**Civil Engineering and *Doboku***

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**1. Introduction**

A significant proportion of the official development assistance (ODA) provided by the Japanese government generally consists of support for the development of infrastructure such as roads, bridges, tunnels, ports, airports, railways, dams, irrigation, water supply, sewerage, and telecommunications. The Management Council for Infrastructure Strategy was established by the Japanese government in March 2013, and a policy was formulated to spread Japanese technology and systems—the “Japanese way”—through the use of ODA and related initiatives. The government went on to announce the Partnership for Quality Infrastructure in May 2015, demonstrating to the international community its commitment to promoting efforts to build “quality infrastructure” in collaboration with other countries and international organizations. This emphasis on support for infrastructure is anticipated to continue (Nakamura 2017).

What, then, does it mean to “build infrastructure” in a Japanese context? In other words, what is seen as the purpose of building infrastructure, and what are the perceptions of how it should be done? The concept of “*doboku*” is a key concept in considering these questions. In Japan, “*doboku kogaku*”(the discipline of civil engineering) refers to the techniques and knowledge used to build infrastructure. The process of building infrastructure is referred to in terms of “*doboku jigyo*” (civil engineering projects) or “*doboku koji*” (civil engineering works). The Japanese term *doboku* has been used since the Meiji era as a translation of “civil engineering” in English. However, the historical background of *doboku* sets it apart from its English equivalent. Translating *doboku* as civil engineering, therefore, prevents a full understanding of its nuance and connotations. In this paper, I will highlight the characteristics of the *doboku* concept through an analysis of the historical processes that led to its emergence and significance. Through this work, I aim to contribute to an understanding of the distinctiveness and universality of the Japanese approach to building infrastructure in the context of development assistance.

**2. The emergence of *doboku***

The Japanese word *doboku* and its Chinese equivalent have been used since ancient times. For example, the use of the term *doboku* in Japan can be traced back to dictionaries and texts on history from the Heian period (794-1185). The mention of *doboku* in these texts generally refers to the construction or repair of large buildings such as palaces or temples, or associated techniques. The term *doboku* subsequently fell out of use, however, from the Kamakura period to the Edo period, while Japan was ruled by successive samurai governments (1185-1868). Instead, the term “*fushin*” (“construction” or “public works”) was used to refer to infrastructure building (Komatsu 2018, Fujita 1993, Matsuura 2020).

*Doboku* reappeared from the Meiji era (1868-1912) onwards, displacing *fushin* of the Edo period as the more commonly-used term. A search of the *Yomiuri Shimbun* newspaper database, for example, reveals 3,327 instances of the term *doboku* up to 1989, with the first appearance on June 14, 1875. By contrast, there are 224 instances of *fushin*, with the term falling out of everyday use (except as an historical term) from 1941 onwards. The Japanese term *doboku* (written in Chinese characters) was also adopted into the Chinese language in the 20th Century (Chen 1997).

What led to this revival in the use of the term *doboku*? The Meiji government formed in 1968 worked to solidify Japan’s centralized national system of government in order to resist external pressure from European countries and the United States. The government strived to build a new nation under the ideals of enriching the nation, strengthening the military, and encouraging new industries. By enhancing Japan’s economic and military strength, the government aimed to build a modern nation. The encouragement of new industries was a way to achieve this aim, and consisted of policies to protect and foster Japan’s industries. The measures that composed the substance of these policies were many and diverse, but one of the main pillars was the building of infrastructure nationwide. Specifically, the government actively introduced technologies from Europe and the United States, where the industrial revolution had brought modernity, and pursued the building of social infrastructure such as rivers, railways, and ports as public works. As a result, the modernization of Meiji Japan was accomplished over a short period of time, over a broad area, and in multiple fields simultaneously (Ishizuka 1973, Kitagawa 2020).

The *Mimbukan Doboku-shi* (loosely translated as the Public Affairs Civil Engineering Office) was established in 1869 as a body to administer infrastructure under the Meiji government. Subsequently, after various twists and turns, the *Mimbukan Doboku-shi* was restructured into the *Doboku-kyoku* (Civil Engineering Office) of the Ministry of Home Affairs. It continued to oversee the administration of infrastructure until 1941. The revival of the term *doboku* is attributable to its use in the names of these administrative bodies under the new Meiji government (Twenty Year History of the Ministry of Construction Editing Committee ed. 1968).

Why, then, did the Meiji government adopt the term “*doboku*” from the Heian era, when “*fushin*” had been in general use throughout centuries of samurai governments? Regarding this point, Tatsuyuki Fujita (1993) cites the fact that the Meiji government was formed on the basis of the Decree for the Restoration of Imperial Rule (which abolished samurai government and reestablished a political system centered on the Japanese Emperor). He conjectures that the new government therefore avoided the term current during the era of samurai government, opting rather for “*doboku-shi*,” the term used in the Ritsuryo system current during the Heian period (Fujita 1993:154). Whatever the case, “*doboku*” was not coined as a term to translate “civil engineering” from English. Rather, it became commonly adopted as the translation of “civil engineering” as a result of historical chance.

Another important factor to consider that led to the term “doboku” taking root in the lexicon of modern Japanese society was the establishment of the Japan Society of Civil Engineers (*Doboku Gakkai*). The Japan Society of Civil Engineers traces its roots back to the engineering society formed by the first graduates of the Imperial College of Engineering in 1879, with the aim of promoting engineering research and the exchange of knowledge. At the time, the society covered all fields in engineering, including all seven disciplines taught in the Imperial College of Engineering: civil engineering (*doboku*), electrical engineering, mechanical engineering, construction (architecture), chemical engineering, mining, and metallurgy. With the subsequent trend towards more clearly delineated specializations, however, independent societies were progressively established in each engineering field: the Japan Mining Institute (1885), the Architectural Institute of Japan (1886), the Institute of Electrical Engineers of Japan (1888), the Institute of Shipbuilding and The Japan Society of Mechanical Engineers (1897), and the Institute of Industrial Chemistry (1898). As a result, the remaining members of the engineering society mostly comprised those specializing in civil engineering. It was in this context that the Japan Society of Civil Engineers (JSCE) was established in 1914 (JSCE ed. 2014).

In his inaugural speech, the first Chairman of the JSCE, Koi Furuichi, responded to the aforementioned trend towards the clearer separation of specializations by arguing that “integration is the essence of civil engineering (*doboku kogaku*).”

The Society must therefore not limit the scope of its research to civil engineering (*doboku*) alone, but must expand it to include all aspects of engineering. Unlike the previous engineering society, however, which undertook a balanced approach to research across all engineering disciplines, all of the Society’s research must focus on civil engineering (*doboku*). In other words, the Society’s research must expand outwards in all directions from the core of civil engineering (*doboku*). This is the method and degree of specialization that I advocate for the Society (Furuichi 1915:3-4).

The overall trend towards specialization was unstoppable, however, and the concept of “*doboku*” was shaped through differentiation with other engineering fields, especially the field of architecture that likewise emerged during the Meiji era. For example, as described above, under the Meiji government, the building of infrastructure was made the responsibility of administrative bodies with the term “*doboku*” in their titles, while the Council of Accounts—a different body altogether—was made responsible for public architecture. Thus the administration of infrastructure development was clearly separated from the construction of public buildings. As a result, “*doboku*” (civil engineering) and “*kenchiku*” (architecture) were framed as entirely separate concepts under Japanese law, referring to the construction of infrastructure and buildings, respectively. Specifically, Japanese “*doboku*” engineers design and build roads, dams, bridges, and the like, but do not handle the construction of buildings. By contrast, the concept of civil engineering in English refers not only to infrastructure but also includes buildings. This fact also points to the misunderstandings that may arise from directly translating “doboku” as “civil engineering” (Yoshimi 2017).

**3. The lack of a philosophy of ‘*doboku*’**

In this way, the concept of “*doboku*” emerged from the names given to administrative bodies in the Meiji government. What, then, was the philosophical and ideological base that underpinned this concept? In other words, what was seen as the purpose of building infrastructure, and what were the perceptions of how it should be done? I would like to consider this question through a comparison with the English term “civil engineering,” which also refers to the building of infrastructure, and the term “*fushin*,” used up until the Edo period.

　“Civil engineering” is a relatively new concept, only taking root in English in the 18th and 19th Centuries. “Engineering” originally referred to “military engineering”—the manufacture of military equipment and facilities such as cannons, warships, assault towers, and the like. “Civil engineering” was coined in England, the home of the industrial revolution, as a concept differentiated from previous military engineering.

The Englishman John Smeaton (1724-1792) is said to be the first person in the world to call themselves a “civil engineer.” In 1771, Smeaton established The Society of Civil Engineers, making the role of civil engineers—building infrastructure associated with the lives of civilians, such as roads, water supply, canals, etc.—known to society. The Institution of Civil Engineers was subsequently established in 1818 and granted Royal Chartership in 1828, formally recognizing civil engineering as a profession. The definition of “civil engineering” presented in the Charter of the time—“the art of directing the great sources of power in nature for the use and convenience of man”—continues to inform the concept of civil engineering worldwide today (Takegami 2013, The Institution of Civil Engineers ed. 1978, Watson 1988).

In this way, the idea of civilian engineering was at the heart of the concept of the “civil engineer” that emerged in 18th Century England. These were the civilian engineers that replaced the artisans and builders who had previously been directly contracted by business operators to build stone bridges and similar projects. Unlike their predecessors, civil engineers incorporated the latest technologies produced by the industrial revolution to undertake the construction of large-scale, complex projects such as canals. Instead of being contracted directly by business operators, they acquired permits and certification from government administrative bodies, performing a role similar to that of a consultant by directing subcontractors in various trades and overseeing whole projects, from the planning and design stage to construction management (Kitagawa 2020).

Incidentally, “*mintaikei*,” a translation of “civil engineer” that appears in an English-Chinese dictionary from the late Edo period roughly means “civilian project manager” (Lobscheid ed. 1886). This indicates the historical process whereby the work of measuring and cartography became independent of the military and shifted into the civilian domain, and hints at the extensive range of duties and authorities exercised by civil engineers. By contrast, English-Japanese dictionaries compiled after the start of the Meiji era translate “civil engineering” as “*dobokujutsu* (*doboku* techniques)” (Seki ed. trans. 1884) and “*doboku kogaku* (*doboku* engineering)” (Nomura & Shimoyama 1886). This change in translation is thought to simply represent the result of the adoption of the term “doboku” in the names of government administrative bodies from the Meiji era onward, over and above any consideration given to the connotations of the word “civil” in English. In fact, “*doboku*” is variously translated in Japanese-English dictionaries of the time as “building” (Hashio ed. trans. 1887), and “engineering work” (Brinkley et al. ed. 1896), with no reference at all to the concept of “civil.” In other words, the correspondence between “*doboku*” and “civil engineering” generally accepted today is but the result of historical chance.

Next, let us turn to the term “*fushin*,” used to denote the building infrastructure up to the end of the Edo period. “Fushin” is composed of the two characters “*fu* (*amane*),” meaning common or general, and “*shin* (*kou*),” meaning to beg or request. The term came from the Zen Buddhism of China’s Tang dynasty, when temples would request the general population to perform duties such as picking flowers for the Flower Festival (to celebrate Buddha’s birthday), airing books (to prevent insect infestation), picking tea leaves, and end-of-year cleaning, or where practitioners from Zen temples would enter the community en masse to engage in labor. Subsequently, in Japan, the term became linked to *ritagyo* (altruistic practices), one of the most important practices in Mahayana Buddhism for monks to attain the salvation of mankind.

For example, the monk Gyoki (668-749), active from the Asuka period to the Nara period, traveled on foot across Japan, collecting funds and labor far and wide through “*fushin*” to promote infrastructure projects around the country, in areas such as irrigation, water supply, reservoirs, roads, ports, and bridges. His achievements were recognized in 743 when he was appointed Kanjin (an official authorized to collect donations for a temple) by Emperor Shomu for the construction of the Great Buddha statue in Todai-ji Temple. He succeeded in collecting a massive amount of money and labor, and completing the statue. The activities of Buddhist monks such as Gyoki were partly responsible for the adoption of the term “*fushin*” to refer to works such as the construction of temples and shrines, as well as roads, bridges, and other structures, through the communal labors of the local population, and thence, to infrastructure projects in general.

In this way, the term “*fushin*” does not refer simply to the building of infrastructure. As a concept, it also connotes thoughts and beliefs regarding the purpose of infrastructure projects and the way that they should be carried out. In other words, “*fushin*” implies a form of social welfare activity based on the Buddhist idea of “*ritagyo”* (altruistic practices), and connotes the idea that infrastructure projects should be carried out through a joint effort by the local community. This ideology can also be observed in the book *Yumenoshiro (Instead of Dreams)* by the merchant-scholar Yamagata Banto, written in the late Edo period.

“Fushin” is composed of the characters meaning common and request. It means to ask for and receive help. —Omitted—When a carpenter or laborer is employed to build a building, this is called construction. It is not *fushin*. (Quoted from Sakado 2008.)

This comparison between the meanings of the two terms “civil engineering” and “*fushin*” is instructive in a number of ways. First, “*doboku*” refers to public works projects directed by governments and public administrative bodies: private-sector engineers and local communities are not primarily responsible for their execution. In order to catch up with countries in Europe and the United States—the ultimate challenge for Meiji Japan—it was more effective for public administrative bodies to systematically absorb and implement the latest technologies. Thus the assessment of “*doboku*” as “engineering by bureaucrats” (Muramatsu 1985).

Second, “doboku” itself was therefore devoid of philosophy. According to Daijiro Kitagawa, the power of science and technology was limited in Japan until the end of the Edo period, due to the use of traditional materials such as earth, wood, and stone, as well as only rudimentary mathematical analysis. As a result, people did not rely overly on technology, aiming instead for more inclusive solutions by mobilizing all of the wisdom and knowledge of nature and society that experience allowed them. These solutions were perhaps not perfect, but they displayed the conceptual ability of people able to coexist with contradictions and inconsistencies. Modern engineering, by contrast, contains within it the aspiration to control nature through the power of science (Kitamura 2020).

Of course, modern engineering technology has close associations with social thought, as illustrated by the involvement of Marxists and socialists such as William Morris and John Ruskin in town planning in England. In Japan, however, from the Meiji era onward, the introduction of modern engineering technology has been accompanied by the abandonment of traditional technologies and the philosophies attached to them. Ryotaro Shiba has characterized this attitude as “the exaltation of technology” (“*gijutsu sukoshugi*”—literally “technological sublimism”), describing Japan’s lack of philosophy or beliefs regarding how the massive power of *doboku* technology should be used, or how the country should be shaped (Shiba 1996:151-152). The philosophy and beliefs attached to “civil engineering” and “*fushin*” have been forced to fade into the background, at least in as far as the building of infrastructure has become its own goal through the “*doboku*” concept.

**4. Negative images of “*doboku*”**

In this way, “*doboku*” was a concept focused on technology, without incorporating a philosophy of how or why this technology should be used. In other words, not enough effort was made to establish its social purpose. The question of “what is *doboku*?” was therefore a key issue from the start, especially for the JSCE. In the self-reflective process of addressing this question, the problem of negative images of “*doboku*” became a focus of attention. For example, in 1915, immediately after the JSCE was formed, its members expressed concern over the negative images of “scandal” and “impurity” that had become associated with the word “*doboku*.” In 1950, Haruo Matsuo conjectured that the crude and vulgar impression associated with “*doboku*” was due to the meaning of the word in ancient Chinese and Japanese: “careless or unadorned in appearance.” He goes on to describe the people employed in *doboku* as follows.

Those employed in *doboku* simply provided labor and were as a whole devoid of culture, education, or refinement.... This was not only the case in the distant past. Has it not also been the case until relatively recently? Building and civil engineering contractors are often described on the level as *pan-pan* girls [prostitutes mainly catering to Japanese and US military officers in the confusion of postwar Japan]. Until quite recently, *doboku* was regarded as the standard destination for engineering students who were more interested in drinking than study (Matsuo 1950:1).

Why, then, did “*doboku*” become associated with these negative images? Satoshi Nakao addresses this question from an ethnological perspective, pointing out that historically, groups in Japanese society that were subject to discrimination, such as the “*hinin*,” “*sakanomono*” and “*kawaramono*,” tended to be involved in projects to build infrastructure. He mentions the concept of “*bondo*” from the Heian period (794-1185) as the background to this tendency. This refers to the idea that the act of changing the natural shape of the ground through human involvement would invoke the wrath of the local gods. Nakao cites the historical association of groups subject to discrimination with sorcery and supernatural ability as a possible factor underlying their involvement in infrastructure projects. In other words, these groups had the ability to overcome the danger of “*bondo*” (Nakao et al. 2015, Nakao 2018). This idea also casts light on the historical involvement of Buddhist monks in building infrastructure, from a different perspective to the concept of “*fushin*.” Hideyuki Ichikawa, for example, suggests that the leading role played by Buddhist monks in infrastructure projects was attributable to their ability to negotiate with, and appease, the local gods (Ichikawa 2009).

Another source of the negative images associated with “doboku” is criticism of public works. As described above, from the Meiji era onwards, “doboku” projects came to refer to public works projects directed by administrative bodies. This trend continued during the postwar period from 1945 onwards. Infrastructure projects such as forest and river management, the construction of roads and expressways, ports and airports, the Shinkansen and subways, electrical power, water supply, and sewerage were progressively implemented, based on blueprints including the Comprehensive National Development Plan. This infrastructure underpinned Japan’s rapid economic growth in the 1960s.

At the same time, however, criticism of public works, beginning with the movement to oppose the construction of the Nagara River estuary weir, went beyond the debate on individual perspectives such as “development” and the “environment,” and emerged as a social issue, anticipating later movements. This criticism of public works was not limited to technological aspects, but also comprehended social issues, as well as criticism of aspects such as the high-cost structure of public works, the nature of the construction industry, and the public works decision-making process. It became an opportunity to ask broad questions about how public works should be undertaken (JSCE ed. 2014).

On this point, Kosuke Tanaka has conducted a quantitative analysis of the treatment of public works in newspapers in postwar Japan. According to this analysis, public works emerged as the subject of newspaper reporting in the 1970s, Around the time of the Kakuei Tanaka government. Newspapers initially presented a balance of critical and positive opinions, but critical opinions became dominant from the 1980s onwards, reaching a peak during the 2000s (Tanaka 2016). Criticism of public works can be summarized under the following through types. The first is criticism of the structure of vested interests associated with public works: specifically, criticism of the opaque systems that governed public works, including aspects such the cozy relationship between politics and public works, collusion, and the movement of public officials into the private sector, which gave rise to the derogatory term “*doken kokka*” (the “civil engineering state”). The second is criticism related to the impact on the natural environment. It takes issue with the destruction of nature arising from projects such as estuary weirs, dams, and the reclamation of tidal flats. The third is criticism related to public financing, which blames the reckless implementation of public works for a deterioration in Japan’s fiscal deficit and debt situation (Tanaka 2016, Yamaoka 2014).

In 1987, the JSCE held a study group entitled “A Consideration of the Arguments for Renaming *Doboku*,” in response to this trend. Those who advocated renaming the term “*doboku*” argued that, among other things, “the term has a bad image in general” and that “(therefore) promising young students do not choose to study in this field.” No conclusion was reached, however, regarding a new term that could replace “*doboku*” (Nakase & Kobayashi 1987:24, Fujita 1993:147). Instead, the JSCE designated November 18, 1987 “*Doboku* Day” as part of its efforts to improve the image associated with the term.

At the same time, university civil engineering (*doboku*) departments attempted to remedy the decline in the number of prospective students by changing their departmental names to various combinations of the words “environmental” “social” and “urban” (although the term “civil engineering” was retained in the English departmental names)—a trend that continued until around the turn of the millennium (Hitomi et al. 2018). There have also been attempts to renew the image associated with the Chinese characters for “*doboku*” in Japanese by rewriting them in a Japanese phonetic syllabary (katakana). In recent years, these efforts have developed into “*doboku* entertainment” aimed at the appreciation of massive (*doboku*/civil engineering) buildings and structures. The effectiveness of these efforts, however, has yet to be ascertained.

**5. Attempts to establish a philosophy of “*doboku*”**

In this way, even as the term “*doboku*” is plagued by negative images—so much so that an academic society and numerous university departments considered or actually proceeded in changing their names—there have also been attempts to establish a philosophy of “*doboku*.” These efforts take the form of an explanation of the historical origin of the concept of “*doboku*” adopted early in the Meiji era, and attempt to establish a new philosophy: an initiative that, in reality, corresponds to the “invention of tradition” (Hobsbawm & Ranger 1983).

For example, the *Civil Engineering Handbook (Doboku Kogaku Handobukku)* compiled by the JSCE in 1989 cites the ancient Chinese theory of Yin-Yang and the Five Elements—wood, fire, earth, gold, and water—of which all things are composed, to expound the idea that earth (*do*) is the central element out of the five, while wood (*boku*) represents the season of spring. Thus, in the concept of “*doboku*,” “the two elements of earth (*do*) and wood (*boku*) were chosen to represent new, advanced technologies that would be crucial for humans and nature” (JSCE ed. 1989:5).

In 2002, Norihito Tambo, then Chairman of the JSCE, suggested that the origin of the term “*doboku*” lies in the expression “*chikudo koboku*” (literally, construction from earth and wood), which appears in the ancient Chinese text Huainanzi (Tambo 2002). Satoshi Fujii has adopted this theory of “*chikudo koboku*” in his attempt to create a systematic philosophy of *doboku*. According to Fujii, “*chikudo koboku*” refers to the work of saints to improve living conditions by piling earth (*chikudo*) and building with wood (*koboku*), to save the people struggling to survive in a harsh environment and enable them to live in safety and security. Based on this interpretation, Fujii refutes the explanation in the *Civil Engineering Handbook (Doboku Kogaku Handobukku)*, as follows.

This suggests that not only is the work of *chikudo koboku* = *doboku* completely different from the self-interested actions of businessmen only interested in their own welfare or the contemptible acts of politicians hungry for power: it is the exact opposite. It is, in fact, “*ritagyo”* (altruistic practices) itself, practiced by those who seek to ease the labors of the populace: by “saints” and “princes.” From this, we can see that *doboku* is far from the concept imagined in the recent *Civil Engineering Handbook*, or by those who seem determined to denigrate it (Fujii 2014:10).

Fujii goes on to interpret the English term “civil engineering” as the work of building civilization. “The work of gradually improving society—advancing it from a barbarian society where people steal from each other at will, and making it gradually more ‘civil’—is referred to as ‘civilization.’ This, then, is the work of ‘civil engineering’ (*doboku*)” (Fujii 2014: 121). In this way, Fujii emphasizes the altruism and civilization associated with the concept of “*doboku*.” Others have also lauded the concept of “*doboku*” as implying the aspiration to coexist with nature that was lacking from the modern Western European concept of “civil engineering.” Mariko Takegami, for example, writes as follows.

This word [“*doboku*”] brings forth primitive images of the work that humans have engaged in since the beginning of time: standing on the earth (“*do*”), the basis of all life, and using their ingenuity and skill to create useful things for everyday life. It anticipates the awareness of civil engineers today, as they face issues such as the global destruction resulting from human technologies and the bankruptcy of modernist perceptions of nature. Does it not also represent another way forward in the relationship between human technology and nature: an alternative to conquest? (Takegami 2013: 237).

I am not concerned with the historical accuracy of these perceptions. The important point in the context of this paper is rather that members of the JSCE and others have continued to consider the question ‘what is “doboku”’—in other words, how should it be pursued, and to what purpose? Even in recent years, the JSCE has established the “Roundtable on Public Peace Research” to consider initiatives aimed at achieving ideal “*doboku*,” including 1) the improvement and enhancement of communication with society, 2) the establishment of a broad and comprehensive perspective on the social contribution made by the study of *doboku*, and 3) a reevaluation of the relationship between doboku and society and the economy, and the recognition of new domains as the essence of the study of *doboku* (JSCE Roundtable on Public Peace Research 2018). Research into the concept of “doboku” will no doubt continue into the future, in terms of its involvement in politics, economics, society, and the environment.

**6. Conclusion: “*doboku*” inverted**

In this paper, I have presented a summary of the emergence and development of the concept of “*doboku*.” What, then, are the implications of this concept in the context of development assistance? The interesting point here is that the negative image of “doboku” as “crude and muddy” is conversely perceived in a positive light on the front line of development assistance.

Technical cooperation to build infrastructure is one of the main pillars of Japan’s official development assistance (ODA). This is cooperation through the work of individuals aimed at increasing the comprehensive capabilities of people in developing countries, to enable these countries to deal with the development challenges they face. JICA, the organization charged with implementing Japan’s ODA, has established programs for the dispatch of Japanese volunteer workers to engage in technical cooperation overseas. These include the Japan Overseas Cooperation Volunteers (JOCVs).

The concept of “*gemba*” (“on-site” work or fieldwork “on the ground”) is emphasized in development assistance. Specifically, this refers to efforts to work together with the local communities who are the recipients of the assistance. For example, the JOCVs are aimed at “working together with local communities in developing countries, cooperating to develop the local economy and society” (Outline of the Japan Overseas Cooperation Volunteers). The idea of volunteers engaging in crude, unrefined labor—getting their hands dirty together with the locals—is a crucial part of these efforts to work together with local communities. For example, Hirokazu Ito, who worked on infrastructure development in Myanmar (Burma) during the 1950s as part of Japan’s postwar compensation, describes how Japanese engineers, unlike those from Europe or the United States, actually lived inside the local factories. He recalls the positive perception of Japanese engineers expressed by local laborers, as follows.

In the past, the British built roads here, but the British masters never worked with us together in the jungle. There was only a Burmese foreman there to oversee the work. We’re happy because the Japanese masters are working together with us. If the Japanese masters work together with us, we're happy to do any amount of work. With the Japanese masters, we’re sure to complete the road we’re building now (Ito 1963:155).

This is a good illustration of the doctrine of Japanese-style development assistance: working in the mud together with the local laborers is a way to gain their trust, and will lead to the successful completion of the development project. This doctrine is also shared by private-sector aid organizations. For example, according to Watanabe, who analyzed the assistance activities of the Japanese Organization for Industrial, Spiritual and Cultural Advancement (OISCA) in Myanmar, many of the OISCI's Japanese staff described their assistance work as “crude and muddy.” Based on this, Watanabe characterizes the OISCA’s central ethical standpoint in terms of “muddy labor.” She identifies “muddy labor” as an important way for Japanese staff and local people to come together across cultural, national, and personal boundaries (Watanabe 2019:Ch.4).

In this way, development assistance work “on the ground” highlights the value of practical knowledge concerning “*doboku*,” and inverts the negative image of “*doboku*” as “crude and muddy.” This practical knowledge of “*doboku*” has been thoroughly ignored by previous research on the image and philosophy of the term, examined above. Conversely, it is only by removing ourselves from specifically Japanese issues such as the ethnological background and criticism of public works that we can see a picture emerging of the unique characteristics and potential of the practical knowledge embodied in “*doboku*.” In this sense, by expanding our perspective to include its work in development assistance, we can more fully address the question: “what is *doboku*”?

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