are, first, that the CIW president could respond to U.S. government requests to place CIW personnel and facilities at the service of the government, and, second, that such staff would be placed on leave of absence and that the CIW would cover the difference between the wages/salaries paid by the government and what the person would otherwise receive from the CIW (See BT 1917:687–688; Executive 1917:26). Woodward added that sometimes the government had to be prodded to make the necessary request.

### *The Naval Consulting Board*

This advisory committee emerged in 1915 at the request of the Navy for two representatives of “technical societies” to advise on “the business of research” for military purposes. At the first meeting, the board, which included Thomas Edison as honorary chairman, changed the name from Advisory Board on Inventions for the Navy to Naval Consulting Board. Also in 1915, George Hale, the CIW director of astronomy, pioneered the creation of the National Research Council, in which Woodward was also active; the NRC was the branch of the National Academy of Sciences that would advise the government on science and technology in the preparation for war “with functions similar to the National Defense Council” (Woodward, BT 1918:758). As charted by Lagemann (1989:29–44), there was some negotiation of power and prestige by Hale and others over the best way to create a more effective, if not also permanent, research and technology arm of the government for war purposes during peacetime. From Woodward’s own sarcastic and critical accounting, the NCB was mostly ineffective as it subscribed to the

theory that discoveries and advances are about as likely to come from untrained as from trained minds and that, since the number of amateurs is very large, the best way to secure advances is to set experts at work examining the suggestions and inventions of

inexperts. . . . The Naval Consulting Board was also encouraged to believe that discoveries and advances are developed chiefly by abnormal minds and that it is therefore worth while [*sic*] to set men of proved efficiency and capacity at work scanning the horizon for the scintillations which might otherwise emanate unperceived from exceptional men, who are supposed to be in hiding, or at best more or less concealed behind books and bottles in dingy laboratories. . . . The so-called “wizards” of the Naval Consulting Board produced no epoch making inventions to win the war. They examined about 110,000 miscellaneous suggestions and inventions and found less than 10 of these worthy of application and development. [Woodward, BT 1918:759, 761]

In contrast, Woodward approved of the NRC, which “proceeded on the supposition that discoveries and advances may be most reasonably expected to arise with those that have already shown capacity to make them” (BT 1918:759). Woodward suggested, however, that these two advisory boards in tandem were important contributors to the war effort and that they provided the impetus for CIW collaboration. Perhaps the most significant contribution, or the one of which Woodward was the proudest, is the production of optical glass for weapons. Since such glass had previously been imported from Germany, and the manufacturing technology had been previously unknown in the United States, CIW researchers had begun to develop it as early as 1915.

Two points are worth noting here: First, Woodward and Hale were already involving and mobilizing the CIW in a war effort by 1915. The full extent and nature of this mobilization requires further archival research because it poses several questions. For example, were other persons, such as CI trustees (e.g., former secretary of war Root, Senator Cabot Lodge, Parsons), involved in the mobilization? Was espionage an “extracurricular” factor that was considered by any of the protagonists involved? Was it a factor in the creation of a Maya archaeology program and the hiring of Sylvanus G. Morley (see Harris and Sadler 2003)?

The second point regarding this war effort is that this alliance between government, science, and industry failed to lead to a permanent network. Woodward himself laments that it would not congeal because of inefficiency on the part, not of military men, but of the government itself. We might add that neither Hale nor Woodward was the visionary leader that Bush would later prove to be. Interestingly, it is precisely a related frustration with the government’s inefficiency in adopting his technological inventions during World War I that prompted Bush to develop a vision of how to organize science in relationship to industry and the state.

## *Costs and Benefits*

It is worth noting, as did Woodward, that despite financial aid from the government, the CIW war effort entailed a financial burden that would soon bring crisis. (See Table 2.4 for a summary of costs.) The solution was a series of ten annual contributions of \$250,000 from the Carnegie Corporation. Despite this pending crisis (discussed in BT 1919:808–824), Woodward found some symbolic and long-term benefit: He was especially happy that the public had now come to identify and begun to understand who and what the CIW was: “The war has helped to put the Institution on the map” (Woodward, BT 1919:806). However, he further noted, “while confidence in and respect for the Institution have been measurably increased during the war, irrational expectations . . . have not diminished” (BT 1919:807).

Another “cost” that was less a problem for the institution per se than a burden on Woodward’s own time commitments was the necessity, he claimed, of surveillance. Woodward complained: “The time has apparently arrived when it is permissible to state that no inconsiderable portion of the time and attention of the President of the Institution during the past four years has been devoted to the business of watching Germans connected with the . . . [CIW] staff” (BT 1919:763). In other words, since 1915 President Woodward, whom the secondary literature on the history of anthropology claims was a friend of Boas from their Columbia days, was also conducting espionage, albeit in-house, on those “persons suspected of pro-German tendencies” (details provided in BT 1918:763–766).

## *Staff and Department Participation*

Woodward also took note of the efforts of the staff in the war by detailing aspects of their participation. Nearly two hundred representatives, or two-thirds of the CIW staff, including three trustees (John J. Carty, W. Barclay Parsons, W. H. Welch), were engaged directly or indirectly in the “Government service.” Among the “39 persons [that were] connected directly with the Army and Navy services of the U.S. . . . were three colonels [the trustees], one lieutenant colonel, four majors, three captains, five lieutenants, and sixteen non-commissioned officers and privates in the Army. In the Navy there were one lieutenant and two ensigns. There were also in the British Army one captain, two lieutenants, and one engineer of the Chemical War Service from the Staffs of the Institution” (BT 1918:797–798).

Woodward noted that among the three staff members in the Navy, Morley rose from ensign to navy lieutenant (Woodward, BT 1919:799):

**Table 2.4. Costs of the CIW war effort, World War I**

Costs	Total costs	CIW expenses	Government expenses
Salaries and wages	\$339,499.60	\$292,860.80	\$46,638.80 (payment)
Direct expenses	\$194,783.19	\$85,524.39	\$109,258.80 (reimbursement)
Total real costs	\$534,282.79	\$378,385.19	\$155,897.60
Estimated indirect costs and losses		\$150,000.00	
Estimated + actual	\$684,282.79	\$528,385.19	

Source: Woodward BT 1919:801-805.

The “[CIW] Research Associate in Central American Archaeology, Mr. Morley . . . became an ensign of the United States Navy in April 1917 and has . . . served the intelligence Office of the Navy very effectively. His experiences have been full of adventures” (Woodward, BT 1918:755-756).<sup>21</sup> It is a curious turn of phrase: even in the face of the then-recent human slaughter in the “Great War,” espionage by archaeologists was envisioned as an adventure. It is as if, when he listened to Morley’s stories at the Cosmos Club, Woodward were dreaming of some future moment of watching a movie about an archaeologist from/called Indiana fighting Germans.<sup>22</sup>

### Historiography, Ethics, and the Improvement of Man

[In his] book, *Science the Endless Frontier*, Dr. Bush laid the foundation from which, in later years, the modern National Science Foundation was to be developed. Indeed, the whole current philosophy of federal aid to nongovernmental, scientific research in the nation virtually took its origin in the debates and deliberations of those years, guided and usually dominated by his thinking.

Caryl P. Haskins, *The Search for Understanding*

The trustees agreed with Woodward that his reports of 1917-19 on the CIW war effort and the Naval Consulting Board would not be published in the *Year Book* and perhaps should not be for some five years. Woodward himself communicated his desire to write the history of the CIW, including the “fine chapter” that for the moment would have to be buried from public scrutiny. Perhaps he viewed his plan to retire as president, which he announced in the 1918 meeting (he remained a trustee until 1924), as an

opportunity to pursue this goal, but death in 1926 overcame that project. Here then is a fortuitous event that has contributed to the general silence and near amnesia of CIW about this precedent. No doubt the trustees of the 1930s knew of the previous efforts, perhaps even in detail, given some of the political-military associations of the 1930s leadership with Root. Regardless, what Woodward and the CIW attained in World War I was certainly not comparable to what Bush and the CIW attained during World War II, namely, the wholesale transformation of the social context of science and the military-science interface of the United States. In contrast to the silence of the trustees following 1919, there was no dissimulation of the scientific work for military purposes—except, that is, for the archaeological espionage in Latin America (see Price 2000). Whether or not this was a conscious tactic to aggrandize Bush's own accomplishments, it should be recalled that upon entering office as president, Bush, at least symbolically, did indeed “burn the history books” and history itself—that is, with well-known disdain for history and its methods, he eliminated the CIW historians of science and of the United States. It is a thesis to pursue that the only reason archaeology was also not cut was the functional espionage it contributed to the CIW war effort.

Archaeologists, anthropologists, and many historians of anthropological sciences, with marked exceptions, continue to promote historical amnesia about the “espionage episode” not only when it first emerged in the institutional context of the CIW, but later when this practice was further developed and routinized in the Bush–CIW–World War II milieu.

In this essay no moral or ethical judgment is assumed or made. Rather, the goal has been to create greater knowledge and understanding of these events in and of themselves in order to debate the ethics and morals of the actions, choices, practices, and situations involved. While this might seem like a sleight of hand akin to a scientific protestation of value-free neutrality while holding a postcolonial/postmodern knife of criticism behind the back, it is not. My view is that cultural analyses that offer or entail a political critique too often pose or are received as ethical analyses; but an analysis of ethics, despite its assumption or promotion of a political position, is a very different activity than, even as it relies on, both a cultural description of politics and a political description of culture. The recommendation here is that the basic facts of the situation, as well as thorough knowledge of it, have still to be disclosed and developed. For this to occur, the historiography of the field must open up.<sup>23</sup> In turn, this would allow the specific contribution of Carnegie archaeology and anthropology—vis-à-vis other “traditions” and modes of anthropology—to be celebrated and analyzed.

Table 2.5. CWV staff participation in World War I war effort

CWV Department, research facility, or other	Direct military service	Indirect military work (research and production for military)
Board of Trustees	4, Colonels Carty, Parsons, and Welch, and Major Paton	4, Trustees not identified nor work mentioned. Likely to include Woodward and Root, perhaps Senator Lodge, Massachusetts Board of Health H. P. Walcott, coal industrialist C. H. Dodge
Division of Associates and Research Associates	6, including U.S. Navy Lt. Morley	10, translations of texts, including German colonial policy; U.S. Naval Intelligence by Morley (754-755)
Publication and Administration	2	3, not specified/not mentioned
Botanical Research	1	3, advisor to Departments of Agriculture and Interior related to ecology of sheep and cattle production in Arizona (753)
Ecological Research	1	2, not specified (754)
Department of Experimental Evolution and the Eugenics Record Office <sup>a</sup>	9	5, auxiliary work, not specified (753). “Davenport is Major in Surgeon General’s Corps and has charge of anthropometrical work“ (753)

Embryology	0	4, not specified (754)
Geophysical Laboratory	3	3 I, production of optical glass and research on the concentration of nitrates
Historical Research	0	8, analysis and translation of German newspapers and journals (752)
Marine Biology	0	I, creation of instruction manual for navigation and rental for \$1 of director's yacht, the <i>Anton Dohrn</i> , for patrol service (751)
Meridian Astronomy	I	0, not specified (754)
Mount Wilson Observatory	I	29, construction of precision micrometers for the U.S. Bureau of Standards and in the manufacture of optical glass adjuncts for artillery
Nutrition Laboratory	I	25, investigations on effects of undernutrition
Department of Terrestrial Magnetism Service	10	3 I, naval instruments, especially for navigation and detection of submarines (751)
	39	156

\* There is a discrepancy between the numbers in the table and as narrated by Woodward. Nine persons are cited as involved in direct military service from the combined Eugenics Record Office and Experimental Evolution, whereas in the accompanying table, three persons and no persons, respectively, are listed for these two units.

Source for numerical information: Woodward BT 1919:799-801.

Source for descriptions of indirect wartime activities: Woodward BT 1918:747-757, with specific page number provided in parentheses.

## Notes

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1. Carnegie later gave additional funds to the endowment in block amounts (\$2 million in 1907, \$10 million in 1911) as well as set amounts in annual increments under \$1 million. By the 1920s the endowment value was \$25 million. See Carnegie 1967 for his statement upon presenting the trust deed; and Woodward BT 1919:819.

2. I treat this issue in a discussion of ethics in archaeology in Castañeda 2002.

3. The literature on and around Foucault's concept of governmentality is significantly increasing. My own understanding derives from essays, especially by Foucault and Gordon, in Burchell, Gordon, and Miller 1991, as well as Rose 1999; Dean 1999; Hindess 1996; and the essays in Barry, Osborne, and Rose 1996. See also Eley 1994 on the public sphere.

4. There are often one-year differences in the dates given for a president's term, and rarely for a trustee, between different secondary sources and even in different CIW year books. This, I believe, has to do with variations in counting the term of office based on either the date of the trustee vote (usually December) and the initiation of office (usually sometime the subsequent year). Also the year books themselves are a numbered series that corresponds to July-to-July; thus the number of the series corresponds to the earlier year, but the publication date corresponds to the later year. This confusing system was later changed to simply the correlation, which thereby added another complication.

5. Woodward himself was an astronomer but became primarily an administrator. The influential founder of the National Research Council, George Elery Hale, an astronomer, was the founding director of the CIW observatories (1904-23). See Reingold 1979; Lagemann 1989; and Madsen 1969.

6. Exceptions included Thomas Hunt Morgan, the experimental biologist who pioneered work on genes; as a Carnegie scientist he and his work were funded (1914-42) even though his labs were first at Columbia and then California Institute of Technology (Trefil and Hazan 2002:159-164).

7. This fact seems to complicate the published financial statements in terms of drawing up the annual amounts of CIW spending on departmental versus nondepartmental research. The annual amounts for research under the Division of Historical Research similarly cannot be used without corrections since the division was an umbrella for nonanthropological research (e.g., history of science, U.S. history) as well as archaeology, social anthropology, linguistics, anthropometry, medicine, ceramics, climatology, and ancillary fields (see Castañeda n.d.).

8. In fall 2000 Suzanne Garvey, CIW director for external affairs, asked me for the citation of this discussion, which she wished to provide the trustees, who were at that time again discussing the CIW name.

9. Originally the Station for Experimental Evolution and the Eugenics Record Office were separate departments, but they were combined by Merriam in 1921 under the overall directorship of Davenport. This new entity, the Genetics Department at Cold Spring Harbor, had two assistant directors who corresponded to this division. Merriam also initiated two reviews of the eugenics research in the 1920s and 1930s; Kidder was a member of both evaluation teams. In 1934 Davenport retired because of ill health, and H. H. Laughlin assumed directorship until Bush ousted him in 1940. Bush placed M. Demerec as director of the streamlined Genetics Department, which proceeded along its path of groundbreaking DNA research.

10. Bunker 1938 is an excellent source on the CIW under Merriam and includes reports by department heads. Bunker was in charge of publications and quotes extensive passages from Merriam's president's reports for the years 1931, 1934, and 1937 as well as an extensive, unreferenced comment by Root. Merriam's 1923 report includes a summary statement of Woodward's vision and agenda of science.

11. With reference to Walsh 2001, Paul Sullivan (discussant, AAA panel on Gamio 2001) pointed out that both Gamio and the CIW eugenics program were quite close to the European fascism of the day. This similarity was not lost on Vannevar Bush, who immediately sought to eliminate eugenics by retiring Laughlin, Davenport's replacement as director of genetics. An MIT friend of Bush called one of Laughlin's reports "a pretty poisonous piece of fascist racialistic tripe" (Zachary 1999:93 n. 12).

12. See Castañeda in press for further discussion of Pels and on the question of ethics in ethnography; see Castañeda 2002 for further discussion of this duality of the ethics of science.

13. Paraphrasing of personal communications with Susanne Garvey, director for external affairs, and John Strom, currently publications Web manager.

14. See Castañeda n.d. for a discussion of the Woodward-Walcott dynamic in relation to Boas.

15. The information in this section derives from various biographic dictionaries such as Preston 1940; Garraty and Sternstein 1974; and Malone 1929–36. In addition a diversity of online sources and search engines were used, including American Biography, the Library of Congress, and the websites of businesses, universities, and foundations established by trustees and/or presidents.

16. Because Wright was a trustee, his research efforts were not supervised. Once Wright retired, Woodward and the trustees realized their mistake in the lack of oversight of the department.

17. See Jesup 1964 for a full biography and Merriam 1937 for a memorial statement on Root.

18. Parsons is the trustee who immediately began to advocate a CIW archaeology program, specifically led by Sylvanus G. Morley (see Brunhouse 1971; Givens 1992; Woodbury 1973; see also BT for 1910, 1911, 1913).

19. A future, more elaborate study of this type is planned.

20. Woodward's final unpublished report, in the 1919 minutes, states: "[The] detailed reports [written by the CIW heads of research units] have been filed in the archives . . . and will be available if at any future time . . . [there is need] to make use of them in the preparation of a connected report. . . . Therefore [I] give only a summary of the personnel engaged in this work and a summary of expenses entailed" (Woodward BT 1919:797).

21. Contra this view is Brunhouse (1971: 95–147), who insists that Morley's espionage was mundane, nearly boring. Since Brunhouse based his opinion completely on Morley's diary, the sense of a lack of adventure might be in comparison to Morley's "usual" escapades

and/or a more sober narrative style for the espionage activities. Harris and Sadler (2003), relying on Office of Naval Intelligence (ONI) archives to write their "fine chapter" on Morley's espionage, do not fail to note the "adventure."

22. The Cosmos Club was the most elite social club of Washington DC, where Carnegie trustees and S. G. Morley were members. According to Harris and Sadler (2003:46-48, 398 n.n. 22, 23, 28, 30, 32), Morley made his contact with the ONI recruiter, Sheldon, at this club (also see Brunhouse 1971:63-94). Curiously, Trefil and Hazan claim (2002:215), against all odds, that the inspiration for Indiana Jones was not Morley but Earl Morris. Further, they assert that the depiction of Earl Morris in the adventure narrative of archaeology at Chichén written by his wife and excavation partner, Anne Axtell Morris, is the source of Indiana Jones (see Morris 1931).

23. An example of historiography that attends to the sociological contexts of anthropology is offered by Patterson (1995, 2001).

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