

THE TECHNOLOGICAL IMAGINARY OF IMPERIAL JAPAN, 1931-1945

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# THE TECHNOLOGICAL IMAGINARY OF IMPERIAL JAPAN, 1931-1945

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“Technology” has often served as a signifier of development, progress, and innovation in the narrative of Japan’s transformation into an economic superpower. Few histories, however, treat technology as a system of power and mobilization. This dissertation examines an important shift in the discourse of technology in wartime Japan (1931-1945), a period usually viewed as anti-modern and anachronistic. I analyze how technology meant more than advanced machinery and infrastructure but included a subjective, ethical, and visionary element as well. For many elites, technology embodied certain ways of creative thinking, acting or being, as well as values of rationality, cooperation, and efficiency or visions of a society without ethnic or class conflict. By examining the thought and activities of the bureaucrat, Mōri Hideoto, and the critic, Aikawa Haruki, I demonstrate that technology signified a wider system of social, cultural, and political mechanisms that incorporated the practical-political energies of the people for the construction of a “New Order in East Asia.” Therefore, my dissertation is more broadly about how power operated ideologically under Japanese fascism in ways other than outright violence and repression that resonate with post-war “democratic” Japan and many modern capitalist societies as well.

This more subjective, immaterial sense of technology revealed a fundamental ambiguity at the heart of technology. While many elites encoded technology as the production of all aspects of life, some articulated technology as unexpected invention, transformative action, and creative self-formation.

Such possibility was found within the very technologies that systematically structured society. By examining the thought and activities of the philosopher, Nakai Masakazu, I illuminate another notion of technology as cultural practices of invention that tactically employed the technologies mobilizing everyday life. Thus, I also explore other notions of the political in a context where politics was increasingly incorporated into the wartime effort through technology.

## **BIOGRAPHICAL SKETCH**

Aaron Stephen Moore earned his B.A. in History at the University of Virginia in 1994. In 1996, he entered the Masters Program in Asian Studies at Cornell University, earning an M.A. in 1999. In the same year, he joined the doctoral program in History at Cornell University and was admitted to candidacy in 2002. He has been a Graduate Research Fellow at Humboldt University in Berlin (2002-2003) and at Tokyo University of Foreign Studies in Tokyo (2003-2004). His areas of study are modern Japanese and German intellectual history.

*In memory of the anonymous donor who gave me the gift of life*

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## INTRODUCTION

### *Japan as Technological Superpower*

In December 1990 the Science and Technology Agency and the National Institute of Science and Technology Policy published a report entitled *Historical Review of Japanese Science and Technology Policy*, a “post-war comprehensive history of Japan’s science and technology policies.”<sup>1</sup> The purpose of the report was to educate the world about how Japan’s science and technology policy had played an essential role in its economic and social development and moreover to reflect on how Japan could adopt policies “aimed at not only creating a wealthy nation but a wealthy world as well.”<sup>2</sup> The report was written during the 1980s “economic bubble” period when Japan was viewed as the world leader in technology and technological innovation in areas such as consumer electronics, automobiles, semiconductors, manufacturing technology, and robotics. Numerous books detailing the Japanese government’s “third-way” approach between the free market and the planned economy towards nurturing a technological society appeared during this time with sensational titles such as *The Technopolis Strategy: Japan, High Technology, and the Control of the Twenty-first Century* and *Japan as a Scientific and Technological Superpower*.<sup>3</sup> Fumio Kodama, Dean and

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<sup>1</sup> *Historical Review of Japanese Science and Technology Policy*, ed. The Commission on the History of Science and Technology Policy, iii (Tokyo: Society of Non-Traditional Technology, 1991).

<sup>2</sup> *Ibid.*, i, iii.

<sup>3</sup> Sheridan M. Tatsuno, *The Technopolis Strategy: Japan, High Technology, and the Control of the Twenty-first Century* (New York: Prentice Hall Press, 1986) and Justin L. Bloom, *Japan as a Scientific and Technological Superpower* (Potomac, Md.: Technology International and Springfield, Va.: U.S. Dept. of Commerce, National Technical Information Service, 1990). There is a large amount of literature in English on Japan as a “technological superpower.” Here is a sample of some of the main titles, many of which are U.S. government sponsored: *Japan’s High Technology Industries: Lessons and Limitations of Industrial Policy*, ed. Hugh

Professor of Engineering Management at the Shibaura Institute of Technology, described the Japanese model of promoting technological innovation as a global “techno-paradigm shift,” and even went so far as to credit the Japanese cassette tape recorder, VCR, and fax machine for making possible the Iranian Revolution, the Philippine Revolution, and the Tiananmen Uprising.<sup>4</sup> Thus in the 1980s and 1990s Japanese technology and technology policy was widely seen as a progressive force for social development, economic prosperity—and in some cases, democratic values.<sup>5</sup>

Richard Samuels calls the Japanese state’s ideology regarding technology, “techno-nationalism.” Techno-nationalism is “the belief that technology must be indigenized, diffused, and nurtured in order to make a nation strong,” he writes.<sup>6</sup> He dates techno-nationalism from the very beginning of the Meiji Period with the Japanese government’s aggressive pursuit of “Rich Nation, Strong Army” (*fukoku kyōhei*) and “Production

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Patrick and Larry Meissner (Seattle: University of Washington Press, 1986), *A High Technology Gap?: Europe, America, and Japan*, ed. Andrew J. Pierre, et. al. (New York: Council on Foreign Relations, 1987), Jean M. Johnson, *The Science and Technology Resources of Japan: A Comparison with the United States* (Arlington, VA : National Science Foundation, Division of Resource Science Studies, Directorate for Social, Behavioral, and Economic Sciences, 1997), Sheridan M. Tatsuno, *Created in Japan: From Imitators to World-Class Innovators* (New York: Harper & Row, 1990), David W. Cheney and William W. Grimes, *Japanese Technology Policy: What’s the Secret?* (Washington, D.C.: Council on Competitiveness, 1991), and *Japan’s Growing Technological Capability: Implications for the U.S. Economy*, ed. Thomas S. Arrison, et. al. (Washington, D.C.: National Academy Press, 1992).

<sup>4</sup> Fumio Kodama, *Analyzing Japanese Advanced High Technologies: The Techno-paradigm Shift* (London and New York: Pinter Publishers, 1991), 173-174.

<sup>5</sup> With the burst of the Japanese economic bubble in 1989, however, the discourse around Japanese technology has gradually shifted to a U.S. neo-liberal paradigm aggressively pursued by Prime Minister Koizumi Junichirō, which views the free market as the best determiner of technological innovation and development. But while the Japanese government has pursued some degree of market liberalization, privatization, and spending cuts, the tradition of state-sponsored technology development still remains strong.

<sup>6</sup> Richard J. Samuels, *“Rich Nation, Strong Army”: National Security and the Technological Transformation of Japan* (Ithaca, NY: Cornell University Press, 1994), x.

Promotion” (*shokusan kôgyô*) as official policies.<sup>7</sup> Moreover while the Japanese government report described above stresses the post-war as the period when Japan truly developed an independent science and technology policy for national development, Samuels emphasizes the importance of a “military-led national system of innovation” and policies such as “Nation-Building through Technological Development” (*gijusu rikkoku*) during the war and their continuity with the post-war “commercial-led national system of innovation.”<sup>8</sup> He demonstrates how over the course of its modern history the Japanese state has consistently promoted technological autonomy, the diffusion of technical knowledge to all areas of the economy, and the nurturance of a balanced technological development by means of managing competition. His overall conclusion is that “techno-nationalism” was “admirable, rational, flexible, and ought to be embraced—mutatis mutandis—in the United States as well.”<sup>9</sup>

For the Japanese government and its admirers, technology and technology policy represents a modernizing, progressive force that has been essential to Japan’s national development and security throughout its modern history. Technology for them is socio-politically neutral and has been instrumentally used and promoted by the Japanese government to achieve prosperity, innovation, and efficiency. The proper “techno-economic paradigm” or “cluster of institutions and ideas about how to innovate” simply provides the instrumental means for developing technology and therefore a “rich and strong nation.”<sup>10</sup> Japan’s particular “techno-economic paradigm”

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<sup>7</sup> Ibid., 37.

<sup>8</sup> Commission, 1. Samuels, 30.

<sup>9</sup> Ibid., x.

<sup>10</sup> Ibid., 16.

helped it modernize and become a technological superpower. This familiar story of the Japanese state's farsighted instrumental development of technology and a new techno-economic paradigm is a pillar of Japan's modernization narrative built up by both Japanese and U.S. intellectuals alike.<sup>11</sup>

### ***Technology as Domination***

In twentieth century Europe there has been a rich literature on the political nature of technology, particularly in Critical Theory. An overview of some of the main positions of this debate will help us call into question the predominant view of technology as a progressive, modernizing force with no socio-political content. Max Weber was one of the earliest and most significant thinkers who highlighted the non-neutrality of technology and technological rationality.<sup>12</sup> In his famous work, *The Protestant Ethic and the Spirit of Capitalism*, Weber traces how the Puritan's disciplined, ascetic, and efficient work ethic loses its religious justification and begins to permeate all spheres of capitalist society, culture, and the economy. This new disenchanted order became "bound to the technical and economic conditions of machine production which to-day determine the lives of all the individuals who are born into this mechanism, not only those directly concerned with

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<sup>11</sup> Even Tessa Morris-Suzuki's comprehensive study of Japanese technological development emphasizes the particular social networks that enabled the diffusion of technology. Tessa Morris-Suzuki, *The Technological Transformation of Japan: From the Seventeenth Century to the Twenty-first Century* (Cambridge: Cambridge University Press, 1994).

<sup>12</sup> Karl Marx discusses how exploitation of labor power is inherent to the very process of mechanization of the productive forces (i.e. technology); however, his examination is limited to the factory rather than society as a whole. See Chapter 15 "Machinery and Modern Industry" in Karl Marx, *Karl Marx Frederick Engels Collected Works, Volume 35, Karl Marx: Capital, Vol. 1* (New York: International Publishers, 1996), 374-508.

economic acquisition, with irresistible force.”<sup>13</sup> Purposive and instrumental forms of activity, organization, and technology became embodied in large bureaucracies and administrations building an “iron cage” of reason whereby people are transformed into “specialists without spirit, sensualists without heart.”<sup>14</sup> Formal systems of rationality that optimize calculability and control, and are concerned with “efficiency of means” rather than “choice of ends” come to dominate people’s everyday lives, according to Weber.<sup>15</sup> Thus for him the formation of a technological society is not so much a linear march of progress but a de-humanizing and inescapable process of rationalization.

In the 1960s, Herbert Marcuse went even further than Weber in specifically linking the spread of technological rationality to the naturalization of capitalist relations of domination. He writes:

Today, domination perpetuates and extends itself not only through technology but *as* technology, and the latter provides the great legitimation of the expanding political power, which absorbs all spheres of culture.

In this universe, technology also provides the great rationalization of the unfreedom of man and demonstrates the “technical” impossibility of being autonomous, of determining one’s own life. For this unfreedom appears neither as irrational nor as political, but rather as submission to the technical apparatus which enlarges the comforts of life and increases the productivity of labor.<sup>16</sup>

Technological progress means the entrenchment of capitalist forms of mobilization and even discourse becomes “limited to posing and resolving

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<sup>13</sup> Max Weber, *The Protestant Ethic and the Spirit of Capitalism*, tr. Talcott Parsons (London: Routledge, 1992), 181.

<sup>14</sup> *Ibid.*, 181, 182.

<sup>15</sup> Andrew Feenberg, *Critical Theory of Technology* (New York: Oxford University Press, 1991), 68.

<sup>16</sup> Herbert Marcuse, *One Dimensional Man* (New York: Beacon Press, 1968), 158.

technical problems.”<sup>17</sup> Thus technology is by no means neutral but affects the totality of social relations. “When technics becomes the universal form of material production, it circumscribes an entire culture; it projects a historical reality—a ‘world’,” Marcuse writes.<sup>18</sup> People therefore become “one-dimensional” and critical consciousness is subverted.

Jürgen Habermas extended Marcuse’s rather abstract view of technology as legitimating political power by pointing to two important changes to liberal capitalism that occurred in the early twentieth century: “an increase in state intervention in order to secure the system’s stability, and a growing interdependence of research and technology, which has turned the sciences into the leading productive force.”<sup>19</sup> First, the nature of politics changed as the state took up the role of intervening in the economy by maintaining growth, a degree of social security, increased consumption, and stable employment, for instance. “[Politics] is oriented toward the elimination of dysfunctions and the avoidance of risks that threaten the system: not, in other words, toward the *realization of practical goals* but toward the *solution of technical problems*,” Habermas writes.<sup>20</sup> As a result, the public sphere becomes depoliticized, and concerned more with the proper functioning of the system rather than any practical vision of the “good life.”<sup>21</sup>

Second, with science and technology becoming a leading productive force, “a perspective in which the development of the social system *seems* to

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<sup>17</sup> Feenberg, 70.

<sup>18</sup> Marcuse, 154. Quoted in Feenberg, 70.

<sup>19</sup> Jürgen Habermas, “Science and Technology as ‘Ideology’” in Jürgen Habermas, *Toward a Rational Society: Student Protest, Science, and Politics*, tr. Jeremy J. Shapiro (Boston: Beacon Press, 1970), 100.

<sup>20</sup> *Ibid.*, 103. Brackets mine.

<sup>21</sup> *Ibid.*, 103, 104.

be determined by the logic of scientific-technical progress” arises.<sup>22</sup> “Purposive-rational action” expands outside the realm of economic activity and is “reproduced at the level of social systems” into which people are functionally integrated. Class conflict is diffused into the “manipulative compulsions of technical-operational administration” that manifests itself less as a force of domination than as one of incorporation and mobilization.<sup>23</sup> In sum the essence of this pervasive “technocratic consciousness” is “the elimination of the distinction between the political and the technical.”<sup>24</sup> In response, Habermas insists on the autonomy of “communicative action” and calls on “removing restrictions on communication” so that people can reassert their concern with practical issues (i.e. the “goals of life activity”) rather than technical ones.<sup>25</sup> Only rational communication and the assertion of universal democratic principals can reign in the excesses of a depoliticizing technocratic consciousness, according to Habermas, and therefore ultimately realize the “project of modernity.”<sup>26</sup>

### ***Re-Conceptualizing Technology in Japan***

Building on Weber and Marcuse, Habermas’s insights into the non-neutrality of technology and its role in incorporating the practical-political into the technical is useful in problematizing the standard narrative of technology as a progressive, modernizing force of development and prosperity; however

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<sup>22</sup> Ibid., 105.

<sup>23</sup> Ibid., 107, 109.

<sup>24</sup> Ibid., 113.

<sup>25</sup> Ibid., 120.

<sup>26</sup> Jürgen Habermas, *The Theory of Communicative Action*, vols. 1-2, trans. Thomas McCarthy (Cambridge, MA: MIT Press, 1987). Jürgen Habermas, “Modernity—An Incomplete Project,” trans. Seyla Benhabib in *The Anti-aesthetic: Essays on Postmodern Culture*, ed. Hal Foster (Port Townsend, WA: Bay Press, 1983).

his theory is too universalizing to fully capture the development of technological social systems in different contexts, particularly Japan's. For example, one thing I demonstrate in my dissertation is that "the technical" was to a certain extent problematically articulated as the ethical and the practical-political during the transformation of capitalism in early twentieth century Japan, thereby throwing into question the dichotomy between the technical and a distinct, autonomous political sphere. It was not simply the case that the technical sphere only sought to de-politicize and neutralize practical-political struggles in Japan; they attempted to incorporate and mobilize them as well. In re-articulating technology as a system of technologies that produced all aspects of society, the Japanese state in fact tolerated and encouraged many of the rational norms that Habermas affirms such as freedom, autonomy, individuality, self-development, and creativity; however, they did so only insofar as they did not fundamentally threaten the ultimate goals of winning the war and establishing an empire in Asia. The concept of "repressive tolerance" put forth by Marcuse might be a useful way to frame the Japanese state's employment of technology to incorporate the practical-political energies of the people.<sup>27</sup> Thus whereas the narrative of technology "eliminating the distinction between the political and the technical" in the early twentieth century might corroborate with the experience of modernity in certain European contexts, the same cannot be said to completely apply to Japanese modernity.

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<sup>27</sup> Herbert Marcuse, "Repressive Tolerance" in Robert Paul Wolff, Barrington Moore, Jr., and Herbert Marcuse, *A Critique of Pure Tolerance* (Boston: Beacon Press, 1969), 95-137. According to Marcuse, "tolerance" is granted both to the right and the left of the political spectrum only insofar as they do not challenge the class structure of society, and is limited by state monopolization of violence and the predominant interests of the privileged sections of society.

### ***Japan as Coeval Modernity***

My dissertation therefore seeks to trace the development of a “technocratic consciousness” in wartime Japan in order to further illustrate some of the many ways that technology has operated as an ideology of power and mobilization in Japanese history. Histories of Japanese modernization oftentimes occur against the ideological backdrop of a narrative of universal (i.e. “Western”) societal and cultural modernization whereby Japan is often portrayed as “deficient” or “pre-modern.” Such a narrative posits a set of cognitive and social transformations as “good and inevitable.”<sup>28</sup> Dilip Parameshwar Gaonkar writes:

On this account, the cognitive transformations include or imply the growth of scientific consciousness, the development of a secular outlook, the doctrine of progress, the primacy of instrumental rationality, the fact-value split, individualistic understandings of the self, contractualist understandings of the self, and so on. The societal transformations refer to the emergence and institutionalization of market-driven industrial economies, bureaucratically administered states, modes of popular government, rule of law, mass media, and increased mobility, literacy and urbanization.<sup>29</sup>

With regards to the history of Japanese technological development, this narrative tends to follow the same trajectory, excluding or de-emphasizing elements that do not fit. The wartime period (1931-1945) is considered to be particularly anti-modern, irrational, and ultra-nationalist. The 1991 government report on the history of Japanese technology policy described above for example briefly treats wartime institutions such as the Technology Board, the

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<sup>28</sup> Dilip Parameshwar Gaonkar, “On Alternative Modernities” in *Alternative Modernities*, ed. Dilip Parameshwar Gaonkar (Durham: Duke University Press, 2001), 1.

<sup>29</sup> *Ibid.*, 1-2. He is describing the view of the neo-conservative Daniel Bell.

Japan Society for the Promotion of Science, and the Science and Education Bureau of the Ministry of Education; however, these are mentioned only insofar as they fit into the government's larger narrative of Japan developing "effective ways to establish its own research and development know-how independently, thus bridging the large wartime gap between Japan and the West, and finally catching up with the West in numerous areas of science, technology and industry."<sup>30</sup> The post-war is the real locus of Japanese development into a technological superpower—the pre-war and wartime merely being an interval for Japan to play catch-up to the West.

In the 1930s and 1940s, Japan experienced similar changes to liberal capitalism that Habermas outlined above—increased state intervention and the emergence of science and technology as a leading productive force—in his description of the development of a "technocratic consciousness."<sup>31</sup> However, the result in the Japanese context was neither merely a tendency toward forming "one-dimensional" subjects, as Marcuse describes, nor simply an attempt to functionalize the political through the technical. As we shall see, what I call the Japanese "technological imaginary" in fact sought to incorporate and mobilize the practical-political energies of the people in various "rational" ways in order to establish a "New Order" in Japan and ultimately East Asia.<sup>32</sup>

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<sup>30</sup> Commission, 45. A mere nine pages are devoted to the wartime period.

<sup>31</sup> See *Japan's War Economy*, ed. Erich Pauer (London; New York: Routledge, 1999) for more on state intervention in the economy and Morris-Suzuki and Samuels for more on the rise of science and technology as a productive force in the Japanese economy.

<sup>32</sup> I use the term "technological imaginary" rather than "technocratic consciousness" because it brings out the utopian, creative sense of technology at the time.

### ***The Question of Fascism in Japan***

Since the technological imaginary developed together with fascism in Japan, it is necessary to take up a consideration of fascism and technology's place within it. According to the modernization theory framework, Japan never sufficiently developed a certain type of "modern" mental outlook based on scientific rationalism, pragmatic instrumentalism and secularism, and a certain type of institutional order based on popular government, bureaucratic administration, and a market-driven industrial economy. Nor did they sufficiently develop a certain type of cultural modernity that takes the form of critique that privileges the individual's need for self-expression and self-realization over the claims of community. Thus according to this framework, Japan strayed off the path of modernization in the 1930s by "succumbing" to an anti-modern, ultra-nationalist authoritarianism and expansionism.<sup>33</sup>

While "fascism" has been a contentious term for English-language scholars writing about wartime Japan, those who have used the term have borrowed from Maruyama Masao's conception of "fascism from above."<sup>34</sup> Maruyama believed that Japanese fascism in the end was not spread by a mass movement "from below" like in many cases in Europe but by the various organs of the state. Furthermore Japanese fascism was "particular" in its emphasis on emperor-centered familialism, anti-modern agrarianism, and

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<sup>33</sup> For an overview of the modernization theory approach as applied to prewar Japan see James William Morley, "Introduction: Choice and Consequence" in *Dilemmas of Growth in Prewar Japan*, ed. James William Morley (Princeton: Princeton University Press, 1971), 3-30. The authors attempt to apply a "value-free" definition of modernization and many conclude that Japan was only "partially modern."

<sup>34</sup> Masao Maruyama, "Theory and Psychology of Ultra-Nationalism" and "The Ideology and Dynamics of Japanese Fascism" in Masao Murayama, *Thought and Behaviour in Modern Japanese Politics*, ed. Ivan Morris (Oxford: Oxford University Press, 1969), 1-24, 25-83. For an overview of some of the English and Japanese language scholarship on fascism, see Gavan McGormack, "Nineteen-Thirties Japan: Fascism?" *Bulletin of Concerned Asian Scholars* 14, (1982):2-19.

emancipatory pan-Asianism. Its social foundation was the “pseudo or sub-intellectual” strata of the middle-classes: “small factory owners, building contractors, proprietors of retail shops, master carpenters, small landowners, independent farmers, school teachers (especially primary schools), employees of village offices, low-grade officials, [and] Buddhist and Shinto priests.”<sup>35</sup>

Unlike Europe, intellectuals such as “urban salaried employees, so-called men of culture, journalists, men in occupations demanding higher knowledge such as professors and lawyers, and university and college students” were not “the driving force of fascism” although they passively adhered to it.<sup>36</sup>

While different English-language scholars have reformulated various points of Maruyama’s thesis or have refused to use the term altogether in order to bring out Japan’s “particularity,” most emphasize the anti-modern, authoritarian, and spiritualist/communitarian elements of Japanese fascism more than its rational, modernizing components.<sup>37</sup> In their modernization theory framework, Europe forms the model of fascism to which Japan always appears particular—for example, the lack of a charismatic leader or a mass fascist-style party or the continuity between Meiji institutions and those of the

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<sup>35</sup> Maruyama, 58. Brackets mine.

<sup>36</sup> *Ibid.*, 58.

<sup>37</sup> Miles Fletcher refutes Maruyama’s “pseudo-intellectual” fascism thesis in his study of the Shōwa kenkyūkai intellectuals. William Miles Fletcher, *The Search for a New Order: Intellectuals and Fascism in Prewar Japan* (Chapel Hill: University of North Carolina Press, 1982). Peter Duus and Daniel Okimoto propose “corporatism” as a more appropriate framework than “fascism.” Peter Duus and Daniel I. Okimoto, “Fascism and the History of Prewar Japan: The Failure of a Concept” *Journal of Asian Studies* 39, no. 1 (1979):65-76. After comparing 1930s Japan with Europe, Kasza uses the term, “renovationist authoritarian right” to describe the wartime political system instead of “fascism.” The “renovationist authoritarian right” was between the more status-quo oriented “conservative right” and a fascism demanding a sweeping socio-political revolution. See Gregory J. Kasza, “Fascism from Below? A Comparative Perspective on the Japanese Right, 1931-1936” *Journal of Contemporary History* 19, no. 4 (1984):625. Herbert Bix uses the term “emperor-system fascism” to describe the political system of the period. See Herbert Bix, “Rethinking Emperor-System Fascism” *Bulletin of Concerned Asian Scholars* 14, (1982):20-32.

1930s was enough evidence to “prove” that Japan was not fascist.<sup>38</sup> Instead of deriving a standard model from the German or Italian experience, however, we should view fascism as a set of “common ideas that justified the new regimes, and the common programs they adopted.”<sup>39</sup> Focusing solely on the particularities and minutia of a so-called pure model of fascism ignores the importance of fascism as a broader historical force that developed simultaneously in different contexts. More importantly a focus on fascist particularity overlooks common processes of modernization in fascism such as rationalization, social reorganization, and for our purposes, the promotion of science and technology.

Instead of defining modernity as a fixed set of societal and cultural institutions emanating from “the West” and passively and uniformly adopted by Japan or “Asia,” I insist on Japan as a “coeval modernity.” In coeval modernities, the “many regions, many people, many industries, and many polities are in contact with one another despite geographic, cultural, and social distance,” and are undergoing similar processes albeit in different ways.<sup>40</sup> As Gaonkar writes, “everywhere, at every national/cultural site, modernity is not one but many; modernity is not new but old and familiar; modernity is incomplete and necessarily so.”<sup>41</sup> What makes modernity simultaneously multiple and familiar (not same!) is the endless process of translation through contact, as Naoki Sakai points out. “Thus, alternative modernities produce

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<sup>38</sup> McCormack, 29..

<sup>39</sup> Andrew Gordon, *Labor and Imperial Democracy in Prewar Japan* (Berkeley: University of California Press, 1991), 334.

<sup>40</sup> For the notion of “coeval modernities,” see Harry Harootunian, *Overcome by Modernity: History, Culture and Community in Interwar Japan*. (Princeton: Princeton University Press, 2000). The latter quote is from Naoki Sakai, “You Asians”: On the Historical Role of the West and Asia Binary” *The South Atlantic Quarterly* 99, no. 4 (2000):797.

<sup>41</sup> Gaonkar, 23.

combinations and recombinations that are endlessly surprising,” Gaonkar writes.<sup>42</sup> Therefore forms and processes such as science and technology, industrialization, bureaucratization, and fascism occur on a global scale but are “creatively adapted” to specific local sites in response to how people understand and negotiate their historical situation. Forms and processes such as fascism may be familiar but are pluralized by being translated into local historical and cultural contexts.

Yet we should not shy away from employing a working definition of fascism. Roger Griffin provides a useful conceptualization of fascism, one that captures the modernizing, revolutionary aspects of fascism that are often overlooked in studies on wartime Japanese politics. He writes:

Fascism is best approached as a genuinely revolutionary, trans-class form of anti-liberal, and in the last analysis, anti-conservative nationalism. As such it is an ideology deeply bound up with modernization and modernity, one which has assumed a considerable variety of external forms to adapt itself to the particular historical and national context in which it appears, and has drawn on a wide range of cultural and intellectual currents, both left and right, anti-modern and pro-modern, to articulate itself as a body of ideas, slogans, and doctrine. In the inter-war period it manifested itself primarily in the form of an elite-led ‘armed party’ which attempted, mostly unsuccessfully, to generate a populist mass movement through a liturgical style politics and a programme of radical policies which promised to overcome the threat posed by international socialism, to end the degeneration affecting the nation under liberalism, and to bring about a radical renewal of its social, political and cultural life as part of what was widely imagined to be the new era being inaugurated in Western civilization. The core mobilizing myth of fascism which conditions its ideology, propaganda, style of politics, and actions is the vision of the nation’s imminent rebirth from decadence.<sup>43</sup>

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<sup>42</sup> Ibid., 23

<sup>43</sup> Roger Griffin, “The Palingenetic Core of Generic Fascist Ideology” Oxford Brookes University, 2-3, <http://ah.brookes.ac.uk/history/staff/griffin/coreoffascism.pdf>. (accessed on June 16, 2006). In the text, the whole paragraph is in italics.

Griffin's definition of fascism as a "palingenetic form of populist ultra-nationalism" is useful because it interprets the anti-modern, tradition affirming, and spiritualist elements of fascism as a type of forward-looking, revolutionary transformation of society rather than the affirmation of a return to some idyllic past or preservation of the status quo. Moreover, it accounts for the modernizing elements of fascism such as the fascination with technology and its use to create a new order. Thus, Griffin's definition is helpful in analyzing the specific combination of so-called "anti-modern" and "modern" tendencies in Japanese fascism's project of "overcoming modernity" to create a "New Order in East Asia."<sup>44</sup>

### ***Pan-Asianism***

The "China Incident" of July 1937, signaling the outbreak of full-scale war, was the occasion for an explosion of essays, books, articles, journals, speeches, public debates, and organizations devoted to the formation of a pan-nationalist, multi-ethnic "New Order in East Asia" in Japan and the colonies then under its control (particularly in Korea, Taiwan and Manchuria). In November and December of 1938, Prime Minister Konoe Fumimaro

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<sup>44</sup> Although as we shall see, Japanese "ultra-nationalism" was formulated as a multi-ethnic, pan-Asian nationalism. Naoki Sakai calls this "imperial nationalism." See Naoki Sakai, "Ethnicity and Species: On the Philosophy of the Multi-ethnic State in Japanese Imperialism" *Radical Philosophy* 95 (1999):33-45.

The symposium to "overcome the modern" was a gathering of prominent Japanese critics, thinkers, scholars and writers in Kyoto in July 1942. In light of Japan's war success in Asia, they discussed how Japan should "overcome" the trappings of "Western" modernity - for example, democracy, individualism, capitalism, and liberalism. The proceedings were published. See *Kindai no chōkoku* [Overcoming the Modern], ed., Kawakami Tetsutarō and Takeuchi Yoshimi (Tokyo: Fuzanbō, 1979). For an overview in English see Harootunian, 34-94.

announced the “construction” of a “New Order in East Asia” as a goal that all peoples of the Japanese empire should actively strive towards. Between 1937 and 1940 numerous terms describing this “New Order” circulated among the public: “management of the continent,” “East Asian League,” “East Asian Cooperative Community,” “Japan-Manchuria-China bloc economy,” the “East Asian Coordinated Economy,” and “Long-Term Construction of East Asia” are only some of the principal terms. In August 1940, the term “Greater East Asia Co-Prosperity Sphere” became the overarching signifier for theories of pan-Asianism with Foreign Minister Matsuoka Yosuke’s official pronouncement in which he included the Dutch East Indies and French Indo-China as well.<sup>45</sup>

Broadly speaking, the New Order was characterized as a multi-ethnic, multi-cultural community based on a culture of independence, autonomy, prosperity, and mutual cooperation among the various communities.<sup>46</sup> It was to be a rapidly developing, modernized and self-sufficient economic sphere with a strong military defense. It was envisioned as an anti-imperialist, non-exploitative, anti-communist, anti-liberal, and non-capitalist “Asian” community (“the West” most often being signified as exploitative, individualist and capitalist). It was to be based on so-called “Eastern” values of harmony, practicality, unity with nature, Confucianism and the “kingly way.” Finally, Japan was to “lead” and “guide” East Asia (not dominate and control) since

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<sup>45</sup> For some English translations of documents related to the New East Asian Order conception see *Japan’s Greater East Asia Co-prosperity Sphere: Selected Readings and Documents*, ed. Joyce Lebra-Chapman (Kuala Lumpur; New York: Oxford University Press, 1975).

<sup>46</sup> Specifically, the various peoples of Manchuria, north and central China and Japan—note that Hokkaido, Okinawa, Sakhalin, Taiwan, Korea and the South Sea territories are already incorporated into the term, “Japan.” Also, while Matsuoka’s 1940 statement made a reference to South East Asia as part of the Greater East Asia Co-prosperity Sphere, it was not given as much conceptual priority as Northeast Asia until 1942 with the Japanese advance into these regions.

she was the only Asian country to successfully fuse so-called “Eastern values” with “Western” rationality, science, and technology in order to avoid imperialist domination and therefore build a strong, independent nation-state. As we shall see, this fascist “New East Asian Order” ideology, which sought national rebirth through revolutionizing all areas of society in East Asia, was to serve as a powerful mobilizing ethic within the technological imaginary of wartime Japan.

### ***Technology and Fascism***

In this dissertation, I analyze how technology in wartime Japan (1931-1945) meant much more than simply advanced machinery and infrastructure but included a subjective, ethical, and visionary element as well. For many bureaucrats and intellectuals, technology began to embody certain ways of creative thinking, acting or being, as well as values of rationality, cooperation, and efficiency or visions of a society without ethnic or class conflict. My main argument is that political and intellectual elites held a more subjective view of technology as something that permeated every aspect of life. These elites generated policies to control and produce society. I call this more subjective, practical, and mobilizing view of technology the “technological imaginary” since it motivated everyone from bureaucrats planning the corporatist “New Order for Science and Technology” to cultural critics advocating the cultivation of a “neo-realist” technological aesthetic in film and mass media. Far from being merely an era of anti-rationality and anti-modernity, the 1930s and 1940s were in fact a period of rich debate over the meaning of technology in modernity. Therefore my dissertation problematizes the framework of Area Studies, which particularizes Japan as always behind or as “straying from” the

universal norms, institutions, and developmental trajectory of “the West.” As we shall see, Japanese elites were very involved in the global, modern project of articulating the notion of technology into specific social contexts.

Several authors have examined the connections between technology and fascism. Most notably, Jeffrey Herf analyzes how German intellectuals such as Oswald Spengler, Ernst Jünger, Martin Heidegger, and Werner Sombart reconciled the “antimodernist, romantic, and irrationalist ideas present in German nationalism and the most obvious manifestation of means-ends rationality, that is, modern technology.”<sup>47</sup> These “reactionary modernists” appropriated reason to pathological, irrational, and romantic ends of “community, blood, will, self, form, productivity, and finally race.”<sup>48</sup> However, he assumes that there exists an “enlightened” employment of modern technology (means-ends rationality) that these reactionary modernists twisted to their “irrationalist” goals.<sup>49</sup> For Herf, technology is still neutral and instrumental, and he does not question how technology itself can operate as political domination in so-called democratic contexts as well. Moreover, as we shall see, Japanese bureaucrats and intellectuals who articulated the technological imaginary actually affirmed and promoted similar values of rationality, cooperation, innovation, and efficiency that also operate in non-fascist societies. It was not the case that Japanese elites merely “perverted” the rational values of technology by infusing them with irrationality and romanticism. Rather, they sought to bring out the practical, political, and inventive nature of technology in the service of building a technological society

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<sup>47</sup> Jeffrey Herf, *Reactionary Modernism: Technology, Culture, and Politics in Weimar and the Third Reich* (Cambridge: Cambridge University Press, 1984), 1.

<sup>48</sup> *Ibid.*, 16.

<sup>49</sup> *Ibid.*, 10.

in which every aspect of life was rationally planned and mobilized for exhibiting its maximum potential and creativity. In short I argue that the technological imaginary in wartime Japan highlighted a very dangerous form of power inherent in the nature of technology itself, which if brought to its logical conclusion would create a fully rationalized, hyper-modernizing fascist utopia.<sup>50</sup>

Utopian notions of technology, of course, were not particular to fascism although they lent themselves to similar purposes. Charles Maier traces how Taylorism spread beyond rationalizing work techniques in the factory and became a powerful political ideology of industrial management and social reorganization.<sup>51</sup> He shows how “scientific management” lent itself to visions of overcoming class conflict both on the left and the right in early twentieth century U.S. and Europe. According to these visions, society would be reorganized along the lines of a “coherent system” of “efficiency, optimality, enhanced productivity and expanded output.”<sup>52</sup> For example, in the U.S. during the Progressive Era, Charles Ferguson and Thorsten Veblen put forth the engineer as the ideal person to “impose optimality upon society” and end the waste and conflict produced by capitalism.<sup>53</sup> In France, “Saint Simonianism embodied a proto-technocratic ideology that rejected traditional class divisions in favor of the unity of all ‘productive’ and ‘industrious’ elements, bourgeois,

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<sup>50</sup> Along similar lines, Max Horkheimer and Theodor Adorno draw attention to the destructive aspects inherent in the Enlightenment and reason. See Max Horkheimer and Theodor W. Adorno, *Dialectic of Enlightenment*, tr. John Cumming (New York: The Continuum Publishing Company, 1994).

<sup>51</sup> Charles S. Maier, “Society as Factory” in Charles S. Maier, *In Search of Stability: Explorations in Historical Political Economy* (Cambridge: Cambridge University Press, 1987), 19-69.

<sup>52</sup> *Ibid.*, 26.

<sup>53</sup> *Ibid.*, 27-29.

peasant, and proletarian.”<sup>54</sup> In Italy, the Futurists envisioned the fascist state as a “dynamo,” and therefore, “more than a state.”<sup>55</sup> In the Soviet Union, communists celebrated the potential of technology to create social revolution.<sup>56</sup> Finally, in Germany industrialist-engineers such as Walther Rathenau and Wichard von Moellendorf employed technological paradigms in pushing for a “planned economy” (*Planwirtschaft*) that would eliminate competition and transform capitalists into public employees.<sup>57</sup> Thus technology became a powerful signifier of social harmony, innovation, and efficiency all around the world in the face of the crisis of capitalism and growing labor unrest.

### ***The Technological Imaginary in Japan***

A more subjective, utopian notion of technology captured the imaginations of a wide range of pre-war and wartime Japanese elites as well. William Tsutsui examines how American scientific management ideology was translated into the Japanese context and developed into post-war modern Japanese industrial management.<sup>58</sup> With regard to the prewar and wartime periods, he examines the thought and policies of a number of engineers, managers and bureaucrats such as Ueno Yôichi and Yoshino Shinji who were involved in the state-sponsored Efficiency Movement and the Industrial Rationalization Movement (*sangyô gôrika undô*).<sup>59</sup> Kawahara Hiroshi examines the history of technocracy—the rule of technical experts—during the

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<sup>54</sup> Ibid., 32.

<sup>55</sup> Ibid., 35.

<sup>56</sup> Ibid., 30.

<sup>57</sup> Ibid., 40.

<sup>58</sup> William M. Tsutsui, *Manufacturing Ideology: Scientific Management in Twentieth-century Japan* (Princeton: Princeton University Press, 1998).

<sup>59</sup> Ibid., 14-121.

period.<sup>60</sup> The proponents of technocracy included heavy chemical industrial combine (*zaibatsu*) leaders such as Nissan's Ayukawa Gisuke who promoted the idea of "public holding companies" over private corporations and Ôkochi Masatoshi of The Institute for Physical and Chemical Research (*Riken*), proponent of the philosophy of "scientific industry."<sup>61</sup> Engineers organized themselves into the Japan Artisan's Club in 1920 (becoming the Japan Technology Association in 1935), asserting that technology was the basis of national culture and ethics. Heavily influenced by the New Deal system in the U.S. and Nazi economic policies, they pushed an agenda of encouraging labor-management cooperation, improving administrative and bureaucratic efficiency, increasing the number of engineers in national policy positions, and intensifying the colonization of East Asia. Their leader, Miyamoto Takenosuke, became head of the Technology Division of the Asia Development Board and played a key role in drafting the Outline for a New Order of Science and Technology in 1940.<sup>62</sup>

Subjective, ethical notions of technology permeated the social sciences as well. In sociology, Matsumoto Junichirô and Hayase Toshio introduced the ideas of the U.S. technocracy movement to Japan and their importance for the New Deal system in the U.S., socialism in the Soviet Union, and fascism in Germany.<sup>63</sup> In economics, Ôkuma Nobuo emphasized the study of reproducing human labor, rather than just material production, while Ôkochi

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<sup>60</sup> Kawahara Hiroshi, *Shôwa seiji shisô kenkyû* [Studies on the Political Thought of the Shôwa Period] (Tokyo: Waseda daigaku shuppanbu, 1979).

<sup>61</sup> Kawahara, 58. See Michael A. Cusumano, "'Scientific Industry': Strategy, Technology, and Entrepreneurship in Prewar Japan" in *Managing Industrial Enterprise*, ed., William D. Wray (Cambridge: Council of East Asian Studies/Harvard University, 1989) for more on Ôkochi.

<sup>62</sup> Kawahara, 64-67. For a more detailed account of Miyamoto, see Ôyodo Shôichi, *Miyamoto Takenosuke to kagaku gijutsu gyôsei* [Miyamoto Takenosuke and the Science and Technology Administration] (Tokyo: Tôkai daigaku shuppankai, 1989).

<sup>63</sup> Kawahara, 68-70.

Kazuo argued for the introduction of policies to promote private consumption instead of just production.<sup>64</sup> These studies crystallized into a wider discipline of the “life sciences,” which helped increase the scope of state technocratic control for the purposes of wartime mobilization.<sup>65</sup> In political science, Rôyama Masamichi defined technology as the “tactics of managing human life” and applied technology to administrative reform. By introducing rational techniques of management into administration, technological consciousness and method would begin to hold sway in the conduct of administrators, eventually spreading to local government and the numerous organizations governing daily life, according to Rôyama.<sup>66</sup>

In philosophy, the Kyoto School developed the notion of the practical subjective (*shutaiteki*) nature of technology. From the 1920s the Kyoto philosopher Nishida Kitarô used the term “technology” as a synonym for *poiesis* or what he called “acting intuition” (*kôiteki chokkan*).<sup>67</sup> For Nishida,

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<sup>64</sup> Ibid., 223. Yasushi Yamanouchi, “Total War and System Integration: A Methodological Introduction” in *Total War and ‘Modernization,’* ed., Yasushi Yamanouchi, J. Victor Koschmann, and Narita Ryuichi (Ithaca: Cornell University East Asia Program, 1998), 23-26.

<sup>65</sup> Kawahara, 203-234.

<sup>66</sup> Ibid., 74-79, J. Victor Koschmann, “Tekunorojî no shihai/Shihai no tekunorojî” [Rule by Technology, Technologies of Rule] in *Iwanami kôza nihon kindai no bunkashi 7: Sôryokusenka no chi to seido, 1935-55 1* [Iwanami Lectures in Modern Japanese Cultural History v. 7: Knowledge and Institutions under Total War, 1935-55 Part 1] ed., Komori Yôichi, et al. (Tokyo: Iwanami Shoten, 2002), 145-149.

<sup>67</sup> “Acting intuition” designates what might come before or after the subject—“subject” as ecstatic, transformative *poiesis* that is the complete *annihilation* of any reserve which can posture as an autonomous, rational or transcendental subject beyond the concrete, singular expressions of bodily existence in the world. Nishida devotes hundreds of pages in trying to articulate this idea of “subject” as *poiesis*, which I cannot do justice to here; however the essays, “Kôiteki chokkan” [Acting Intuition] and “Ronri to Seimei” [Logic and Life] are a good place to start for more on this thought. Nishida Kitarô, “Kôiteki chokkan” in *Nishida Kitarô zenshû* 8, ed. Abe Yoshitaka, et. al. (Tokyo: Iwanami shoten, 1953), 541-571 and Nishida, “Ronri to seimei,” 273-394. I define *poiesis* as the act of *making* itself or producing anew, rather than as the instrumental activity of employing some external means to achieve some internal goal. It signifies active creation, poetics, and transformation. In *poietic* activity, there is no defined split between subject and object; only the singularity of the transformative act itself, an act that creates unexpected outcomes. The aesthetician, Nakai Masakazu, develops this *poietic* aspect of technology more thoroughly and rigorously. See my fourth chapter on

technology was a concrete combination of the “made world” and “making the world,” the “mechanical world” and the “world of consciousness.” Technology was simultaneously subjective and objective, or rather *practically subjective* (*shutaiteki*)—it concerned the simultaneous self-formation of the subject and the formation of the world. In fact, the very division between the “mechanical world” and the “world of consciousness” was the result of “technology” or “acting intuition” and did not pre-exist it.<sup>68</sup> It was rather *poietically* manufactured through practical subjective action or the workings of different “subjective technologies” in the world.<sup>69</sup> Along these lines, the Kyoto School philosopher Miki Kiyoshi wrote in a 1938 essay, “Technology is the act of making things. The common essence of technology is to make things, whatever they may be, whether they are tools, machines, mental and bodily forms, social systems or ideas.”<sup>70</sup> Thus, he also equated technology with the production of all areas of life.

Social, practical conceptions of technology extended to colonial administrators as well. Janis Mimura traces the careers of three prominent “technology bureaucrats” who played a leading role in planning Manchuria’s economy and later helped build Japan’s wartime “New Orders” for the

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Nakai, “Para-Existential Forces of Invention: Nakai Masakazu’s Theory of Technology and Critique of Capitalism.”

<sup>68</sup> Aikawa Haruki, one of the people I examine, discusses Nishida’s theory of technology in Haruki Aikawa, *Gendai gijutsuron* [Modern Theory of Technology], (Tokyo: Mikasa shobō, 1940), 19-20. He quotes from *Ronri to seimei* [Logic and Life] and *Zettai mujunteki jikodoitsu* [Absolute Contradictory Self-Identity].

<sup>69</sup> Naoki Sakai notes how Nishida perceived of technology as “subjective technology” (*shutaiteki gijutsu*) by which “the subject manufactures itself through praxis,” and not just as the lifeless instruments used by a human subject (*shukan*) to achieve its goals. See Naoki Sakai, *Translation and Subjectivity: On Japan and Cultural Nationalism*, (Minneapolis: University of Minnesota Press), p. 24-25, 198-199. I am indebted to Sakai for pointing this out to me.

<sup>70</sup> Miki Kiyoshi, “*Gijutsu tetsugaku*” [Philosophy of Technology] in *Miki Kiyoshi zenshū* 7 [The Collected Works of Miki Kiyoshi], ed. Ōuchi Hyōei, et. al. (Tokyo: Iwanami Shoten, 1966-68), 220.

economy, finance, labor, and science and technology—Kishi Nobosuke, Mōri Hideoto, and Okumura Kiwao.<sup>71</sup> A whole group of bureaucrats developed a conception of technology as managing the economy and society (what Mōri called “economic technologies”) there. One of the institutions that colonial bureaucrats helped establish in 1935 was the Continental Science Board, an institute in Shinkyō (capital of Manchuria) dedicated to centralizing scientific and technological research, training engineers and scientists, and promoting scientific knowledge in the colonies.<sup>72</sup> Suzuki Umetarō, head of the Continental Science Board after Ôkochi Masatoshi, openly modeled the Board after the Soviet Academy of Sciences, which systematized the relationship between research institutes and industry, and scientists and producers, as well as promoted collective research for the state.<sup>73</sup> The Board was the prototype for the Technology Board, a national “technology general staff” established in 1941 through the efforts of Miyamoto and other Cabinet Planning Board bureaucrats.<sup>74</sup>

In film, the hard-edged documentary style became prominent during the wartime period. The documentary or *bunka eiga* (“culture film”) was viewed as the medium that best represented technological society because of the genre’s combination of scientific and aesthetic elements. For example, the famous film critic Imamura Shōhei wrote that the ideal *bunka eiga* possesses “a fresh, original perception of the life of the machine, a poetic originality with regard to the machine, a new yearning for the machine.”<sup>75</sup> For many,

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<sup>71</sup> Janis Mimura, “Technocratic Visions of Empire: The Reform Bureaucrats in Wartime Japan” (Ph.D. dissertation, University of California, Berkeley, 2002).

<sup>72</sup> Kawahara, 84-85.

<sup>73</sup> Ibid., 86-87.

<sup>74</sup> Ibid., 90-91.

<sup>75</sup> Markus Abé Nornes, *Japanese Documentary Film: The Meiji Era through Hiroshima* (Minneapolis: University of Minnesota Press, 2003), 91.

technology's most powerful and visible product—the machine—represented and permeated society yet not in an alienating or oppressive manner. The spread of mass media technologies such as film, radio, and mass print among the people in fact signified the creation of a technological culture full of new aesthetic sensations and possibilities.

### ***Technology as System of Power in Wartime Japan***

While Kawahara, Mimura and others have shown how a “technocratic consciousness” and a creative notion of technology permeated the Japanese elites, similar to Herf, they fail to fully recognize how this consciousness reflected the formation of a broader system of technology as social integration. Their “technocratic visions” in the end merely served to lend “decisive support for the military’s aggression abroad and political oppression at home,” Mimura writes, for instance.<sup>76</sup> In short, these technocratic elites simply used the trope of technology for unenlightened, undemocratic purposes. This overlooks a more disturbing aspect of technology—its ability to mobilize, create, innovate, and organize something new. The “technological imaginary” signified more than an instrumental deployment “from above” of rational means-ends technology for repressive purposes, but the ideological formation of a new system of power that actively mobilized the practical-political energies of the people within limits.

Walter Benjamin partially captures this mobilizing dynamic of the technological imaginary when he describes the fascist employment of the “mechanical reproduction of art” (i.e. film, mass media):

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<sup>76</sup> Mimura, 2.

Fascism attempts to organize the newly created proletarian masses without affecting the property structure which the masses strive to eliminate. Fascism sees its salvation in giving these masses not their right, but instead a chance to express themselves. The masses have a right to change property relations; Fascism seeks to give them an expression while preserving property.<sup>77</sup>

Benjamin describes this mobilization of mass expression through the media as “the violation of an apparatus which is pressed into the production of ritual values” such as the aestheticization of warfare and the “Führer cult.”<sup>78</sup> Yet while he understands the fascist organization of mass expression through technology and the maintenance of property relations, he overlooks fascism’s more rational forms of mobilizing popular energies—for him, even machine technology has been employed for “unnatural” purposes of warfare and death rather than redistributing resources and property.<sup>79</sup> As we shall see, however, “cultural technologies” of film and “economic technologies” of managing the economy and workplace, for example, attempted to incorporate creativity, innovation, and individuality in more secular, rational ways as well.<sup>80</sup>

Instead of perceiving fascism as a predominantly irrational and anti-modern ideology that subverts reason and modernity, the sociologist Yamanouchi Yasushi interprets fascism within the framework of a broader shift from the “class society” to the “system society” that continued into the post-war.<sup>81</sup> “In this new stage, class conflict and other social struggles have ceased to serve as major agents of historical change, but are continually subjected to

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<sup>77</sup> Walter Benjamin, “The Work of Art in the Age of Mechanical Reproduction” in Walter Benjamin, *Illuminations*, ed. Hannah Arendt, tr. Harry Zohn (New York: Schocken Books, 1968), 241.

<sup>78</sup> *Ibid.*

<sup>79</sup> *Ibid.*, 242.

<sup>80</sup> I will return to Benjamin’s discussion of the revolutionary/counter-revolutionary potential of mass media technology, which some Japanese intellectuals recognized in similar ways as well.

<sup>81</sup> Yamanouchi, 4.

rules and eventually institutionalized,” he writes.<sup>82</sup> Following the theory of Talcott Parsons, Yamanouchi demonstrates how total war mobilization’s tendency toward “equalization” (*Gleichschaltung*) helped rationalize, incorporate, and mitigate social conflict and exclusion for the purpose of war.<sup>83</sup> In the system society, power was not “something impinging on civil society from outside” but was “resituated within the system as an integrating mechanism that sustained the systemic relations of civil society.”<sup>84</sup> Power was resituated into various institutions and members of society instead of exercised solely from above. “Authority and power are merely systemic functions that contribute to sustaining the stable operation of society,” Yamanouchi writes.<sup>85</sup>

Following Yamanouchi, I argue that the technological imaginary shared by bureaucrats and intellectuals played an essential role in functionalizing (or “technologizing”) the practical-political energies of the people. The technological imaginary broadly envisioned society as an organic system constituted by a whole series of economic, scientific, cultural, intellectual, and administrative technologies. According to this vision, every member of society would have a productive, creative role in the operation of the social system, which was dedicated to constructing the “New Order in East Asia.” Thus technology took on the meaning of a vast technical system similar to the “autopoiesis characteristic of organic life.”<sup>86</sup> The incorporation and systematization of all areas of life through the technological imaginary during Japan’s wartime mobilization serves as a compelling paradigm for analyzing

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<sup>82</sup> Ibid., 34.

<sup>83</sup> Ibid., 3.

<sup>84</sup> Ibid., 16.

<sup>85</sup> Ibid., 19.

<sup>86</sup> Ibid., 22.

“fascist” and “totalitarian” tendencies that have continued well into post-war Japan, and might be inherent to the process of technological modernization itself.

### ***Scope of the Dissertation***

More broadly, my dissertation is about how power operated ideologically under Japanese fascism and totalitarianism in ways more insidious and subtle than outright violence and repression. To cover some of the range of the technological imaginary, I have chosen three figures representing different areas of society: the bureaucracy, the social sciences, and culture. My first chapter, “Techno-Imperialism and the New Order in East Asia: Mōri Hideoto’s Theory of Technology,” explores the thought and career of Mōri Hideoto, a “reform bureaucrat” from the Finance Ministry who helped design the planned economy in Manchuria and China, as well as the “New Order for Science and Technology.” For him, technology primarily meant the specific laws, institutions and administrative techniques for constructing an integrated “control economy” in Japan and East Asia. Mōri considered himself and others to be “creative engineers” engaged in constructing a modern, fully-mobilized “New Order in East Asia” through specific “economic technologies” of power such as establishing banks, constructing roads and infrastructure, employing local knowledge and leadership, restricting capitalist enterprise and organizing mass organizations. My argument is that Mōri and other technocrats were instrumental in actively envisioning and constructing a society in East Asia based on a creative, rather than merely repressive concept of power.

Chapter Two, “Subjective Technologies of Mobilization: Aikawa Haruki's Wartime Theory of Technology,” examines the Marxist economist Aikawa Haruki who later became a fierce proponent for the establishment of a technologically advanced, rationally planned “New Order in East Asia” that would supposedly eliminate social inequality, capitalist exploitation, and ethnic conflict. A widely acclaimed “technology critic” and proponent of a multi-disciplinary “Technology Studies,” Aikawa developed a notion of society as a dynamic complex of subjective and objective technologies. He was a prominent campaigner for the “Outline for a New Order of Science and Technology,” which was adopted in 1941. While the *Outline* centralized technological policy, research, technical education, and labor allocation, Aikawa pushed for further measures such as the creation of “vocational organizations” of scientists, engineers, and workers in every factory, and the organization of industrial control associations based on technological process and function. These measures would help build a technologically advanced society, and spread virtues of technological rationality, innovation, and organization throughout the populace. My argument in this chapter is that Aikawa was instrumental in highlighting the practical, everyday, creative nature of technology in a way that furthered Japan’s imperial aims and totalitarian control over its people.

Chapter Three, “Cultural Technologies of Mobilization: Aikawa Haruki and the Wartime ‘Culture Film’” explores Aikawa’s theory of a “neo-realist” technological aesthetics and documentary film, and his involvement in the production of the documentary, *The Present Battle* (1942). The *bunka eiga* (“culture film” or documentary) was to be the principal aesthetic form of the new society of technology, and Aikawa explored different cinematic techniques

by which to motivate people to actively cooperate with the construction of the “New Order.” His idea of film production as a dynamic complex of material and aesthetic technologies, as well as the depiction of management and industrial technologies at a Hitachi engine factory in *The Present Battle* present us with concrete instances of his idea of society as a larger system of interacting technologies. My objective in this chapter is to demonstrate how Aikawa and others viewed technology not only as machines and infrastructure, but as permeating mass culture and sensation as well in ways that mobilized subjects for Japan’s imperial mission in East Asia.

In Chapter Four, “Para-Existential Forces of Invention: Nakai Masakazu’s Theory of Technology and Critique of Capitalism,” I examine the thought and activity of Nakai Masakazu, professor of aesthetics at Kyoto University. Nakai was very interested in the contemporary mass aesthetics of technology as manifested in film, radio, architecture, print and design. Engaging with European modernist trends such as surrealism, *Bauhaus*, montage film, and Russian avant-garde film theory, he also developed a wider notion of technology as sensuous, creative activity, and explored new possibilities of sensation and subjectivity in mass technological modernity—what he called an inventive “technological beauty and time” in film, sports, music, and literature, for example. An essential part of his theory, however, was a critique and analysis of what he calls the “commodified nature” and “specialized nature” of life under heavy industrial, monopoly capitalism, which restrained the critical potential and creative energies of the people. My argument is that Nakai developed a wider notion of technology as sensuous, creative activity that avoided the pitfalls of similar discourses of

technology that equated the productive, technologically mediated subject with the mobilized subject of Japan's total war system in East Asia.

In my final chapter, "Nakai and the Politics of the Everyday," I examine how Nakai develops his notion of technology into a politics that would challenge the dominant systems of technocratic control and mobilization of all areas of life. In his famous essay, "The Logic of Committee," he proposes the "committee" as an autonomous political vehicle that would transform the social technologies of capitalist society from within. The committee would also contribute to the realization of a mass subjectivity infused with a "cooperative nature" and "critical nature" yet firmly grounded in the fractured, multiple practices, techniques, and customs of the people, as opposed to one particular vanguard social group (e.g. the "working class" or "nation"). I then examine the politics of the mass tabloid, *Doyôbi*, which attempts to realize some of the ideas put forth in "The Logic of Committee." *Doyôbi* was an arena for proliferating debate on a whole range of concrete everyday issues facing people who were living within the grid of technocratic structures of 1930s Japan. As such, it is suggestive for further reflection on the problem of the incorporation of practical-political energies into the technological imaginary. My argument is that Nakai recognized the persistence of the political as contingency, antagonism, and unexpected points of tension within the very technologies mobilizing all aspects of life rather than as a firmly delimited, rational sphere of universal principals and determined political identities. In fact, the logic of the political as fixed democratic subjects and set political norms beyond hegemonic contestation fell into the very logic of the technological imaginary of people such as Môri and Aikawa, who sought to create a multiple, organic community of productive subjects building the New

Order of East Asia. Thus I seek to illuminate another notion of the political operating within the technological imaginary of wartime Japan.

### ***Meaning of Technology in Wartime Japan***

While it is difficult to isolate a specific definition of technology due to the differences among intellectuals at the time, nevertheless we can establish a general meaning. In wartime Japan, more and more Japanese elites began to share a view of technology as more than a system of mechanical tools, machines, and principles representing means-ends/instrumental rationality. Rather, it began to signify a wider system of social, psychological, and political techniques that incorporated practical-political goals to a limited degree. As opposed to Habermas's definition of technology as an expanding system of "purposive-rational action" (rather than practical, ethical action), the meaning of technology in wartime Japan approached something similar to Michel Foucault's definition of technology as a social system of techniques that can be analyzed and studied. He lists four types of technology—"each a matrix of practical reason:"

(1) technologies of production, which permit us to produce, transform, or manipulate things; (2) technologies of sign systems, which permit us to use signs, meanings, symbols, or signification; (3) technologies of power, which determine the conduct of individuals and submit them to certain ends or domination, an objectivizing of the subject; (4) technologies of the self, which permit individuals to effect by their own means, or with the help of others, a certain number of operations on their own bodies and souls, thoughts, conduct, and way of being, so as to transform themselves in order to attain a certain state of happiness, purity, wisdom, perfection, or immortality.<sup>87</sup>

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<sup>87</sup> Michel Foucault, "Technologies of the Self" in *Foucault: Ethics, Subjectivity, and Truth, Essential Works of Foucault, 1954-1984, Volume 1*, ed. Paul Rabinow, tr. Robert Hurley, et. al. (New York: New Press, 1997), 224-225.

The importance of Foucault's matrix of technologies lies less in its immediate application to wartime Japan, but rather in its capture of the more practical, subjective, and ethical sense at work in the discourse. Discussions of economic, cultural, administrative, or even "life technologies" during wartime Japan all shared this common purpose of *producing* subjects and society. As such, the nature of power was more oriented toward domination through mobilization and production rather than solely through repression and violence.

This type of theory of technology, however, brings us to an impasse. If technology indeed carries the meaning of the production of all aspects of life, how is any type of effective political action possible? If there is no outside of power and its production of life then does not power (or technology) lose any meaning whatsoever since it has nothing to oppose itself with? This would be the case if technology had one *ontological* meaning of "means-ends rationality," for example, that determined life univocally. However, as Andrew Feenberg notes, "the lower we descend toward the foundations of rational institutions, the more ambiguous are the elements from which they are constructed, and the more these are compatible with a variety of different hegemonic orders."<sup>88</sup> The fundamental *ambiguity* of technology allows the technologies of modern society to be dissimulated and employed by dominating and dominated alike for different purposes. Resistance and critique does not lie outside "our participation in technically mediated social institutions" but in our activities within them.<sup>89</sup>

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<sup>88</sup> Feenberg, 83.

<sup>89</sup> *Ibid.*, 174.

Nakai and others recognized this fundamental ambiguity and ambivalence of technology. His definition of technology as unexpected invention, discovery, and invention in everyday life (“chance” and “opportunity”) reveals the ontological indeterminacy of technology itself. Aikawa and Mōri also understood this fundamental indeterminacy; however, they *strategically* encoded technology to mean the system of techniques to mobilize all areas of life for the construction of a utopian New Order in East Asia. Nakai, on the other hand, *tactically* defined the essence of technology as those itinerant, uncanny forces of invention embedded in technologically mediated everyday life—particularly within the new sensations produced by mass media and culture.

Michel de Certeau uses the term “strategies” to describe the means of control employed by social and technological systems. He writes:

I call a “strategy” the calculus of force-relationships which becomes possible when a subject of will and power (a proprietor, an enterprise, a city, a scientific institution) can be isolated from an “environment.” A strategy assumes a place that can be circumscribed as *proper* (*proper*) and thus serve as the basis for generating relations with an exterior distinct from it (competitors, adversaries, “clienteles,” “targets,” or “objects of research). Political, economic, and scientific rationality has been constructed on this strategic model.<sup>90</sup>

Strategies are not tools used by elites; rather, they create a space from which they then operate on society. Thus, the “economic technologies” employed by reform bureaucrats or the “cultural technologies” of *bunka eiga* (culture films) themselves generate spaces “above” society to rationally manage or mobilize it—such is the logic of technocracy or rule by experts. Moreover, aside from

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<sup>90</sup> Michel de Certeau, *The Practice of Everyday Life*, tr. Steven Rendall, (Berkeley and Los Angeles: University of California Press, 1988), xix.

forging a space above society, state technologies attempted to determine and incorporate political subjects within an organicist, productive wartime system, thereby preventing them from being articulated into other more radically democratic possibilities.

A “tactic,” on the other hand, is “a calculus which cannot count on a “proper” (a spatial or institutional localization), nor thus on a border-line distinguishing the other as a visible totality,” de Certeau writes.<sup>91</sup> Tactics are the fleeting, punctual, itinerant actions of daily life under the purview of the dominant strategy yet subtly altering its trajectory or meaning. They are not oppositional actions per se, but “play” with the dominant codes or disciplinary technologies for non-hegemonic purposes. De Certeau gives “tactical” examples such as workers using objects or tools for their own use (*la perruque*) or rural Brazilians subverting a Christian narrative into a legend of hope for the poor and oppressed.<sup>92</sup> Faced with the rationalization, commodification, and specialization of all aspects of life, Nakai and his colleagues also advocated stimulating the mobile “tactics” of everyday life instead of building a “strategic” vanguard political force that could be incorporated or repressed by the state. Their tabloid *Doyôbi* encouraged people to engage themselves with the different kinds of subordination and freedom in their surrounding reality (the “here and now”), not some abstract ideology or necessary future. For Nakai, nearly anything at hand could be taken up and turned into a “small breeze” of critique. People in fact responded by contributing articles on rising commodity prices, the latest American films, women’s fashion, the middle-school examination system, discrimination of

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<sup>91</sup> Ibid., xix.

<sup>92</sup> Ibid., 16-17, 25.

Koreans, corrupt local bureaucracy and so on. Using the image of “flowers blooming atop of the steel rails” of the specialized, technocratic structures of modern Japan, Nakai insisted on founding a politics based on the daily struggles and pleasures of the people within those very structures.<sup>93</sup> Society could be changed only from within technologically mediated reality, not from without in some utopic space outside technology, for example.

Ernesto Laclau and Chantal Mouffe perhaps best summarize the “strategic” designs of the state’s technological imaginary and Nakai’s “tactical” notion of technology. They describe the nineteenth century English novelist and statesman, Benjamin Disraeli’s project of forging “one nation” from the “varied ensemble of social and political demands.”<sup>94</sup> His strategy was:

[T]he differential absorption of demands, which segregated them from their chains of equivalence in the popular chain and transformed them into objective differences within the system—that is, transformed them into ‘positivities’ and thus displaced the frontier of antagonism to the periphery of the social. This constitution of a pure space of differences would be a tendential line, which was later expanded and affirmed with the development of the Welfare State. This is the moment of the positivist illusion that the ensemble of the social can be absorbed in the intelligible and ordered framework of a society.<sup>95</sup>

By attempting to constitute a “pure space of differences,” the state’s technological imaginary absorbed and displaced some of the multiple practical-political energies of the people into the state project of war and establishing the New Order in East Asia. Incorporating elements of freedom, creativity, and individuality into wartime ideology, they tried to create a “closed

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<sup>93</sup>Masakazu Nakai, “Doyōbi kantōgen,” in *Nakai Masakazu zenshū* 4 [The Collected Works of Nakai Masakazu] (Tokyo: Bijutsu Shuppansha, 1981). Hereafter referred to as *NMz* followed by the volume number then the page number. For example, in this instance *NMz* 4:24.

<sup>94</sup> Ernesto Laclau and Chantal Mouffe, *Hegemony and Socialist Strategy: Towards a Radical Democratic Politics* (London and New York: Verso, 1986), 130.

<sup>95</sup> *Ibid.*

system of differences” that put people in their place within the wartime “New Order” system and never fundamentally challenged the relations of subordination. Nakai’s project, on the other hand, was to reveal the ultimate impossibility of fixing the social in such a way, which would prevent the articulation of multiple demands and identities. The “Logic of Committee” and his practice of publishing the mass tabloid *Doyôbi* were attempts to proliferate “points of rupture” within the technocratic structures of everyday life, and therefore lay bare the relations of subordination and potential nodes of struggle and critique.<sup>96</sup> More importantly, through his understanding of technology as contingent invention, chance, and discovery, he attempted to articulate an open notion of the political that did not dogmatically link the energies of the people to one overarching subject position—whether it be the nation or the proletariat—but through the articulation of the contingent, antagonistic, multiple energies of the people themselves. His political project can be seen as seeking a way out of the “crisis of Marxism” in the early twentieth century, which increasingly saw the necessity of articulating the multiple, dissimilar demands of advanced industrial society to the working class struggle for socialism and democracy in the face of fascism, which also incorporated a wide range of demands to its aims with increasing success.<sup>97</sup>

In examining the technological imaginary of wartime Japan, I illuminate how fascist ideology and power operated in Japan by seeking to mobilize the creative energies of the people through the trope of technology. Technology

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<sup>96</sup> Ibid., 56, 158.

<sup>97</sup> For a history of the “crisis of Marxism” and attempts by socialist theorists such as Rosa Luxemburg, Richard Bernstein, and Antonio Gramsci to think beyond this impasse, see Ibid., 7-91. The Comintern abandoned the limited notion of “class against class” in August 1935 in favor of “Popular Fronts” of multiple struggles against fascism. Ibid., 62. As we shall see, the Popular Fronts in Europe form an important backdrop to Nakai’s political theory and practice.

in wartime Japan actively incorporated and defined itself as practical, transformative, and thoroughly political in working to bring about a utopian New Order in East Asia. However, in highlighting the practical, creative nature of technology, Japanese intellectuals also revealed its fundamental ambiguity, which could be employed for egalitarian, radically democratic purposes as well. Two notions of “the political” were revealed through this creative ambiguity inherent in the technologies structuring all areas of life—the political as rational principles, norms, and tasks rooted in determinate socio-political subjects (i.e. the working class, women, and ethnic minorities) within a totalized system and the political as the contingent articulation of new political identities, relations, and objectives among multiple subject positions in an open system. Both notions of the political sought to transform social relations for radically different purposes—fascist totalitarianism and radical democracy. In light of a growing awareness among scholars, activists, and artists of a pervasive “technocratic consciousness” that continues to de-politicize people’s practical, ethical concerns today, my ultimate objective is to examine how technology tries to mobilize all areas of life and to re-think political practice when a purely oppositional, vanguardist, “class-struggle” type of politics has increasingly been incorporated into technological systems of control. As such, Japan’s wartime period—a time when the space for traditional forms of political dissent became increasingly impossible due to repression and mobilization—serves as a fertile ground for such a problematic.

Japanese names are rendered surname first, in accord with Japanese practice, except where a name has already been reversed by others to fit a non-Japanese publication.

**CHAPTER ONE**  
**TECHNO-IMPERIALISM AND THE NEW ORDER IN EAST ASIA: MÔRI**  
**HIDEOTO'S THEORY OF TECHNOLOGY**

**I. INTRODUCTION**

***The Technological Visions of Imperial Bureaucrats***

“Technology” (*gijutsu*—literally, “limb-skill”) was an important lens through which bureaucrats and intellectuals viewed Japanese and colonial society during the Fifteen Year War (1931-1945). For many, technology not only meant tools, machines, and objective techniques of production, but also included a subjective and ethical dimension as well. It was equated with all kinds of creation and production, not only the economic production of goods, but more widely, scientific, cultural, intellectual and institutional production, and even the production of citizens and subjects. Technology was often seen as representing creation and imagination, and it came to signify the specific ways by which a modern society, culture, or institution was formed and organized, not just the material means of production. In other words technology was not neutral but always embodied contested values and visions of modern society. Thus terms such as “economic technology,” “political technology,” and “intellectual technology” to distinguish the different types were prevalent in discussions of technology. Technology, for example, could simultaneously mean techniques of discipline and power such as formulating laws or establishing organizations, and as we shall see in other chapters, creative social practices such as techniques of using mass media to stimulate

critique or even invention and discovery within everyday techniques of leisure and consumption.<sup>1</sup>

This chapter will examine one such vision of technology—the imperial bureaucrat Mōri Hideoto’s broad notion of technology and technocracy as expressed in his many public speeches and articles between 1938 and 1944. My main thesis is that Mōri and other technocrats and intellectuals were instrumental in actively envisioning and constructing a society in Japan and East Asia based on a creative, rather than merely repressive concept of technology and power. For them, technology in the wide sense of the term formed the basis of this society, which would overcome the contradictions and problems of modern capitalist life. Mōri had different labels for such a society to describe its various aspects—the “production economy,” the “national people’s economy” (*kokumin keizai*), and even the “Symbiotic Body of East Asia” (*Dai tōa kyōseitai*). Such a society anticipates Michael Hardt and Antonio Negri’s description of post-war capitalist societies as “factory-societies.”<sup>2</sup> In the factory-society, production no longer simply encompasses

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<sup>1</sup> The meaning of technology takes on a similar meaning to Michel Foucault’s conception of power—the “microtechniques” of social control that proliferate without a plan throughout society in the form of institutions, forms of behavior, social architecture, and so on. These techniques of disciplinary power are not so much coercive and suppressive as they are creative and formative in guiding people towards the most productive use of their bodies. These techniques in turn generate unforeseen “ruptures” or tensions that generate creative forms of resistance. Technology openly takes on this broader meaning of subject/social formation in early twentieth century Japan—the numerous material and immaterial devices that produce the concrete social structure of society. Although not focusing on technology per se, Foucault’s conception of the Panopticon as a way that power infuses bodies and social relations rather than structures them from outside serves as a useful starting point for conceiving the discourse of technology in the early twentieth century. See Michel Foucault, *Discipline and Punish* (New York: Pantheon, 1977), 206-207. For examples of this creative notion of technology at work in early twentieth century Europe and the U.S., see Mikael Härd and Andrew Jamison, *The Intellectual Appropriation of Technology: Discourses on Modernity, 1900-1939*, (Cambridge: The MIT Press, 1998).

<sup>2</sup> Michael Hardt and Antonio Negri, *Labor of Dionysus: A Critique of the State-Form* (Minneapolis: University of Minnesota Press, 1994), 9.

material, economic production within the factory but scientific, cultural, intellectual, sexual, political, ethical and technological production as well—in short, the production (and reproduction) of life in its entirety. Keeping in mind the differences with the “factory society,” this chapter will explore how Mōri envisions East Asian society as a productive, technological, and “symbiotic” society.

In analyzing Mōri, I wish to provide a concrete example of the visionary, imaginative notion of technology that pervaded much of the ruling classes and therefore Japanese foreign and domestic policy during the period. In doing so, I hope to challenge the dominant conceptions of Japanese colonial modernity based on a narrow, simplistic definition of fascism as only irrational, ultra-nationalistic, anachronistic, and repressive.<sup>3</sup> The flipside of such a conception unquestioningly sees US and European colonial modernity during this period as more rational, democratic, and modern. By examining the technocratic thought of one of the chief ideologues of the Japanese

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<sup>3</sup> I roughly characterize fascism not only as the employment of power and violence for political ends, the spiritualist promotion of a unified, organic nation or race over the individual or a multiplicity of groups, and the rejection of class struggle, parliamentary politics, and capitalism, but also as the active mobilization of the popular energies of the people to revolutionize the social order. For more on such rational techniques by government and civic leaders in Japan to integrate women, students, workers, and others into larger groups, make them adopt scientific methods, and settle conflicts under the purview of state institutions, for example, see Yasushi Yamanouchi, J. Victor Koschmann, and Narita Ryuichi, eds., *Total War and 'Modernization,'* (Ithaca: Cornell University East Asia Program, 1998). In short, I disagree with the modernization school of thought represented by thinkers such as Maruyama Masao who characterize Japanese fascism narrowly as the repression of subjective freedom and failure to develop a moral, private sphere separate from the state. Maruyama therefore focuses on the so-called particular characteristics of Japanese fascism such as emperor-centered familialism and agrarianism, and he ignores the many efforts by bureaucrats and intellectuals to incorporate and mobilize “active and free subjectivity” into the imperial project itself, many of which are continuous with post-war Japanese efforts by many of the same people to create a “democratic” and prosperous Japan. See Maruyama, Masao, “Theory and Psychology of Ultra-Nationalism” and “The Ideology and Dynamics of Japanese Fascism” in Morris, Ivan, ed., *Thought and Behaviour in Modern Japanese Politics*, (Oxford: Oxford University Press, 1969), 1-24 and 25-83.

imperial bureaucracy, I hope to put this binary into question and outline a different conception of power and fascism, one which we cannot easily distance ourselves from or label as particularly “Japanese” or “German,” for example—one that might even be increasingly characteristic of post-war capitalist societies and technocratic forms of control.

## II. HISTORICAL PROFILE

### *The Reform Bureaucrats*

Môri was a prominent “reform bureaucrat” (*kakushin kanryô*), a close group of right-wing bureaucrats, intellectuals and military officers who were at the center of economic policymaking, planning and administration both domestically and in the colonies during much of Japan’s fifteen-year war.<sup>4</sup> “Totalitarian in conception, the vision of these bureaucrats involved the rational and efficient mobilization of the material, political, scientific, and cultural resources” of the colonies, which also included winning “the hearts and minds of the people.”<sup>5</sup> Most of them graduated from Tokyo University in the 1920s, and were heavily influenced by Marxism there. After graduation, they gained hands-on experience in industrial planning and establishing a “control economy” in Manchuria and China in the mid-1930s, and went on to become section chiefs (*kachô*) and bureau directors (*kyokuchô*) in the Ministries of

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<sup>4</sup> Much of this historical profile comes from the following sources: Itô Takashi, “Môri Hideoto ron oboegaki” (Notes Toward a Theory of Môri Hideoto) in Itô Takashi, *Shôwaki no seiji (zoku)* [The Politics of the Showa Era] (Tokyo: Yamakawa shuppankai, 1993), 235-239. Mimura, “Technocratic Visions of Empire,” 223-253. Hata Ikuhiko, *Kanryô no kenkyû* [Studies on Bureaucrats] (Tokyo: Kôdansha, 1983), 129-133. Furukawa Takahisa, *Shôwa senchûki no sôgô kokusaku kikan* [The Comprehensive National Planning Organs of the Showa Wartime Period] (Tokyo: Yoshikawa kôbunkan, 1992), 114-121.

<sup>5</sup> Prasenjit Duara, *Sovereignty and Authenticity: Manchuria and the East Asian Modern* (Lanham: Rowman & Littlefield Publishers, Inc., 2003), 67.

Finance, Commerce and Industry, Railways, Agriculture and Forestry, Home Affairs, and Communications, as well as the leaders of the “comprehensive national policy organs” (*sôgô kokusaku kikan*) such as the Cabinet Planning Board (*Kikakuin*) and Manchuria Planning Agency from the beginning of the Sino-Japanese War until Japan’s defeat (1937-1945).<sup>6</sup> People such as Kishi Nobosuke,<sup>7</sup> Shiina Etsusaburô,<sup>8</sup> Minobe Yôji<sup>9</sup>, and Okumura Kiwao<sup>10</sup> counted as among their members.<sup>11</sup>

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<sup>6</sup> Furukawa, “Shôwa senchûki,” 18-19.

<sup>7</sup> Kishi was a protégé of Yoshino Shinji at the Ministry of Commerce and Industry, and a strong proponent of the Industrial Rationalization Movement, which sought to organize firms into cooperative industrial cartels and introduce the latest technology and management techniques to improve efficiency and cut costs. See Tsutsui, 58-90. Influenced much by his time spent researching the Industrial Rationalization Movement in Germany, he emphasized the spirit of “cooperative action” among producers, sellers, consumers, scholars and bureaucrats in establishing a “national economy” different from a competitive, wasteful, capitalist one. He helped draft the 1931 Important Industries Control Law, which enforced the organization of industry-wide cartels and thus established the precedent for state intervention in private enterprise for the sake of the “public good.” See Mimura, “Technocratic Visions,” 48-56. From 1937, Kishi presided over the transformation of Manchukuo’s national economy into a “national defense economy” as head of Manchukuo’s Industrial Department and later vice-chief of the General Affairs Agency. He presided over the Important Industries Control Law of 1937 in Manchukuo, which sought to incorporate private industry’s management expertise, capital, and technology into the military’s plans to build a self-sufficient, heavy industrial “Japan-Manchuria economic block.” He successfully lured Nissan’s Ayukawa Gisuke to Manchuria to set up Manchurian Industries (*Mangyô*), a semi-private steel, light metals, automobile, aircraft and mining conglomerate to revitalize the overly bureaucratic South Manchurian Railway (*Mantetsu*). Kishi returned to Japan in 1941 and took over the post of vice-minister of the Ministry of Commerce and Industry. Here he took the leading role in implementing the “New Order for Industry,” which re-organized industries into “Control Associations” or public “production cooperative bodies” and restricted profit and dividend rates. *Ibid.*, p. 285-296. As commerce minister and vice-minister of munitions under Prime Minister Tôjô Hideki, he directed the war economy, presiding over the expansion of executive powers to order wartime production expansion and centralization of the economic ministries to facilitate faster communication with industry. After the war, he was imprisoned for three years as a class A war criminal. Joining politics soon after, he was instrumental in uniting all the conservative parties into the powerful Liberal-Democratic Party (LDP), which ruled for much of Japan’s post-war history. Kishi was party president and prime minister from 1957-1960. He is often credited with continuing many of the technocratic policies pursued in Manchuria during the war into the post-war period, therefore facilitating Japan’s high-speed economic growth. For more in English on Kishi’s career, see Chalmers Johnson, *MITI and the Japanese Miracle: The Growth of Industrial Policy, 1925-1975*, (Stanford: Stanford University Press, 1982).

<sup>8</sup> Shiina was Kishi’s right-hand man at the Commerce and Industry Ministry and head of the Control Section within the Industrial Department of Manchukuo. Here he established the Temporary Industrial Research Bureau, a think tank that replaced Mantetsu’s Economic

## ***Môri's University Years***

Originally planning to pursue a journalism career, Môri graduated from Tokyo Imperial University's law department in 1925, majoring in political science.<sup>12</sup> At Tokyo University, he was actively involved in the Yanagashima settlement, a social welfare project that aimed to actively combat the causes of poverty following the 1923 Great Kantô Earthquake. The movement consisted

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Research Association as the leading organ for studies on developing and administering Manchuria's heavy industrial economy, and he helped draft the Important Industry Law. Shiina then became director of the Commerce Ministry's General Affairs Bureau under Kishi, which formulated many of Japan's wartime industrial control laws. At the height of the war, he was head of the General Mobilization Bureau of the Munitions Ministry, which became the sole comprehensive planning agency for national policy, taking over the functions of the Cabinet Planning Board and Commerce Ministry. Like Kishi, he entered into politics after the war, becoming Minister of International Trade and Industry (MITI, post-war equivalent of the wartime Ministry of Commerce and Industry), Minister of Foreign Affairs, as well as a top factional leader within the LDP. Mimura, "Technocratic Visions," 141-143, 285, 351-353. For Shiina's influence on creating continuity between the pre-war Munitions Ministry/Ministry of Commerce and Industry and the post-war MITI, see Johnson, 168-172.

<sup>9</sup> Commerce and Industry bureaucrat who was heavily influenced by socialist thought as a student at Tokyo Imperial University. From 1935 to 1938, he served in the Planning Division of the General Affairs Agency, helping to design the very successful first Five-Year Plan for Manchurian Industry and the Important Industries Control Law. Here he also forged close relations to military officers and other "reform bureaucrats" like Môri and Sakomizu Hisatsune (finance bureaucrat). From 1938, he returned to Japan as an official at the Commerce Ministry and Cabinet Planning Board, where he was involved mainly with controlling the cotton industry and regulating commodity prices. Furukawa, "Shôwa senchûki," 122-23.

<sup>10</sup> Okumura was a top bureaucrat in the Ministry of Communications who advocated state control of postal, telegraph and telephone services to further the "development of culture" and promotion of social welfare. Mimura, "Technocratic Visions," 60. In Manchuria, he helped establish the "special company," Manchurian Telephone and Telegraph, to control the communications facilities in Manchuria and coordinate communications services between Japan and Manchuria. *Ibid.*, 175. His interest in developing communications services also stemmed from his recognition of their importance for state propaganda—domestic and foreign. He drafted the Electric Power Control Law, which called for state management of electric power generation and transmission, including setting rates, distributing profits, and hiring and dismissing employees (passed in watered down form in 1937 after resistance from business). Along with Môri, he was one of the chief ideologues of the reform bureaucrats at the Cabinet Planning Board, calling for the spiritual and material mobilization of the people to create a "higher cultural system" to replace individualistic liberal capitalism. At the height of the war, he was deputy chief of propaganda at the Cabinet Information Bureau, which led the information war and exercised control over scholarship, research, and cultural and literary activity. He made frequent propaganda speeches on the radio, urging increased sacrifice and perseverance for the emperor and for the "liberation of Asia." *Ibid.*, 336-341.

<sup>11</sup> See Furukawa, "Shôwa senchûki," 121-125 for short backgrounds on these people.

<sup>12</sup> Itô, "Mori oboegaki," 236.

of a large group of leftist faculty and students who built and lived in settlement houses in the poorer districts of Tokyo and also constructed houses, schools, and day care centers, for example. They also provided medical and legal assistance, conducted social research, and taught adult education classes. Mōri apparently tutored workers at the settlement's labor school.<sup>13</sup> He also became close to the diplomat and co-founder of the proletarian Social Masses Party, Kamei Kanichirō, who was later instrumental along with Asō Hisashi in mobilizing the labor movement to support the Japanese imperial project and “new order” policies at home.<sup>14</sup> Kamei came to regard Mōri as his most trusted personal secretary and “brain,” later involving him in his failed project (ordered by Prime Minister Konoe Fumimarō in 1938) to establish a national mass party that would dissolve all party divisions and unify the people towards constructing the “New Order in East Asia.”<sup>15</sup> Kamei taught him German and

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<sup>13</sup> Furukawa, “Shōwa senchūki,” 114. Mimura, “Technocratic Visions,” 129.

<sup>14</sup> Takashi Itō, “Shōwa jūshūnen Konoeshintō mondai kenkyū oboegaki” (Notes Toward a Study of the Konoe “New Party” Question in 1938) in Nihon seiji gakkai, ed., *Konoeshintaisei no kenkyū* [Studies on the Konoe New Order] (Tokyo: Iwanami shoten, 1972), 143. Kamei spent time in Germany as a diplomat, studied with the Nazi geopolitical theorist, Karl Haushofer (who coined the term, *Lebensraum* or “space for living”), and became an enthusiastic proponent of Nazi economic policies and their technocratic worldview. According to Mimura, Kamei also helped establish the Japan Artisan Club (Japan's leading political action group for engineers and technologists) with Miyamoto Takenosuke, advised Nagata Tetsuzan (leading technocratic military officer) on ideology and political strategy, and Prime Minister Konoe on the establishment of a “Technology Board” that would centralize and encourage scientific and technological innovation. See Mimura, “Technocratic Visions,” 227-228. Thus much of Mōri's thought on technology and technocracy was shaped by his close relationship with Kamei.

<sup>15</sup> Kamei was Mōri's distant relative and Mōri later married Kamei's daughter. *Ibid.*, 225, *Kamei Kanichirō danwa sokkiroku*, [Shorthand Record of a Dialogue with Kamei Kanichirō] ed. Nihon kindai shiryō kenkyūkai (Tokyo: Nihon kindai shiryō kenkyūkai, 1969), 38. See Itō, “Konoeshintō mondai,” for more on this movement. As we shall see, Mōri discusses this vision of a national party in many of his writings. He was a member of the so-called “Kamei Group,” a research group that viewed the Sino-Japanese War as a “world-historical event” that would usher in a new world order. They conducted research on how to resolve the war and organize a new Chinese-Japanese mass party, for example. They concluded that the war would only be resolved through the formation of an “East Asian Cooperative Body” founded upon a totalitarian national party. Thus they resolved to begin efforts to first form a mass totalitarian party in Japan. See Furukawa, “Shōwa senchūki,” 114.

French, and also introduced him to the thought of the German totalitarian economists, Werner Sombart, Friedrich Göttl-Ottlilienfeld, and Othmar Spann.<sup>16</sup> Thus Mōri was exposed to a wide range of progressive and rightwing reformist thought at Tokyo University, and was even actively involved in organizing workers. It is likely that these contacts and activities later came to influence his technological/technocratic visions of society.

### ***Mōri in Manchuria and China***

At the insistence of his parliamentarian father and through the recommendation of Kamei, Mōri joined the prestigious Finance Ministry as a tax official. He secured a position among the second group of bureaucrats sent to establish and administer Manchuria's economy in 1933, again with the help of Kamei.<sup>17</sup> He was the only one in the group who volunteered to go to Manchuria, many of who were fearful of the violence, harsh conditions, and the Kwantung Army's tyrannical reputation.<sup>18</sup> He served as an official in "Manchukuo" and China from 1933 until 1938. In the General Affairs Agency (*Kokumuin sōmucho*), the agency that effectively wielded power in Manchukuo along with the Kwantung Army's Third Division, he was head of the Special Accounts Division and later head of the National Tax Section, which was charged with establishing Manchukuo's financial system. According to Furumi Tadayuki, Mōri helped establish the powerful Cabinet Planning Section, which eventually became Manchukuo's central planning bureau for economic policy, and Kamei even unsuccessfully asked Hoshino Naoki, head of the General

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<sup>16</sup> Nihon kindai shiryō kenkyūkai, 37, Furukawa. "Shōwa senchūki", 119-121.

<sup>17</sup> Mimura, "Technocratic Visions," 223.

<sup>18</sup> Hata, 130. Mimura, "Technocratic Visions," 136.

Affairs Agency, to appoint Mōri as its head.<sup>19</sup> In May 1937, Mōri moved to China as an economic advisor to Japanese military headquarters in Tientsin and later to the Army's Special Affairs Section in Peking. He developed close ties to military officers such as Akinaga Tsukizō<sup>20</sup> and Suzuki Teiichi,<sup>21</sup> and he

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<sup>19</sup> Furumi was the right-hand man to Hoshino Naoki, head of the General Affairs Agency in Manchuria. Ibid., 223-234. Nihon kindai shiryō kenkyūkai, 196. Furumi Tadayuki, *Wasureenu manshūkoku* [Unforgettable Manchukuo] (Tokyo: Keizai ōraisha), 101-102.

<sup>20</sup> Colonel Akinaga was one of the army's leading economists, starting his career designing total war mobilization plans at the Army Ministry. He was later sent to Tokyo Imperial University, where he studied Marxism intensively. In Manchuria, he was the army's economic adviser to the General Affairs Agency, where he helped draft Manchukuo's Five-Year Plans for industrial development and pushed for the establishment of a centralized Planning Section. As a top research official in Japan at the Cabinet Planning Board's First Department, he headed the "Deliberation Room," which formulated policy to reform Japan's "liberal-capitalist" industrial structure, management style, financial system, method of promoting technological research, and organization of labor with the goal of eventually creating a non-capitalist, production-oriented "new order" in Japan and East Asia. Sakomizu, Minobe, and Mōri were referred to in the press as Akinaga's "three ravens" or chief planners. See Furukawa, "Shōwa senchūki," 123-124. Mimura, "Technocratic Visions," 285-286. *Yōyōko: Minobe Yōji tsuitōroku*, [Minobe Yōji Memorial Record] ed. Nihon hyōron shinsha (Tokyo: Nihon hyōron shinsha, 1954), 180, 318.

<sup>21</sup> General Suzuki was a leading member of the "Control Officers" at the Army Ministry, who pushed for the mechanization and rationalization of Japan's military and the development of a heavy industrial total war economy. Possessing an active interest in economics, he was influenced by the writings of Kawakami Hajime (one of Japan's leading Marxist economists) and spent one year at the Finance Ministry in 1919. In China, he was military attaché and head of the army's Manchuria-Mongolia Affairs unit, where he requested Okumura's assistance in establishing Manchuria's telecommunications industry. Mimura, "Technocratic Visions," 174. At the Cabinet Research Bureau, the precursor to the Cabinet Planning Board (wartime comprehensive national policy organ), he oversaw the production of the famous army pamphlet, "The True Meaning of National Defense and Proposals for its Strengthening," which called for the "nationalization of heavy industry, limits on private property and land ownership, and elimination of the peerage system." Ibid., p. 265. This leftwing, populist pamphlet greatly influenced the reform bureaucrats' "New Order" policies for industry, science-technology, labor, finance, land reform, and establishing a Japan-Manchuria-China economic block. At the bureau, he was also instrumental in establishing a Welfare Ministry in 1937, designed to promote "national health" by creating a national health insurance system and centralizing the administration of hospitals. He also helped push through Okumura's controversial Electric Power Control Law and led efforts to increase the bureau's powers to plan resource mobilization and set national production goals to achieve economic self-sufficiency. Michael Barnhart, *Japan Prepares for Total War: The Search for Economic Security, 1919-1941* (Ithaca: Cornell University Press, 1987), 70-73. Suzuki then became head of the Political Affairs Department of the Asia Development Board, a comprehensive national policy planning organ set up by the Cabinet Planning Board, designed "to provide unified civilian and military leadership over the political, economic, and cultural affairs of the expanding occupied territories in Japan." Mimura, "Technocratic Visions," 234. At the height of the war, he served as head of the Cabinet Planning Board and Minister of State for the Tōjō

openly boasted of his good relations with the Kwantung Army.<sup>22</sup> Mōri did not write very much about his experiences in Manchuria and China, and there are few references by his colleagues about his role there. He participated in a roundtable in the capital, Xijning, sponsored by the leading business magazine, *Tōyō Keizai* (Oriental Economist), on the state of Manchukuo's planned economy, which brought together all of Manchukuo's leading bureaucrats such as Hoshino (head of General Affairs Agency), Akinaga, and Shiina. Here, he discussed his role in rationalizing and streamlining Manchukuo's tax system.<sup>23</sup> Also, judging from the numerous reports, top-secret policy drafts, letters, and directives he kept, Mōri was somewhat involved in the unification of the various Chinese currencies into a yen-bloc; the establishment of banks such as the China Industrial and Commerce Bank; the construction of roads, ports, communications networks, and railroads; and the promotion of heavy industry, labor productivity and natural resource production in Manchuria and China.

While in Manchuria, Mōri developed close ties to the right-wing ideologue, Sugihara Masami, who was conducting a study tour under the sponsorship of Lieutenant General Nagata Tetsuzan.<sup>24</sup> Sugihara founded

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cabinet. After the war, he was sentenced to life imprisonment as a Class A war criminal, but he was released after six years.

<sup>22</sup> Hata, 131.

<sup>23</sup> Akinaga Tsukizō, Hoshino Naoki, Mōri Hideoto, Shiina Etsusaburō, Takahashi Kōjun, et. al. "Manshūkoku keizai no genchi zadankai," (On Location Roundtable on the Manchukuo economy), *Tōyō keizai shinpō* [The Oriental Economist], (Oct. 24, 1936):36.

<sup>24</sup> Itō, "Mōri oboegaki," 236-237. Based on his experiences in Europe during World War I conducting research on war mobilization, Nagata was Japan's leading proponent of the "total war mobilization" of society. The leader of the "Control Faction" (*tōseiha*) of officers and bureaucrats, he helped establish the Resources Bureau, which was a research organ for developing the spiritual and material resources necessary for total war. He was also head of the Army Ministry's powerful Military Affairs Bureau during the early 1930s, which was in charge of centralizing and rationalizing Japan's economy and military for total war, often against the grandiose, unrealistic visions of fanatical "Imperial Way" (*kōdōha*) officers. He was assassinated by one of these officers in August 1935. Tōjō, Suzuki, Akinaga, Ikeda Junkyū,

*Kaibô jidai* (Era of Analysis), an anti-liberal journal that was popular among reform bureaucrats, and one of the most vocal proponents of forming a totalitarian mass party, establishing an “East Asian Cooperative Body” (*Tôa kyôdôtai*), and creating a fully planned and mobilized anti-capitalist economy organized by work or “function.”<sup>25</sup> Mōri became a regular contributor to this monthly journal upon his return to Japan in 1938, using the penname Kamakura Ichirô. It was here that he outlined most of his ideas and visions of a technological society in East Asia from 1938 until 1944.

### ***Asia Development Board and National Policy Research Association***

Upon returning to Japan in 1938, after serving shortly in the Finance Ministry’s Deposits Bureau, he became the division chief of the newly-created Asian Development Board’s Economic Section, which directed research and planning for the development of North China, including the administration of the North China Development Company and the Central China Promotion Company.<sup>26</sup> The Asian Development Board was established to unify and centralize policy towards China under civilian control. It was headed by the prime minister and divided into four sections—political, economic, cultural and technological affairs.<sup>27</sup> Major General Suzuki, head of the political affairs

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and Mutô Akira were among his followers. Mimura, “Technocratic Visions,” 21-23. For more on Nagata and other “total war officers,” see Barnhart.

<sup>25</sup> According to Itô Takashi, Nagata funded the journal. Itô, “Mōri oboegaki,” 237. Sugihara said that he first learned the concept of “East Asian Cooperative Body” from Mōri in their many discussions in Manchuria. Itô, “Konoe shintô mondai,” 163. He published a book of the same name in 1940. See Sugihara Manami, *Tôa kyôdôtai no genri* [The Principles of the East Asian Cooperative Body] (Tokyo: Modan Nihonsha, 1940).

<sup>26</sup> Mimura, “Technocratic Visions,” 242.

<sup>27</sup> Imura Tetsuo, “‘Kôain chôsa hôkoku sômokuroku’ kaisetsu” (Commentary on the Catalog of the Asian Development Board’s Research Reports) in *Jyûgonen sensô jûyô bunken shirizu (17): Kôain kankô tosho zasshi mokuroku*, [The Important Documents of the Fifteen Years War Series No. 17: Catalog of Books and Periodicals Published by the Asian Development Board] ed. Imura Tetsuo (Tokyo: Fuji shuppan, 1994), 3.

division and later director of the Cabinet Planning Board, said Mōri was a rising star at the Board and his most trusted adviser.<sup>28</sup> During this time, Mōri also actively participated in Yatsugi Kazuo's National Policy Research Association (*Kokusaku kenkyūkai*), a think-tank consisting of influential scholars, bureaucrats, and military officers, which rivaled the Shōwa Research Association in terms of influence over national policy. Mōri gave several talks here, including one entitled, "Development Toward an East Asian Cooperative Body," and participated on the National Defense Economy Committee, which compiled a "Proposal to Reorganize Economic Structures" in 1940 as part of the process of envisioning Prime Minister Konoe's "New Order" movement.<sup>29</sup> During this time, he was also a member of the secret "Monday Group" (*Getsuyōkai*), a group of high-level reform bureaucrats and officers who privately met every Monday in preparation for the Tuesday cabinet meeting to formulate and coordinate policies. Mutō (head of Army Ministry's Military Affairs Bureau, avowed expansionist), Yatsugi, Akinaga, Iwakuro Hideo (Military Affairs Bureau), Okumura, Kashiwara Heitarō (Railway Ministry), Kawamura Sanrō (Military Affairs Bureau), Kishi, Sakomizu, Shiina, Shigemasa Seishi (Agriculture and Forestry Ministry), Taniguchi Tsuneji (Finance Ministry, Budget Bureau Head), and Minobe were also members of this tightly knit group.<sup>30</sup> At his home in Kamakura, Mōri had many visitors,

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<sup>28</sup> Mimura, "Technocratic Visions," 242.

<sup>29</sup> Yatsugi Kazuo, *Shōwa dōran shishi* [Private History of the Showa Upheaval] (Tokyo: Keizai ōraisha, 1971-1978), vol. 1, 491, vol. 2., 210-211. Both think tanks gained in importance in the aftermath of the attempted right-wing coup (2.26 Incident) in 1936 and the establishment of the Konoe cabinet in 1938. The National Policy Research Association consisted mostly of well-established, mid-level or higher people from business, government, academia, and the military, and they had strong connections to the army. The Shōwa Research Group, on the other hand, consisted of younger people from each area, and they had strong connections to the navy. Both were "reformist" and technocratic in orientation. See Furukawa, "Shōwa senchūki," 34-35. For more on the Shōwa kenkyūkai, see Fletcher.

<sup>30</sup> Furukawa, "Shōwa senchūki," 113-114.

including younger officials at the Finance Ministry, students, and even Chinese exchange students.<sup>31</sup>

At the Asia Development Board, he also became close to the civil engineer, Miyamoto Takenosuke, head of the Board's Technology Division and the leading figure of the technocracy movement in Japan. From 1918, Miyamoto and other members of the Japan Artisan Club (*Nihon Kōjin Kurabu*) mobilized engineers and bureaucrats into what became the Japan Technology Association (*Nihon Gijutsu Kyōkai*), a political interest group and national policy organ for technical engineers, bureaucrats, and intellectuals. They actively pursued an agenda to raise the status of technology experts in government and society by campaigning for the promotion of technological research, expansion abroad, and an increase in the employment of experts in positions of power, primarily through speaking tours, conferences, and their publication organ, *Gijutsu Hyōron* (Technology Review).<sup>32</sup> They viewed technology and technological method as integral parts of Japanese society—in fact as the very foundation of Japanese culture.<sup>33</sup> Upon being appointed head of the Technology Division, Miyamoto and Mōri immediately began work on formulating the “New Order for Science and Technology” in East Asia.<sup>34</sup> Passed in May 1941, the Cabinet Planning Board's “Outline for the Establishment of the New Order for Science-Technology” drew up measures to promote and centralize science and technology research, develop a coherent national policy for an independent “Japanese” science and

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<sup>31</sup> Hata calls them “avid Mōri fans.” Hata, 131.

<sup>32</sup> They even boasted of branches in Korea.

<sup>33</sup> Erich Pauer, “Japan's Technical Mobilization in the Second World War” in *Japan's War Economy*, ed. Erich Pauer (London: Routledge, 1999), 40.

<sup>34</sup> Miyamoto suddenly died in 1941. Pauer states that his death was a serious blow to the cause of the technology bureaucrats. *Ibid.*, 50.

technology, and foster a “scientific spirit” among the people through technical education. It also created a “Technology Board” (*Gijitsuin*), the brainchild of Miyamoto, which sought to centralize the science and technology research and policymaking functions of the various ministries.<sup>35</sup> The Outline also tried to force industries to share patents and knowledge with each other for mutual benefit.<sup>36</sup> The overall aim of the “new order” for science and technology according to Mōri, however, was to change the very meaning of technology from an inhuman, profit-driven means of production to a more human, people-driven expression of spiritual and material development. In addition technology would form the foundation for the development of a new Asia.

### ***The Cabinet Planning Board***

In 1941 Mōri became one of the chief policy planners of the Cabinet Planning Board, the comprehensive national policy organ that oversaw the aggressive implementation of the 1938 National General Mobilization Law (*Kokka sōdōin hō*). This law imposed broad controls on wages, employment, industrial relations, financing, and profit disposal, and it formed the basis for more detailed legislation to establish the “New Orders” of industry, finance, labor, and science and technology during the second Kono cabinet of 1940.<sup>37</sup> The “New Order” was the reform bureaucrats’ final and most radical attempt to transform the Japanese economy from a liberal capitalist economy to a

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<sup>35</sup> Mimura, “Technocratic Visions,” 304. Kawahara, 91.

<sup>36</sup> For more, see Sawai Minoru, “Taiheiyo sensō ki kagaku gijutsu seisaku no hito koma: kagaku gijutsu shingikai no setchi to sono katsudō,” (One Scene in the Science and Technology Policy of the Pacific War Period: The Establishment of the Science and Technology Deliberation Committee and their Activities), *Osaka daigaku keizaigaku* [Osaka University Economics] 4, no 2, (Oct 1994):1-23.

<sup>37</sup> Nakamura Takafusa, and Hara Akira, “Keizai shintaisei” (The New Economic Order) in Nihon seiji gakkai, ed., *Kono shintaisei no kenkyū* (Tokyo: Iwanami shoten, 1972), 13.

cooperative, technologically advanced, “production economy.” Mōri, Sakomizu, and Minobe were referred to in the press as the “three ravens” of the Board. According to Sakomizu, “Mōri was the one that thought up the themes, I was the one who somehow neatly composed them, and Minobe was the one who properly arranged them into a jazz and played them for the people.”<sup>38</sup> The business community attacked them as “reds” and communists for their efforts to establish Industrial Control Associations, separate management and ownership, control dividends and profits, and set production goals, among other things.<sup>39</sup> In 1941, a number of lower-level officials of the Board were arrested on charges of participating in the re-establishment of the Communist Party (the “Cabinet Planning Board Incident”). While this was a setback for the reform bureaucrats, the war allowed them to implement their visions in different form.

Mōri appears to have been directly involved in the planning of the “Japan-Manchuria-China Economic Block” while at the Board. The “Outline for Japan-Manchuria-China Economic Construction,” passed by the Cabinet in October 1940, clearly linked the reorganization of the national economy with the strengthening of Manchuria and China as the heavy industrial core of an expanding “Greater East Asian Co-Prosperity Sphere,” the new term for the Asian community that promised to “raise the living standard of the various peoples of East Asia.”<sup>40</sup> His name appears on a committee along with Akinaga and Minobe to create long-term plans for this economic block. As the war progressed, however, Mōri disappeared from the spotlight. With the dissolution of the Cabinet Planning Board into the Munitions Ministry, he

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<sup>38</sup> Itō, “Mōri oboegaki,” 235. *Nihon hyōronsha*, 129.

<sup>39</sup> Nakamura, and Hara, 18.

<sup>40</sup> Mimura, “Technocratic Visions,” 328.

resigned in 1943 and became a director of the Industrial Patriotic Association (*Sanpô*), the wartime labor mobilization organization that eliminated autonomous labor unions and replaced them with factory-level advisory councils or “*Sanpô* units” of management and workers.<sup>41</sup> Two months before the end of the war, he was a department head of the Comprehensive Planning Bureau (*Sôgô keikaku kyoku*). After the war he served as a researcher for the Cabinet Research Bureau but soon resigned because of health reasons. He died in 1947.

## II. MÔRI’S THEORY OF TECHNOLOGY

### *Creative Engineers and Economic Technologies*

Môri talks primarily about two kinds of technology—economic and production technology. Both are fundamentally linked to the creative energies and imagination of the people, and they are not simply physical machinery or techniques of production. First, he always refers to himself and other bureaucrats as “economic technicians” or “creative engineers.”<sup>42</sup> In a 1941 roundtable with his colleagues Minobe, Sakomizu, and Kashiwara entitled, “Reform Bureaucrats Discuss the New Order,” Môri says, “We must transform ourselves from legislative bureaucrats into creative bureaucrats. Although this is a strange term, the same applies to the technological aspect [of our work]: up to now, we were only conservative engineers who drafted, managed, and

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<sup>41</sup> Gordon, 320-330. For more on *Sanpô*, see Saguchi Kazurô, “The Historical Significance of the Industrial Patriotic Association: Labor Relations in the Total-War State” in Yamanouchi, et.al., “Total War and Mobilization,” 261-288.

<sup>42</sup> Môri Hideoto, “Shina no sangyô kaihatsu,” (The Industrial Development of China) *Tôyô* [The Orient], (August 1939):73. Môri Hideoto and Miki Kiyoshi, “Ashita no kagaku nihon no sôzô” (The Creation of Tomorrow’s Scientific Japan), *Kagakushugi kôgyô* [Scientific Industry], (Jan. 1941): 196.

interpreted legislation. From now on, however, we have to be ‘creative engineers.’”<sup>43</sup> For Mōri economic technologies are the specific policies, institutions, campaigns, and laws needed to construct and organize the “East Asian Community” (*Tōa kyōdōtai*) in Japan, China, and Manchuria. Grounded in “synthesis, planning, and science,” economic technologies sought to transform Japan and its colonies from a capitalist order of liberalism and free trade into a rationally planned, self-sufficient “national economy” (*kokumin keizai*).<sup>44</sup> However, as Mōri states above, “economic technologies” are not merely definite means and techniques but require a certain type of bold, “creative bureaucrat” different from the typical drafter, administrator, and interpreter of arcane, minute legal codes. The ideal “leader” must “both grasp the deductive goals required by the nation (*minzoku*, ethnic nation) as a whole and the dynamic facts at work in their lives or their future potential” and then decide how to mediate and synthesize the two without doing violence to either, Mōri says at the same roundtable.<sup>45</sup> Bureaucrats must think a little less “deductively” from overall state goals and take into consideration the particular circumstances and interests of the people, while those who criticize the bureaucrats, particularly the business people, should think a little less “inductively” from out of their private interests, and take into consideration the interests of the whole, according to Mōri.<sup>46</sup> Thus, the role of the technocrat or “economic technician,” according to Mōri, is to be a “catalyst” between the

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<sup>43</sup> Mōri Hideoto, Sakomizu Hisatsune, et. al., “Kakushin kanryō: Shintaisei wo kataru zadankai” (The Reform Bureaucrats: Roundtable on Discussing the New Order), *Jitsugyō no Nihon* [Business Japan], (Jan. 1941): 54. Brackets mine.

<sup>44</sup> Kamakura Ichirō, “Jihen dai yon ki wa seiji o tenkai su” (The Fourth Period of the Incident Will Transform Politics), *Kaibō jidai*, (Dec. 1938):79. Kamakura was Mōri’s penname. Mōri, “Tai shi keizai gijutsu no sōzō,” (The Creation of Economic Technology Towards China), *Keizai jōhō*, (June 1939):100.

<sup>45</sup> Mōri, et. al., “Shintaisei o kataru zandankai,” 54.

<sup>46</sup> *Ibid.*, 55.

overall state goals of building the new non-liberal economic order and private economic or political interest.<sup>47</sup>

### ***The National Economy vs. The Liberal Economy***

The target of the creative bureaucrat's economic technology, according to Mōri, is the "liberal economic point of view" that permeated the economic life of Japan and East Asia.<sup>48</sup> Liberalism was based on the following five principles:

1. The foundation of all economic phenomena is the economic man, *homo economicus*. His material desire for fame and fortune is the motivating force of all economic phenomena.
2. Capital and capital profit are the pillars of economic life.
3. The essence of economic life is exchange. The market is formed from supply and demand; price is thereby constituted and dominates [society].
4. The state and taxes or any form of taxation policy arising from the state are a disturbance of the natural progression of the economy.
5. The regulator of all economic phenomena is the interest of each human being. This interest immediately brings about the harmony of all interests in nature.<sup>49</sup>

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<sup>47</sup> Ibid., 56.

<sup>48</sup> Mōri cites the Austrian economist, Othmar Spann, who pushed for the establishment of an authoritarian, corporate state, the German economist, Friedrich Göttl-Ottlilienfeld, follower of Spann and leading advocate of the Nazi totalitarian economy, and the nineteenth-century German economist, Friedrich List, who argued against free-trade classical economics and for the construction of a national economy, as influential to his thought on the anti-liberal "national economy." *Nihon hyōronsha, Yōyō*, 176. All of these economists were translated into Japanese. Mōri specifically cites List's *The National System of Political Economy* in Mōri, "Nihon kokumin keizai no keisei to seiji: hō toshite no 'tōa no shin chitsujo'" [The Formation and Politics of the Japanese National Economy: The "New Order of East Asia" as Law], *Kaibō jidai*, (April 1939): 31. For more on the intellectual influences and background of the "reform bureaucrats," see Furukawa, "Kakushin kanryō no shisō to kōdō" (The Thought and Actions of the Reform Bureaucrats), *Shigaku zasshi* [Journal of Historical Studies], (March 1990): 1-38.

<sup>49</sup> Kamakura, "Nihon kokumin keizai no keisei to seiji," 27.

Social relations in Japan were also based on these five principles of capitalism, according to Mōri. He writes:

The total development of this capitalist order...completely made the profit society the structure within the Japanese order. The entire people were subordinated to this common society of profit in some aspect of their lives. The essence of this common society of profit...is to oppose some other society, and a conflict of interest within one interest group becomes a division into another conflicting group, or the conflicting group then combines with yet another group, [and so on]. The profit society stands upon the principle of profit, and its actions find their rules in the action-principle of individualism.<sup>50</sup>

In this way conflict becomes the essence of society rather than mutual cooperation and development.

Moreover, until World War I, Japan's "national economy" merely had a "subordinate status" in the free-market world economy dominated by Great Britain's abundant resources and capital.<sup>51</sup> This nineteenth-century system posited itself as "natural law" to which Japan's national economy was subject.<sup>52</sup> Mōri writes:

This system itself was England's national economy. The Japanese economy, which formed one link in that system, in no way promised the eternal development of the Japanese nation (*minzoku*). In sum, under the system of free trade, the Japanese economy bought up raw materials from the world's cheapest places, processed them with cheap labor, and exported them; thus by re-processing imported raw materials, Japan bought its life necessities with the profit.<sup>53</sup>

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<sup>50</sup> Kamakura, "Kokumin saisoshiki to tōa kyōdōtai no fukabunsei" (The Inseparability Between the East Asian Cooperative Community and the Reorganization of the Nation), *Kaibō jidai*, (Jan. 1939):24-25. Brackets mine.

<sup>51</sup> Kamakura, "Tōa kyōdōtai to gijutsu no kakumei" (The Technological Revolution of the East Asian Cooperative Community), *Kaibō jidai*, (Mar. 1939): 6-7.

<sup>52</sup> *Ibid.*, 6.

<sup>53</sup> Mōri, "Shina no sangyō kaihatsu," 76.

Under liberalism, Japan merely sought to increase its participation within Great Britain's hegemonic order rather than develop a self-sufficient, independent "national economy."<sup>54</sup> It only became part of the "international economic division of labor."<sup>55</sup>

In order to overcome liberalism, new economic technologies were necessary that would instead make "the nation acquire the status of subject rather than object of the economy," and make "concrete" people (*kokumin*) directors and generators of the economy, rather than "abstract universal economic man" or the "natural or self-correcting economy."<sup>56</sup> Instead of so-called market forces, the "political power" of the nation or people represented by the new "creative engineers" would direct the economy for the benefit of all by "managing the total relations between natural resources, industry, finance and money, performed in accordance with the planned nature of the entire economy."<sup>57</sup>

To give an example of "economic technologies," Japanese bureaucrats typically dealt with the problem of price fluctuation by setting a "proper price" of a commodity, according to Mōri.<sup>58</sup> Ideally, this higher price would stimulate production to the point where prices would again lower naturally due to overproduction. He criticizes this type of economic technology, however, as one grounded in the profit principle of liberal capitalist economics—the assumption that the pursuit of profit will naturally correct the problem of high

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<sup>54</sup> Kamakura, "Tōa kyōdōtai to gijutsu no kakumei," 5.

<sup>55</sup> *Ibid.*, 6.

<sup>56</sup> Kamakura, "Nihon kokumin keizai no keisei to seiji," 26.

<sup>57</sup> Kamakura, "'Tōa ittai' toshite no seijiryoku" (Political Power as the Unity of East Asia), *Kaibō jidai*, (Nov. 1938):11.

<sup>58</sup> Kamakura, "Chūshōteki bukka to gutaiteki bukka" (Abstract Prices and Concrete Prices), *Kaibō jidai*, (April 1940):5.

prices.<sup>59</sup> Chronic price fluctuation cannot be fixed by such short-term band aid-type measures characteristic of a night watchman capitalist state, according to Mōri. Only by transforming the liberal economy into the planned production economy can this problem be fixed. Economic technologies should instead focus on stimulating the expansion of industrial “fixed capital” to create a firmer foundation for “expansive reproduction,” rather than the expansion of their “variable capital,” which merely seeks to expand demand within a market economy.<sup>60</sup> “Expansive reproduction,” rather than maintaining some sort of temporary market equilibrium should be the goal of national economic technology, according to Mōri. Moreover, national economic technologies should ultimately be concerned with the life of the people.<sup>61</sup> Thus a compulsory national health insurance scheme should be set up, for example, and health facilities, occupational assistance facilities, and housing facilities should be constructed through the imposition of a specific tax for this purpose.<sup>62</sup> This would enormously improve the health productivity of the people and the economy.<sup>63</sup> In short life itself is the focus of economic technologies, not the abstract market principles of capitalism. “Economic technologies” are a form of power aimed at stimulating creation and production in all areas of life through techniques of management and regulation, not a form of power geared solely toward repression and homogenization of society.

New economic technologies, however, are not only essential to encourage the active cooperation of the “Japanese nation,” but also of the

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<sup>59</sup> Ibid., 6.

<sup>60</sup> Ibid., 8.

<sup>61</sup> Mōri, “Seisan keizai no kompon rinen” (The Fundamental Ideals of the Production Economy), *Kagakushugi kōgyō*, (Oct. 1940):26.

<sup>62</sup> Ibid., 27.

<sup>63</sup> Ibid., 27.

colonial peoples in order to construct a planned, self-sufficient, and rapidly developing economy in East Asia; otherwise, the empire would become like a “many-storied building built on sand,” according to Mōri.<sup>64</sup>

### ***Economic Technologies in the Colonies***

Admitting in a 1942 or 1943 speech that he was an economic technician who “was defeated by the Manchurian and Chinese peasant,” Mōri criticizes others who crudely divided the average Chinese person’s life into technical categories of industry, agriculture, and economics, rather than take an integrated, total approach more in tune with local socio-economic relations and conditions.<sup>65</sup> The economies of Manchuria and China have a tremendous variety of productive conditions and relations ranging from feudal to capitalist to a mixture of both, according to Mōri. He states his overall philosophy of economic technology towards China and Manchuria:

[T]he forms of economic activity are given greater variety by the conditions of production, which are determined by the particular social conditions, and probably have a variety ranging from A to Z, for instance. In such a case, when the economic technology A’, which arose amidst the commercial capitalist economic activity of Japan, is applied to the life spaces of Manchuria and China, the economic

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<sup>64</sup> Kamakura, “Tōa kyōdōtai to gijutsu no kakumei,” 12. Mōri always employs the term, *minzoku* (nation, ethnicity), in a plural fashion. The “Japanese nation” therefore consists of Taiwanese, Koreans, and the peoples of the Japanese archipelago. Mōri never employs a “blood nationalism” argument in his writings, but rather, a more plural and incorporative ethnic nationalism. For Mōri’s idea of the Japanese nation as one of the world’s “superior plural nations,” see the speech, Mōri, “Dai tōa sensō o tsūjite” (Through the Great East Asian War), *Mōri Hideoto monjo* [Mōri Hideoto Papers], Document 213, 1942 or 1943, Pages unnumbered. Suzuki Teiichi associated Mōri with pan-Asianism in contrast to Mutō Akira, a senior officer in Manchuria and China, who was an uncritical follower of Nazism. Mutō later became an active figure in the more reactionary and spiritualist Imperial Rule Assistance Association in the early 1940s. Mimura, “Technocratic Visions,” 229-230. More on Mōri’s idea of *minzoku* later.

<sup>65</sup> Mōri, “Dai Tōa sensō o tsūjite,” page unnumbered

activities of B' to X'Y'Z' are occluded. Therefore, a total, cooperative relationship among the economic activities of these spaces cannot be formed, a partial relationship of domination towards Manchuria and China is established, and in the end, a large portion of economic life becomes separated from a cooperative relationship.<sup>66</sup>

Instead of arrogantly applying Japanese policies (“capitalist economic technology”) in a uniform manner, bureaucrats should strive to integrate them with China and Manchuria’s complex, particular conditions—only then could they truly build the “East Asian Community.” Mōri urges Japanese economic technicians to understand and synthesize the “life technologies” of the various ethnicities into their economic technologies for designing the planned economy in East Asia.<sup>67</sup> They must not only be able to think of the “primary equations,” but the “tertiary” and “quaternary” economic equations as well; otherwise, the “life consciousness” of the people and the “synthesizing consciousness” of the creative bureaucrats would not come together.<sup>68</sup>

Mōri gives several anecdotes of the “wider economic technology” towards the colonies he had in mind.<sup>69</sup> For example, he mentions how “agricultural technicians” who first came to the colonies simply set up the same agricultural research stations they did in Japan and forced nearby peasants to plant experimental seeds. After encountering much resistance, they decided to use other techniques. Mōri recounts an instance in Northern China where they gathered elementary school teachers from 2300 villages and lectured for several days on purchasing, cultivating, harvesting, and selling cotton in that

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<sup>66</sup> Mōri, “Tai shi keizai gijutsu,” 100, 105.

<sup>67</sup> Mōri, “Dai Tōa sensō o tsūjite,” page unnumbered. The leading theorist of technology, Aikawa Haruki, uses this term “life technologies” in his 1942 work, *Introduction to a Theory of Technology*. See Chapter 2, “Technology in Life” in Aikawa Haruki, *Gijutsuron nyūmon*, (Tokyo: Mikasa shobō, 1942), 26-50.

<sup>68</sup> Mōri, “Dai Tōa sensō o tsūjite,” page unnumbered.

<sup>69</sup> Mōri, “Haihin kaishū roku” (Record of Recycling Waste), *Kagakushugi kōgyō*, (Dec. 1939):164.

particular region and terrain. After providing the teachers with free cottonseed, the teachers returned to their villages and asked students to plant them. A good crop would guarantee the propagation of cotton planting throughout the village and set the stage for the establishment of a local cottonseed factory, thereby further increasing future cotton production.<sup>70</sup> In a 1941 speech to the Social Policy Institute entitled, “On Constructing the East Asian Economy,” he recounts another instance where Japanese technicians helped build the central highway to Sinkiang using Japanese technology, only to see their roads crumble from the intensely cold temperatures. However, one provincial official was later able to make cheaper, more durable roads by working with local Chinese peasants.<sup>71</sup>

In the same lecture, he talks about how Home Ministry engineers used the Japanese technology of strengthening the riverbeds and banks of the Yellow River to control flooding in Manchuria. However, this did not work because unlike Japan where smaller floods occur frequently, in Manchuria large floods occur once every ten to forty years. Strengthening the riverbanks was not enough to handle such floods. Thus after three years, the Japanese engineers finally began to think in terms of the local conditions and built a system of artificial lakes and dams to siphon off floodwater.<sup>72</sup> He also talks about a Japanese coal mining company that repeatedly had to fire skilled Japanese technicians for beating Chinese miners because this would inevitably dampen enthusiasm and efficiency.<sup>73</sup> Thus in various ways, economic technicians introduced more flexible technologies that tried to

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<sup>70</sup> Mōri, “Shina no sangyō kaihatsu,” 79

<sup>71</sup> Mōri, “Tōa keizai kensetsu ni tsuite, dai ikkō” (On Constructing the East Asian Economy, First Lecture), *Mōri Hideoto monjo*, Sept. 1944. Document 218, page unnumbered.

<sup>72</sup> Ibid.

<sup>73</sup> Mōri, “Shina no sangyō kaihatsu,” 79

employ local knowledge and be more in tune with local conditions to ensure cooperation and productivity, rather than a “uniform technology,” which Mōri recognized would inevitably restrict Japan’s economy.<sup>74</sup> In a similar way that domestic economic technologies signified a form of power designed to mobilize and produce all aspects of life, colonial economic technologies were designed to co-opt dissent and redirect local knowledge and skill towards constructing the New Order in East Asia. In fact, many scholars have argued that Manchuria was a kind of “laboratory” for domestic policy.<sup>75</sup>

Frustrated by the continuing inability of Japanese bureaucrats and engineers to adapt to the varied conditions of the colonies and their inflexible, specialized nature, Mōri proposed at the height of the war to instead train them in the particular “life cultures” of the areas in which they would serve. In a speech entitled, “Through the Great East Asian War,” Mōri says that Hokkaido University in northern Japan, for example, should become a center for training leaders in the specific “life cultures” of Siberia and Manchuria, and Taipei University in the south should become a center for research and training on the “tropical life cultures” of the South Pacific and Southeast Asia.<sup>76</sup> Only leaders with a total, integrative grasp of the particular cultures in East Asia could incorporate them into a prosperous, heterogeneous “Greater East Asian Co-Prosperity Sphere,” not bureaucrats who specialize in minute areas or who artificially divide culture or economy into different specialized areas.

In a 1939 discussion among colonial bureaucrats at the National Policy Research Association entitled, “Roundtable on Re-thinking the Planned

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<sup>74</sup> Kamakura, “Tōa kyōdōtai to gijutsu no kakumei,” 11

<sup>75</sup> In English, see Louise Young, *Japan’s Total Empire: Manchuria and the Culture of Wartime Imperialism* (Berkeley: University of California Press, 1998). Johnson is also a good introduction in English to this type of argument.

<sup>76</sup> Mōri, “Dai Tōa sensō ni tsūjite,” pages unnumbered.

Economy through Japan, Manchuria, and China,” Mōri distinguishes between the “requisition economy” view whereby Japan exploits the natural resources of China and Manchuria for the war economy, and the reform bureaucrats’ “planned economy” view, whereby liberal capitalism is controlled and the economies of China, Manchuria, and Japan are integrated for the benefit of all its peoples.<sup>77</sup> “There is a big difference between using the Chinese economy and the well-being of China or the Chinese peoples,” he says.<sup>78</sup> The question of “requisition economy vs. planned economy” is especially important when “the political character of China today is in conflict with Japan,” Mōri adds.<sup>79</sup> He laments the fact that many bureaucrats were not wholly embracing their new roles as “economic technicians” of a planned economy in East Asia, and instead pushing for a temporary “requisition economy” to meet immediate war needs, which would then revert back to liberal capitalism after the crisis had passed.<sup>80</sup> They lacked a firm “political direction” or ethos for building an “independent” and “automatic” economy whereby bureaucrats would work with local colonial peoples to design and implement policy on the ground in line with the larger guiding ideals of the planned national economy.<sup>81</sup> Ultimately the planned economy would work like an automatic, well-oiled machine in which the individual parts work independently without too much management from above. Yet in the present urgent context of war with China, bureaucrats were still falling back on their old habits as specialized “legislative bureaucrats” rather than “creative engineers.” According to Mōri, many colonial bureaucrats

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<sup>77</sup> Ishimoto Itsuo, Kubo Kichizō, Shiina Etsusaburō, et al., “Nichi-Man-Shi o tsūzuru keikaku keizai no sai ginmi zadankai” (Roundtable on Reexamining the Planned Economy of Japan, Manchuria, and China), *Chōsa shūhō* [Weekly Investigations], (Feb. 9, 1939):3.

<sup>78</sup> *Ibid.*, 2-3.

<sup>79</sup> *Ibid.*, 3.

<sup>80</sup> *Ibid.*, 3.

<sup>81</sup> *Ibid.*, 3.

("tens") would come to the Asia Development Board every day to ask for advice on minute legislative details or on unimportant matters that they should not even be involved with.<sup>82</sup> Under the present trend toward a requisition war economy, bureaucrats must change their behavior of monitoring and supervising every aspect of the colonial economy, and instead formulate new economic technologies that take into account the range of economic conditions in China, according to Mōri.<sup>83</sup> The "narrow economic technology of making one hundred things into one" would only spell disaster for Japan by exacerbating the conflict with the Chinese people and preventing the formation of an East Asian Community, he writes.<sup>84</sup> If Japan continues to develop repressive, homogenizing technologies of power, the empire would definitely crumble, Mōri concludes.

### ***The National Life Organization and the Creative Energies of the Japanese Nation***

For Mōri, however, economic technology was not just something leaders carried out from above but needed to be grounded in a mass politics of collective mobilization both in the colonies and in Japan. Criticizing an "administrative control economy" whereby bureaucrats monitor and oversee economic phenomena as they arise, he calls for an active economic technology united with the "multiple life functions of national life."<sup>85</sup> He was a vocal proponent for establishing a "national life organization" (*kokumin seikatsu soshiki*), which he envisions as an "organic life system" of numerous

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<sup>82</sup> Ibid., 3.

<sup>83</sup> Ibid., 4.

<sup>84</sup> Ibid., 4.

<sup>85</sup> Kamakura, "Tōsei keizai no binkon no gennin" (The Cause of the Poverty of the Control Economy), *Kaibō jidai*, (Dec. 1939):16-18.

vocations (i.e. “life functions”) working for national goals. “Due to the complicated pluralization of life functions [in modern society], those who hold power should not violently squeeze the functions pursued by the people into something uniform, nor weaken the will and creativity of the people’s life activities,” he writes.<sup>86</sup> In pursuing his or her everyday economic activity, each individual would simultaneously realize national economic goals such as establishing basic raw materials factories and industries, developing an advanced economy based on high precision manufacturing machinery, and improving agricultural output.<sup>87</sup> Recognizing the importance of private economic initiative in improving production technology and creating new rational management techniques, the national life organization would not completely reject the principle of profit, but rather curb excessive speculation by taxing dividends and encourage reinvestment of profits into production.<sup>88</sup> Capitalists would take their place in the vocationalized, highly advanced national life organization as “industrial technicians” alongside workers, engineers, peasants, and bureaucrats.<sup>89</sup> Thus each person would not only gain a “concreteness” they did not have as abstract “economic individuals” in the liberal economic order but would also actively build the national economy, instead of being mere objects of social policy or “administrative technology.”<sup>90</sup> In this way the economic technologies employed by “creative bureaucrats” would be grounded in the “political power” of the national life organization.<sup>91</sup>

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<sup>86</sup> Kamakura, “Kokumin seikatsu soshiki no kiten” (The Foundation of the National Life Organization), *Kaibō jidai*, (Nov. 1939):6.

<sup>87</sup> Kamakura, “Kokumin keizai to shieki” (The National Economy and Private Profit), *Kaibō jidai*, (May 1939): 88.

<sup>88</sup> *Ibid.*, 86-87.

<sup>89</sup> *Ibid.*, 88. Kamakura, “Kokumin saishiki,” 24.

<sup>90</sup> Kamakura, “Tōsei keizai no binkon no gennin,” 16-17.

<sup>91</sup> Kamakura, “Tōa ittai’ toshite no seijiryoku,” 11.

Power would no longer be top-down and autocratic, but would be expressed productively and heterogeneously in the multiple life functions of the people. For Mōri, this is the expressive power of the Japanese *ethnos* or nation (*minzoku*).

The essence of this vocational, cooperative, and plural national life organization is the “life power of the Japanese nation (*minzoku*),” says Mōri.<sup>92</sup> In fact, the organization of society by vocation is a concrete articulation of national (*minzoku*) life power. He writes:

The development of the Japanese nation (*minzoku*) is the development of action that continues to live in eternal new life while containing something absolutely intrinsic, something immemorial of the ethnic nation that is alive within its essence. This makes one think of the life power of the two-faced Janus who had two different life powers. The life power of the Japanese nation, however, is not like Janus who had two separate life powers but rather, a unitary life power that eternally activates the intrinsic or essential into young, new life.<sup>93</sup>

Mōri always refers to this national “life power” throughout his essays and speeches. The history of Japan from ancient times through the Meiji Restoration to the recent “Manchuria and China Incidents” is the expression of this primordial life force that also manifests itself as a fundamental adaptability, plurality, and vigor to create anew. The beginning of the China-Japan War, according to Mōri, signifies the overcoming of the liberal capitalist world order and the formation of the mobilized, self-sufficient national economy through the national life organization. Therefore it represents the latest stage in the expression of the creative life power of the Japanese ethnic peoples. While

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<sup>92</sup> Kamakura, “Kokumin saisoshiki,” 22.

<sup>93</sup> *Ibid.*, 22.

technology signifies the creation of something new, it is also the expression of something eternal and immemorial.

Thus the Japanese nation (*minzoku*) should form an organic “total life system” of dynamic “life functions” organized and expressed by the national life organization.<sup>94</sup> He writes:

Although national culture becomes functionally more complex and multiple as it becomes more advanced, under the completed Japanese national order (*Nihon minzoku chitstujo*), we must be confident that no matter how complicated and multiple national culture becomes, every single life function can be vocationalized into the organic life system.<sup>95</sup>

In fact, complexity and multiplicity of vocations within the national life organization is only a further sign of national strength, and this should be “expanded and developed” even further.<sup>96</sup> Vocations in the advanced technological industries such as heavy chemicals and heavy industry would have a primary place in the national life organization, and their increasing proliferation throughout society further demonstrates national power.<sup>97</sup> However, as we saw above, the bureaucrats who ran the control economy were “taming the people’s will towards action in life” by “rejecting the multiplicity of the people’s life functions and bringing about their uniformity,” according to Mōri.<sup>98</sup> By undermining popular energies, bureaucrats were preventing the people from ultimately gaining a “firm conviction” in their own life functions, and further developing and expanding newer, more advanced ones.<sup>99</sup> The “reactionary” politics of the bureaucrats was obstructing the birth

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<sup>94</sup> Kamakura, “Kokumin seikatsu soshiki no kiten,” 6.

<sup>95</sup> Ibid., 6.

<sup>96</sup> Ibid., 6.

<sup>97</sup> Ibid., 10-11.

<sup>98</sup> Ibid., 6.

<sup>99</sup> Ibid., 7.

of the organic planned economy consisting of bureaucrat “economic technicians,” capitalist “industrial technicians,” and workers who were increasingly organized by technologized “life functions” and the organic, machine-like national life organization.<sup>100</sup> They were stuck in an old mindset of autocratically exercising power from above, instead of seeking to proliferate it through the people in the form of an organic life system.

In a 1941 speech to engineers at the Japan Artisans Center entitled, “Lecture on the New Economic Order,” Mōri says that through the war, the “Japanese nation” (*minzoku*) was transforming itself from “citizens” (*shimin*) to “national subjects” (*kokumin*); however, they required a further revolution in their “life consciousness” (*seikatsu ishiki*) in order for this to be fully realized.<sup>101</sup> An essential aspect of the “New Economic Order” was the formation of a “national defense consciousness” throughout all aspects of life.<sup>102</sup> This consciousness was not just a short-term mobilization to win the war, but the reigning in of liberalism and the creation of a modern, independent, and self-sufficient economy in East Asia. The people’s adoption of a “national defense consciousness” was an abandonment of simple individualism and the attainment of a higher individual freedom within the national destiny. As an individualistic “citizen,” every limit on freedom or deprivation is felt as restriction, says Mōri; however, as “national subjects” who feel the national destiny in every aspect of their lives, individuals freely undergo difficulties for

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<sup>100</sup> Kamakura, “Handō o kokufuku suru seiji: Kigen nisen roppyaku hyaku-nen sengen” (Politics to Conquer Reaction: The Declaration of the Year 2800), *Kaibō jidai*, (Jan. 1940):10.

<sup>101</sup> Mōri, “Keizai shintaisei kōza,” (Lecture on the New Economic Order), *Mōri Hideoto monjo*, Document 221, pages unnumbered.

<sup>102</sup> Ibid. He distinguishes between a more short-term “wartime economy” and a more permanent “national defense economy.” This maps on to his earlier distinction between a “requisition economy” and a “planned economy” in the colonies.

the higher destiny.<sup>103</sup> Freedom is discovered within “tremors, vibrations, and strife,” Mōri says.<sup>104</sup> He urges the engineers to abandon the atomistic, mechanistic worldview of classical science in favor of the more total, integrated worldview of quantum mechanics at the basis of recent advancements in technology. They must also not just intellectually understand “national destiny” but actively feel it and become “builders within the storm.”<sup>105</sup> For example, an architect does not just plan and build quality dormitories for workers, but makes them convertible into integrated barracks as well.<sup>106</sup> As national subjects, engineers must fulfill both the particular needs of the workers *and* the universal needs of the nation.

In sum technology for Mōri takes on the meaning of a total transformation in consciousness on the part of all the people. Bureaucrats must abandon their tendency to legislate and monitor everything in minute detail, and boldly create “economic technologies” that take into account both national objectives and the particular conditions of the people. Engineers must abandon their narrow, specialized worldview (symbolized by “atomism”) and adopt an integrated one (symbolized by quantum mechanics) whereby their technical work fulfills both particular and universal goals at the same time. Finally capitalists and workers must abandon their individualistic ways and fully take on their “life functions” within the technologized economy. The “national life organization” would be the collectivized expression of these “life functions” and operate as an organic technological system for producing the New Order in East Asia. In the New Order, technology is associated with the

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<sup>103</sup> Ibid.

<sup>104</sup> Ibid. He discusses how parents in Nazi Germany made their young children stand in the train so that they get used to hardship from a very early age.

<sup>105</sup> Ibid.

<sup>106</sup> Ibid.

multiple life energies of the nation, or more specifically, the national qualities of abundant creativity, efficient organization, and integrated, holistic thinking. In short for Mōri and other technocrats, technology represents a type of rational, plural, and expressive “political power” of the nation or people.

### ***Pan-Asian Nationalism***

For Mōri and the reform bureaucrats, the national life organization that would construct the national economy was inseparable from the construction of a new political order in East Asia. Along with the encouragement of more flexible economic technologies to co-opt and re-direct Chinese resistance, Mōri argues for the necessity of grounding these in a new political order as well that would unify the various peoples of East Asia into an “East Asian nation” (*Tōa minzoku*). He criticizes those who saw Chinese nationalism as a relatively recent response to warlordism and did not recognize its long history among the people dating back to the overthrow of the Qing dynasty and revolts against European powers, as well as those who thought that Chinese peasants were isolated from politics and had no national or ethnic consciousness.<sup>107</sup> If the Japanese continue to narrowly reject Chinese nationalism, “history would teach us a lesson,” Mōri warned.<sup>108</sup> Instead the Japanese people should “affirm the fact that the ethnic pursuit of the Chinese nation to realize the national unity of China is the motivating force of their political power,” writes Mōri.<sup>109</sup>

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<sup>107</sup> Mōri, “Tōa keizai no kensetsu ni tsuite, dai ikkō,” page unnumbered. Kamakura, “Chūgoku no ‘kōsen kenkoku’ o hihan su” (A Criticism of China’s “Building the Nation through Resistance”), *Kaibō jidai*, (Feb. 1939):7.

<sup>108</sup> Mōri, “Tōa keizai no kensetsu ni tsuite, dai ikkō,” page unnumbered.

<sup>109</sup> Kamakura, “Chūgoku no ‘kōsen kenkoku’ o hihan su,” 7. Mōri thoroughly studied the “platforms and organizations of the Chinese democratic parties” as a member of Kamei’s research group. See Furukawa, “Kakushin kanryō no shisō to kōdō,” 19.

However, Japanese and Chinese nationalism should not remain at the level of “simple ethnic emotion” but should be mutually developed under the rubric of a higher multi-ethnic East Asian ethnic nationalism that would cooperatively build the non-capitalist, self-sufficient order in East Asia.<sup>110</sup> In fact Mōri suggests that such East Asian nationalism is an essential part of the Japanese nation, which he calls a “plural nation.”<sup>111</sup> This multi-ethnic nationalism would “fertilize” the Chinese national instinct and therefore “make possible the greater and faster construction of the East Asian nation and thereby, the “Symbiotic Body of East Asia.”<sup>112</sup> East Asian nationalism therefore formed the political ideology or “will” for the “liberation from the international capitalist and communist orders in China,” and the establishment of a “total life order” in Japan, Manchuria, and China along the lines outlined above.<sup>113</sup>

Mōri saw world history as moving away from the particular nationalisms institutionalized by the Versailles treaty system and towards the formation of large, multi-ethnic nations that incorporate “small and weaker” ones.<sup>114</sup> The five great plural nations—the Japanese, Slavs, Germans, Chinese, and Indians—would hereby shape the course of world history, according to Mōri.<sup>115</sup> Plurality in terms of ethnicity, culture, lifestyles, and economic activity is not a sign of weakness but rather, of strength and superiority, he says in a 1939

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<sup>110</sup> Kamakura, “Tōa ittai’ toshite no seijiryoku,” 10.

<sup>111</sup> Mōri, “Dai tōa bunka no igi” (The Meaning of East Asian Culture), *Mōri Hideoto monjo*, Document 222, page unnumbered.

<sup>112</sup> Kamakura, “Tōa kyōseitai kensetsu no sho jōken” (The Various Conditions for the Construction of the Symbiotic Body of East Asia), *Kaibō jidai*, (Oct. 1938):29.

<sup>113</sup> Ibid. Mōri’s East Asian nationalism fits what Naoki Sakai calls, “imperial nationalism.” For more on “imperial nationalism” and its continuity with recent formulations of U.S. imperialism and the discipline of Asian Studies, see Sakai, “Subject and Substratum: On Japanese Imperial Nationalism,” *Cultural Studies* 14, no. 3/4 (2000):462-530.

<sup>114</sup> Mōri, “Dai tōa bunka no igi,” page unnumbered.

<sup>115</sup> Ibid.

speech to the Social Policy Institute.<sup>116</sup> This affirmation of multiplicity and the need for bureaucrats to understand and synthesize multiplicity instead of homogenizing it is a recurring theme throughout Mōri's totalitarian philosophy. As the leading "plural nation" in the world, the Japanese nation would affirm, synthesize and revitalize the weaker Chinese nation, thereby transforming both into a higher East Asian nation, as we saw above. In the process the Chinese and Japanese peoples would change themselves from "private citizens" of a liberal capitalist order into "national subjects" within a corporatist "total life order." This new East Asian nation would resolve the persistent questions of ethnic minorities and class conflict, which the nineteenth century world gave birth to and the twentieth century did not resolve—this was their "world-historical task," according to Mōri.<sup>117</sup> Thus for him the "political power" of the East Asian nation (*minzoku*) was not to be expressed as homogenization of the lifestyles and economies of the various colonial peoples, but rather as a productive synthesis and expression of their multiple energies and skills.

### ***Production Technology and the Creative Energies of the Japanese Nation***

In the same way that Mōri grounds economic technology in the different social, economic, and political practices of the people, he also roots production technology in the "energies of the Japanese nation." With the construction of the national economy and New Order in East Asia, "technology is liberated

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<sup>116</sup> Mōri, "Tōa keizai no kensetsu ni tsuite, dai ni kō," (On Constructing the East Asian Economy, Second Lecture), *Mōri Hideoto monjo*, Document 219, page unnumbered.

<sup>117</sup> Kamakura, "Tōa ni okeru bōkyō no igi" (The Meaning of Defending Against Communism in East Asia), *Kaibō jidai*, (June 1939):7. Germany was also charged with this "world-historical task," according to Mōri.

from a materialist existence as merely an element of production and is directly linked to the energy of the nation pursuing their development,” Mōri writes.<sup>118</sup> Under capitalism technology is subordinate to the principle of profit and monopolized by individual business rather than shared for the benefit of society. In fact businesses have little interest in developing technology if there is no profit incentive, and they often buy up patents to prevent competition.<sup>119</sup> Technology therefore is merely the material means for profit under capitalism. For Mōri, however, the “new industrial revolution” of the early twentieth century, which made the development of Japan’s heavy chemical industries—particularly the development of synthetic energies and metals—possible, changed the very meaning of technology. With this revolution technology was no longer completely reliant on the supply and demand of natural resources but could directly manufacture them. Thus:

[T]echnology and chemistry, which made these synthetic raw materials possible, immediately were something spiritual that formed the basis for the liberation and welfare of the nation as a whole—not material—elements, and it was possible for technology to become a form of the spirit of the nation, or in other words, culture, rather than civilization.<sup>120</sup>

Technology was not merely the instrumental means of labor but the very expression of national creativity and independence.

“Up to now technology was not thought of as cultural but simply as a method of commodity production. Moreover, culture itself was the culture of the individual. That is to say, the individual was the locus of culture, and

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<sup>118</sup> Kamakura, “Gijutsu no kaihō to seiji” (The Liberation and Politics of Technology), *Kaibō jidai*, (Sept. 1939):4

<sup>119</sup> *Ibid.*, 6-7.

<sup>120</sup> *Ibid.*, 6. Brackets mine.

cultural production was merely individual production,” Mōri writes.<sup>121</sup> Presently, however, the nation and the state have become “life-like,” and “cultural and spiritual meanings have become essential for the establishment of the nation and the state,” he adds.<sup>122</sup> Thus individual cultural production is infused with national culture, and culture is then elevated to a higher plane. Technology is also transformed from “individual technology” into the “technology of the national community”—the human creativity at the root of technology is given a “deeper creative pool” (i.e. the nation) to draw from.<sup>123</sup> In short the creativity inherent in technology is only heightened and intensified when tied to the creative energies of national culture.

Mōri sums up the six ways that production technology has begun to escape the “materialist” and “individualist” meanings of capitalism, and taken on more subjective and spiritual significance.<sup>124</sup> First, the creativity of the technician and technology is becoming the creativity of the community. Second, the creativity of individual technologies are mutually developing and sustaining each other, or in other words, are integrating more and more with the needs of the totality. Third, since the individual knowledges that construct technology are unified with national goals, technology has taken on more of a “planned character.” Fourth, the “dynamic creativity” of the nation at the foundation of technology is flourishing. Fifth, the various movements of technology are being made “uniform” by taking on a larger spiritual meaning. Finally, by being grounded in all of the above qualities of national creativity, organization, synergy, planning, uniformity, and spirituality, technology has

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<sup>121</sup> Ibid., 7.

<sup>122</sup> Ibid., 7.

<sup>123</sup> Ibid., 7.

<sup>124</sup> Ibid., 8.

adapted a more concrete character—reality and imagination have become “harmonized.” The abstract law of profit or “arbitrary” individual creativity would no longer hinder the development of technology. In sum production technology begins to take on all sorts of ethical meanings and subjective qualities for Mōri: “national creativity,” “integration and planning,” coordination, creative momentum, “uniformity,” and “harmony.” All of these are ways that production technology escapes the narrow confines of the factory and enters the realm of national subjectivity and life.

### ***The Transformation of Spatial Consciousness***

The development of science and technology is also related to a necessary revolution in the “spatial consciousness of the Japanese nation,” Mōri says in a speech to university students.<sup>125</sup> While the spatial consciousness of liberal capitalism viewed the world abstractly and universally as a flat surface of equivalent economic relations, the “spatial consciousness of the Japanese nation” should grasp Japanese colonial space concretely, creatively, and synthetically as a space for living (*seikatsu kūkan*).<sup>126</sup> The understanding of space more concretely as a national “space for living” or in terms of the local conditions of a particular space leads to the development of new scientific principles and technologies for the “improvement of space” (*kūkan o jūjitsu suru*), according to Mōri.<sup>127</sup> These developments in turn

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<sup>125</sup> Mōri is recounting this speech in a dialogue with Miki Kiyoshi. Mōri and Miki, “Ashita no kagaku nihon no sōzō,” 186.

<sup>126</sup> Ibid., 186-187. Mōri, like other right-wing bureaucrats and intellectuals at the time, was influenced by the Nazi geographer, Karl Haushofer, who coined the term, “space for living” (*lebensraum*). For example, see Kamakura, “Taiheiyō kūkan no seikaku kakumei—Sekai seiji to tōa kyōeiken no hensei” (The Revolution in the Character of the Pacific Space: World Politics and the Formation of the East Asian Co-prosperity Sphere), *Chūō kōron*, (Nov. 1940):36.

<sup>127</sup> Ibid., 187.

elevate the “cultural power or national energies” of the Japanese peoples.<sup>128</sup> “Up to now, science and technology was merely subordinate to the economy...However, today science and technology must be determined as the expression and creation of national energies for the improvement of national spaces for living,” Mōri writes.<sup>129</sup> Under capitalism, science and technology was tied to a conception of the economy as an abstract space of free competition—they were merely the objective means of competition. By being tied to a national conception of space as “space for living,” however, science and technology comes to life as a creative force of developing the “New Order in East Asia.”

Mōri further ties his notion of “space for living” or “self-aware space” to the geopolitics of the Japanese empire and the construction of the Greater East Asia Co-Prosperity Sphere.<sup>130</sup> The “Pacific Space” was originally a “threatening space” for Tokugawa Japan and the space of British free trade and liberal capitalism, according to Mōri.<sup>131</sup> With the entry of Japan into the liberal capitalist order and especially the acquisition of various Pacific Islands such as the Carolines, the Marianas, and the Marshalls, Japan organized its own Pacific “space for living” by “integrating” the “lived spaces” of the various Pacific nations.<sup>132</sup> This space continued to be liberal capitalist, and it laid the foundations of the Japanese economy. The “expansion of Japan’s space for living” into Manchuria and the China, however, signified a change in spatial consciousness from a space of market relations to a space of concrete

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<sup>128</sup> Ibid., 187.

<sup>129</sup> Ibid., 187.

<sup>130</sup> Kamakura, “Taiheiyō kûkan no seikaku kakumei,” 35.

<sup>131</sup> Ibid., 36.

<sup>132</sup> Ibid., 34-36.

planning and self-sufficiency as detailed above.<sup>133</sup> Mōri calls this developing “continental character” of space, a “revolution in the character of Pacific space.”<sup>134</sup> For him the entry of the “Manchurian empire” into “Pacific space” signifies the incorporation of liberal capitalism into the creation of a self-sufficient, planned economy in East Asia.<sup>135</sup>

In the larger scheme of things, the “revolution of the character of Pacific space” meant the formation of a “Greater East Asian Space,” according to Mōri.<sup>136</sup> Japan would transform the “centripetal forces” of maritime liberal capitalism and continental planned economy into “centrifugal forces” for a New Order incorporating both spatial conceptions, he writes.<sup>137</sup> Like Japan, for a long time China was never allowed to develop her own “consciousness toward space” due to the invasion of powerful, competing “cultural spaces.”<sup>138</sup> When the Chinese began to develop their own nationalist conception of space, however, it was divided between a liberal democratic view (“maritime conception”) and a nationalist communist view (“continental conception”), according to Mōri.<sup>139</sup> Japan’s higher mission was to integrate the “maritime space of the Pacific” and the “continental space of East Asia” into a dynamic, self-sufficient, and independent “Greater East Asian Co-Prosperity Sphere.”<sup>140</sup> Thus with the expansion of the Japanese empire to include different spatial conceptions, an “East Asian” conception of space would ultimately unify the capitalist and planned economy conceptions of developing and organizing

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<sup>133</sup> Ibid., 37, 38.

<sup>134</sup> Ibid., 38.

<sup>135</sup> As we saw before, Mōri never wants to totally eliminate capitalist competition, profit, and innovation. Ibid., 38.

<sup>136</sup> Ibid., 42.

<sup>137</sup> Ibid., 42.

<sup>138</sup> Ibid., 39.

<sup>139</sup> Ibid., 39.

<sup>140</sup> Ibid., 42.

space. In a special issue of *Keizai Jôhô* [Information on the Economy] on technology, Môri writes that the “technologies of the nation” (*kokumin no gijutsu*) and the “power of science” would unify these two conceptions of economic space with their very different economic and production technologies.<sup>141</sup> Moreover the Japanese technocrats, businessmen, engineers, and skilled workers who were managing the new continental economy needed to have a “technological conscience” to develop the expensive natural resources of Manchuria and China into technologically advanced, high-quality industrial products for the world market.<sup>142</sup> Thus the entire Japanese empire was viewed as a creative space for Japanese technocrats to develop new economic and production technologies for the New Order in East Asia.

### ***Society through Quantum Theory***

Môri even employs quantum theory, which helped engender the heavy chemical industrial revolution, as a way to view society. For him society could no longer be viewed atomistically in terms of its individual members or units. Quantum theory, however, sees things in terms of a higher, complicated synthesis. “This is similar to totalitarianism and the planned economy, which is not a logical unification into something uniform and homogenous. It is the synthesis into a higher standpoint while affirming the multiple as it is,” he says in a dialogue with the philosopher, Miki Kiyoshi.<sup>143</sup> He extends this metaphor of quantum theory to the “multiple ethnicities of the Greater East Asian Co-Prosperity Sphere” and its “extremely plural life functions.” These “irrational,

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<sup>141</sup> Môri, “Gijutsu to kokumin seikatsu” (Technology and National Life), *Keizai Jôhô*, (March 1940):91.

<sup>142</sup> *Ibid.*, 90.

<sup>143</sup> Môri and Miki, “Ashita no kagaku nihon no sôzô,” 199.

plural existences” would be “affirmed as they are” and “synthesized into a higher standpoint.”<sup>144</sup> His view of society through the lens of quantum theory is significant because it attributes a certain degree of uncertainty, multiplicity, change, and movement to social forces. Out of this framework, he formulates social, political, and economic technologies that would most effectively produce and manage these indeterminate social forces. Elsewhere he even argues for the “vocationalization” of the new technologies and products of quantum theory into a “technological system” whereby members of the national life organization would take on various vocations in the heavy industrial, high precision, technologically advanced economy.<sup>145</sup> Thus for Mōri, quantum theory is not simply an abstract social framework but something that actually generates technologies and industries that form a social system of highly skilled, imaginative, and cooperative workers mobilized for national goals.

#### **IV. CONCLUSION: TECHNOLOGY AND POWER**

In conclusion, Mōri’s broad theory of technology signifies a historical shift in the discourse of power in modern societies such as Japan. In the reform bureaucrats’ conceptions and policies, power does not merely structure social life from above through institutions such as the state but infuses bodies, consciousnesses, and the totality of social relations in all their multiplicity; therefore, power is fundamentally restrictive *and* productive. Economic technologies seek to employ local knowledge and socio-economic relations in

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<sup>144</sup> Ibid., 199.

<sup>145</sup> Kamakura, “Kokumin seikatsu soshiki no kiten,” 10.

order to fully mobilize the creative powers of the colonial peoples. They also try to operate at the level of daily life by proposing a plural “national life organization” based on specific, high technology vocations or in the colonies by attempting to incorporate Chinese national feeling. Production technologies are not dead instruments for profit but take on spiritual, cultural meaning as helping to build an advanced East Asian society that would overcome the contradictions of capitalism and nationalism. Thus these discursive “technologies of fascism” were not simply violent, irrational and repressive but attempted to work at the level of mobilizing the everyday imaginations and subjectivities of different peoples. In this sense they bear much in common with the efforts of post-war Asian technocrats to mobilize their diverse societies for high-speed growth as well as recent efforts by Japan to create an Asian economic community. In all of these cases creativity, equality, and independence were encouraged to the extent that they were complicit with their goals of building an empire, strong nation-state, or free-market economic block. In wartime Japan, technology served as a powerful discursive trope to organize the multiplicity of subjects in Japan and East Asia into an organic “national life system” that would eliminate political antagonism and therefore, any chance of democratically transforming social relations of subordination.

## CHAPTER TWO

### SUBJECTIVE TECHNOLOGIES OF MOBILIZATION: AIKAWA HARUKI'S WARTIME THEORY OF TECHNOLOGY

#### I. INTRODUCTION

##### *Modernity through Technology*

Throughout the 1930s and 1940s, debates on “technology” (*gijutsu*) raged across the political spectrum, particularly among bureaucrats and intellectuals. On the one hand, many right-wing ideologues and politicians saw technology as something that was steadily eroding Japan’s spiritual and creative vigor, as well as traditional emperor-centered values of community and agrarianism.<sup>1</sup> On the other hand, many engineers, scientists, bureaucrats, and businessmen viewed technology as the solution to all of the social ills of capitalism, and they campaigned vigorously for the promotion of science and technology in all areas of life as well as the introduction of rational techniques of management and administration throughout society.<sup>2</sup> Most, however, developed theories that were somewhere between these two extremes of romanticism and technocracy, subjectivism and objectivism, or simply combined the two. Along with “culture” (*bunka*) and “nation”

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<sup>1</sup> For example, the Cabinet Information Bureau published a pamphlet in 1942 entitled, “The Thought War and Science” (*Shisōsen to kagaku*), which cautions people on how “foreign” science weakens “our mental temperament and physical constitution,” and causes all sorts of “addiction.” See Kawahara, 256-257.

<sup>2</sup> For example, Miyamoto Takenosuke, the leader of the Japan Technology Association, adopted the slogan of “guiding public opinion based on technology” and “technological patriotism” for the Association. Their prospectus argued that Japanese culture was in fact based on technology. See Pauer, “Japan’s Technical Mobilization,” 42 and Mimura, “Technocratic Visions of Empire: Technology Bureaucrats and the ‘New Order for Science-Technology’” in *The Japanese Empire in East Asia and its Postwar Legacy*, ed. Harald Fuess (Munich: Iudicium-Verlag, 1998), 102-104.

(*minzoku*), “technology” was an important lens through which Japanese bureaucrats and intellectuals articulated Japan’s modernity during a period of increasing hostilities with China, intensified colonization of East and South East Asia, and full-scale war with the U.S. (1931-1945). An important characteristic of this discourse was that for many, technology was not just accepted as the “value-neutral” machines and productive mechanisms of society but rather, the very nature of technology was questioned and re-defined. In fact, technology was equated with the production of all of society, not only of its laws, institutions, ideologies, social organization, and economic structure but of its citizens and subjects as well. As Victor Koschmann points out, technology was interpreted more and more “in performative or existential terms, as signifying certain ways of thinking, acting, or being, or even as representing certain qualitative virtues, such as rationality, creativity, or an ethic of responsibility.”<sup>3</sup>

While the growing demand for increasing the production of war materials such as airplanes, engines, steel, and oil motivated much of the debate over technology, a lot more was at stake than just improving wartime production and strengthening the economy.<sup>4</sup> Since technology was often defined in a wider sense of an entire society’s subjective and objective productive processes, it constituted the concrete architecture and makeup of a society’s institutions, economic structure, political policies and culture, for example. More importantly, various social, cultural, political and economic “technologies” determined the course a society was taking and how it was being transformed. Thus economists, sociologists, philosophers, bureaucrats,

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<sup>3</sup> Koschmann, 1.

<sup>4</sup> By the end of the war, however, production became the predominant concern.

business leaders, and scientists discussed technology in terms of a more widespread transformation and mobilization of society. The enormous literature on technology in journals, newspapers, and books, and the predominance of terms such as “technological spirit,” “technological culture,” “technological science,” and “technological mobilization” in the public discourse attests to the importance of the term, “technology” and its contested nature in Japanese society.<sup>5</sup>

### ***The Debate over the Theory of Technology***

The 1920s Industrial Rationalization Movement (*Sangyô gijutsu undô*) to promote Taylorism and the introduction of rational techniques of production into the factory, as well as the efforts of Miyamoto Takenosuke’s Japan Technology Association to increase the role of engineers in social planning helped bring about a re-thinking of technology as more than just the objective means of production. However, it was in fact Japanese Marxists who sparked a major debate over the meaning of technology among intellectuals during the early 1930s. Between 1933 and 1935, the “Debate over the Theory of Technology” (*Gijutsuron ronsô*) raged in the pages of *Studies on Materialism* (*Yuibutsuron kenkyû*), a journal of Marxist intellectuals from different fields dedicated to developing historical materialism as the proper way to understand society and social transformation.<sup>6</sup> Among the people who emerged from this debate, which included famous Marxists such as Nagata Hiroshi, Tosaka Jun,

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<sup>5</sup> The comprehensive bibliography and commentary in Aikawa Haruki’s *Gendai Gijutsuron* [Modern Theory of Technology] gives a large sample of the range of works on technology in each discipline. See Aikawa, *Gendai gijutsuron* [Modern Theory of Technology] (Tokyo: Mikasa shobô, 1940), 287-326.

<sup>6</sup> For general overviews, see Nakamura Seiji, *Gijutsuron ronsôshi jô* [History of the Debate over the Theory of Technology, vol. 1] (Tokyo: Aoki shoten, 1975) and Shima Akira, *Gijutsuron ronsô* [The Debate over the Theory of Technology] (Kyoto: Mineruba shobô, 1977).

and Oka Kunio, was Aikawa Haruki, a leading “Lectures Faction” (*Kôza-ha*) Marxist economist who later became the most prominent theorist of technology in wartime Japan.<sup>7</sup>

What sparked the debate was the Comintern leader, Nikolai Bukharin’s overly mechanistic and positivistic equating of technology with the forces of production without giving prominence to proletarian subjectivity and labor power. Technology was simply linked to the economic stage of the material forces of production (i.e. technology), which measured a society’s progress toward socialism—revolution would somehow naturally arrive with the gradual development of the forces of production within capitalism, according to Bukharin.<sup>8</sup> *Kôza-ha* Marxists within the “Research Group on Materialism” such as Aikawa took exception with such a positivistic “one size fits all” stage theory that did not take Japan’s particular conditions into consideration, and especially with Bukharin’s de-emphasis of worker subjectivity and proletarian struggle. While I shall go into a little more detail on the nature of the debate later on, in sum, it centered on delineating and establishing the roles of subjectivity and technology in social transformation. Could “subjectivity” and “technology” even be clearly separated from each other in today’s heavy industrial society? What if modern technology incorporated more subjective processes such as cultural production (e.g. film, mass media), administrative processes (e.g. techniques of management and organization), and legislative

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<sup>7</sup> The “Lectures Faction” of Japanese Marxism believed in the feudal, pre-modern nature of Japanese capitalism, and the necessity of a bourgeois revolution before a socialist one. For an introduction to *Kôza-ha* Marxism, see Mitsunobu Sugiyama, “The World Conception of Japanese Social Science: The *Kôza* Faction, the Ôtsuka School, and the Uno School of Economics” in *New Asian Marxisms*, ed. Tani Barlow (Durham: Duke University Press, 2002), 205-246.

<sup>8</sup> For his productive forces argument, see Nikolai Bukharin, *Historical Materialism: A System of Sociology* (New York: International Publishers, 1925).

production (e.g. policy formation), for example? Aikawa put forth the generally accepted definition of technology in this debate as the “complex of objective means of social labor, or in short, the system of the means of labor,” thereby sticking to an objective definition of technology but combining it in a “dialectical unity” with praxis or labor power—in the end, it was the “fire of labor” that helped realize and complete technology’s transformational power, and that would ultimately bring about socialism.<sup>9</sup> While Aikawa still stuck to a very orthodox definition of technology as strictly the objective means of labor in production, he developed the basis for his more encompassing and comprehensive theories of technology during the war by grounding technology in the human subject and concrete human activity. In doing so, he was able to later develop a theory of technology as not only productive machinery and tools but as the numerous processes and techniques of producing and therefore governing all aspects of life and society.

### ***Aikawa Haruki: Technology as Creative Praxis and Mobilization***

This chapter will analyze the wartime work of the apostate (*tenkō*) Marxist, Aikawa Haruki, the most prolific writer on technology during the wartime period and a self-proclaimed “technology critic.”<sup>10</sup> His most famous

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<sup>9</sup> More on this later. Aikawa, *Gijutsuron* [Theory of Technology] (Tokyo: Mikasa shobō, 1935), 8.

<sup>10</sup> *Tenkō* can be loosely defined as ideological apostasy. It arose in the 1930s when the state was harassing, intimidating, and arresting hundreds of leftists. The 1933 public announcement in prison by the Japanese Communist Party leaders, Sano Manabu and Nabeyama Sadachika, of their break with the party and commitment to the state sent shockwaves throughout the political community. Afterwards, hundreds of leftists followed suit. *Tenkō* eventually became the primary tool of the state to deal with the left, creating different types of *tenkōsha* (apostates). Thousands of leftists, particularly intellectuals, underwent *tenkō*. For more historical background, see Patricia Steinhoff, *Tenkō: Ideology and Societal Integration in Prewar Japan* (New York, Garland, 1991) and Shunsuke Tsurumi, *An Intellectual History of Modern Japan, 1931-1945* (London: KPI, 1986).

work, *Modern Theory of Technology* (*Gendai gijutsuron*, 1940), was very well received, and he went on to publish works such as *Introduction to a Theory of Technology* (*Gijutsuron nyûmon*, 1942), *Theory and Policy of Technology* (*Gijutsu no riron to seisaku*, 1942), *Industrial Technology* (*Sangyô gijutsu*, 1942), *Technology and Skill Management: The Shift Towards Mass Production* (*Gijutsu oyobi ginô kanri: taryô seisan he no tenkan*, 1944), and *Technology and the Resources of South-East Asia* (*Tôna ajia no gijutsu to shigen*, 1944) in the span of two years. He also wrote many articles in policy journals such as *Technology Review* (*Gijutsu hyôron*), *National Industrial Policy* (*Kôgyô kokusaku*), and *Scientific Industry* (*Kagakushugi kôgyô*). His writings were also extensive in the cultural realm. He published a work on the technological aesthetics of the “culture film” (*bunka eiga*) or documentary entitled, *Theory of the Culture Film* (*Bunka eigaron*, 1944) and he even helped in the production of one on the workings of a wartime electric generator plant entitled, *The Present Battle* (*Konnichi no tatakai*, 1942).<sup>11</sup> He wrote periodically for the film journal, *Culture Film* (*Bunka eiga*), published by the film company Geijutsu eigasha (GES), whose members were primarily former or closet Marxists, and he actively participated in their roundtables. In addition, he wrote a “Comments on Culture” column for *Technology Review* and even wrote theater reviews for *Theater* (*Teaturo*) and the newspaper, *Tokyo Imperial University News* (*Teidai shimbun*). Thus his work spanned the whole range of economic, political, social, and cultural technology.

I analyze Aikawa, not only because he was the most prominent theorist of technology, but also because his theories represent the discursive

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<sup>11</sup> The “culture film” was the term used for state-sponsored propaganda documentaries to mobilize and “enlighten” the people.

background to state policy and ideology, as was most clearly exhibited in the “Outline Plan for the Founding of a New Order for Science and Technology” in East Asia, which established a Technology Agency (*Gijitsuin*), and to the control economy policies of reform bureaucrats (*kakushin kanryô*) such as Môri Hideoto, Okumura Kiwao, and Kishi Nobosuke.<sup>12</sup> Bureaucrats and intellectuals such as Aikawa pushed for the establishment of a technologically advanced, rationally planned, and fully mobilized “New Order in East Asia” that would supposedly eliminate social inequality, exploitation, and conflict. Every subject had to do their part in life to “construct” (*kensetsu*) this new order, and new policies, institutions, and ideas were necessary for its achievement.<sup>13</sup> “Technology” in fact became a way to concretely describe and frame the new processes of cultural, economic, and social production (or “technologies”) that were required for different subjects to actively and spontaneously create this new order.<sup>14</sup> Aikawa was the most prominent intellectual who framed society

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<sup>12</sup> For more on these figures, see my previous chapter on Môri Hideoto. The New Order for Science and Technology centralized the technology bureaucracy, set directives for technological research, and promoted the spread of science and technology in everyday life among other things. See Pauer, “Japan’s Technical Mobilization,” 43-53. For more on the New Order, see Minoru Sawai, “Taiheiyo sensô ki kagaku gijutsu seisaku no hito koma: kagaku gijutsu shingikai no setchi to sono katsudô,” [A Page from Science-Technology Policy during the Pacific War: The Establishment of the Science-Technology Deliberation Committee and Their Activities], *Osaka daigaku keizaigaku* [Osaka University Economics] 4, no 2, (Oct 1994):1-23, Sawai, “Kagaku gijutsu shintaisei kôsô no tenkai to gijitsuin no tanjô” [The Development of the Conception of the New Order for Science and Technology and the Birth of the Technology Board], *Osaka daigaku keizaigaku* 41, no. 3., (Dec 1994):366-395, and Shôichi Ôyodo, “Kagaku gijutsu shintaisei kakuritsu yôkô kara gijitsuin setchi he” [From the Outline of the Establishment of the New Order for Science and Technology to the Creation of the Technology Board], *Keiei ronshû* [Collected Essays on Management] 51, no. 3, (March 2004):71-89.

<sup>13</sup> “Construction” was a ubiquitous word in the public discourse. For example, “state construction” (*kokka kensetsu*) and “construction of East Asia” (*dai tôa kensetsu*). Thus the language of technology permeated the public sphere.

<sup>14</sup> For example, Aikawa’s work, *The Technology and Resources of Southeast Asia*, proposes policies to develop the natural resources of Southeast Asia so that their peoples may eventually establish an independent heavy industrial economy like Japan’s, and finally overthrow European imperialism. This would usher in the creation of the “East Asian Cultural

in terms of developing concrete technologies of societal production, and he even pushed for a new, independent discipline to study these technologies: *Technologie* or “technology studies.”<sup>15</sup> His “modern theory of technology,” which ontologically grounds technology in praxis and everyday human activity, formed the broader discursive background to many of the concrete technologies then being formulated to bring about the New Order. Aikawa’s re-signification of technology as praxis made the people the focus of social transformation, not some impersonal force such as “technological progress” or “the objective conditions of the means of production.” Yet in making the people the agent of social change, Aikawa actually helped create and maintain new forms of mobilization and control that worked at a more subjective and practical level.

Thus in this chapter I first examine Aikawa’s broad theory of technology as presented in his seminal work, *Modern Theory of Technology*. I then detail how he envisions his theory at work in various realms such as the economy, government policy, and social organization by looking at some of his other, more specific wartime books and articles on the state’s “Outline for a New Order of Science in Technology” adopted in 1941. My argument is that Aikawa’s works were instrumental in highlighting the practical, everyday, creative nature of technology, however, in a way that furthered Japan’s imperial aims and control over its people. As in my previous chapter on Mōri Hideoto, I seek to demonstrate how Japanese fascist ideology was more than simply irrational, violent, and repressive but worked in rational, creative, and incorporative ways as well, which were more insidious. In fact, as I will show,

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Sphere,” according to Aikawa. Aikawa, *Tōna ajia no shigen to gijutsu* [The Technology and Resources of Southeast Asia] (Tokyo: Mikasa shobō, 1944), 8.

<sup>15</sup> See Aikawa, “Gendai gijutsuron,” 203-235.

Aikawa's appropriation and incorporation of a Marxist theory of praxis and mass proletarian revolution, which sought to understand the primary forces behind social transformation, made his all-encompassing theories of technology all the more problematic. Rather than trying to understand and incite the multiple forces of radical democratic or socialist critique and change, Aikawa in fact helped incorporate and contain them through the promise of a modern, technologically organized utopia. Thus in this chapter I would like to give an example of how fascism appropriates leftist thought and popular critical energy in order to perpetuate itself.

### ***Technology as Power: Re-conceptualizing Japanese Fascism***

By examining Aikawa's influential theories of technology and technocracy during the wartime period, I seek to highlight an important form of social power that aimed at not only controlling but also producing all aspects of life and society. Instead of solely focusing on the brute violence and fanaticism of Japanese fascism, it is necessary to also look at the productive aspects or technologies of fascist power, which attempt to work at the subjective, creative level. Technology in Japanese modern history has always been seen as a progressive force—the wartime being seen as a skewed employment of advanced technology later to be rectified in Japan's post-war economic miracle.<sup>16</sup> I will show, however, that for many of the leading bureaucrats and intellectuals, technology meant much more than advanced machinery and infrastructure, but included technologies of subjective control and mobilization towards organizing an organic, rapidly developing social system. Many of these technologies, along with the leaders who advocated

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<sup>16</sup> Morris-Suzuki, "The Technological Transformation of Japan," 143.

them, were to continue on into post-war Japanese developmentalism. Thus it is important to shed light on the wartime origins of the supposedly progressive forces that often serve to increase state control and mobilization so that they may then be opened up to democratic critique and change.

## II. HISTORICAL PROFILE<sup>17</sup>

### *Aikawa's Early Encounters with Marxism*

Aikawa, whose real name was Yanami Hisao, grew up in rural towns in Niigata and Toyama Prefectures during the period known as “Taishô Democracy” (1912-1926). The growth of more assertive tenant farmers associations, labor unions, and mass political parties; the spread of socialism and communism as an intellectual and cultural force; the frequent outbreak of economic crises; and a rise in state repression were some of the characteristics of this era. Northern Japan did not escape the social turmoil of Taishô. Aikawa's radical activity began quite early while he was a student in the literary course of the elite Fourth Higher Secondary School in Kanazawa from 1926 to 1929.<sup>18</sup> Like many elite higher schools, it was a center of political activity against militarism, imperialism and capitalism. In the spirit of the numerous leftist literary circles and associations that sprung up during the Taishô periods (such as the Proletarian Arts League), Aikawa helped found the Fourth Secondary School Social Sciences Research Group (*SS-ken*), which became a focal point for leftist students at the school. Aikawa was the

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<sup>17</sup> Much of the biographical information is from *Aikawa Haruki shôden* [A Short Biography of Aikawa Haruki] ed. Utsumi Kôichirô, Yamazaki Toshio, and Kobayashi Tango (Tokyo: Yanami sada, 1979).

<sup>18</sup> The famous Marxist poet-activist, Nakano Shigeharu, attended this school as well.

theoretical leader of the group. Clashes with right-wing students were fierce, and in one incident when a right-winger attacked the popular head of the literary students alumni association, Aikawa organized a large student strike. In addition he and several students published the independent literary magazine, *Hiroba* (Public Square), outside school, which became popular among students.<sup>19</sup> The school used the arrest of some of SS-ken's leaders by local police as an excuse to expel many of its other members from school, including Aikawa, who was expelled and had his graduation revoked for being the editor of *Hiroba*.<sup>20</sup>

Aikawa left for Tokyo, where he enrolled at the Waseda Academy in 1929. He soon became heavily involved in the growing Proletarian Cultural Movement. This nationwide literary and artistic movement began in the early 1920s with literary journals such as *The Sower* (*Tane maku hito*) and *Literary Battlefield* (*Bungei sensen*), and it sought to engender a proletarian cultural renaissance that reflected the surge of labor struggle during the Taishō Period. Prominent participants included the novelist Kobayashi Takiji,<sup>21</sup> the poet Nakano Shigeharu,<sup>22</sup> and the playwright Murayama Tomoyoshi.<sup>23</sup> The

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<sup>19</sup> According to Aikawa's bio, SS-ken had the active support of eighty percent of the student body. Utsumi, et. al., 8.

<sup>20</sup> For more on the student movement in Toyama, see *Kyūsei Toyama kôtō gakkō shisō bunka undōshi* [History of the Thought Culture Movement at Toyama Higher Secondary Schools], ed. Kyūsei Toyama kôtō gakkō shisō bunka undōshi iinkai (Tokyo: Shinkō shuppansha, 1983).

<sup>21</sup> Kobayashi was one of the most popular writers of proletarian literature. His most famous work is *The Cannery Boat*, which describes working conditions on a crab trawler in Hokkaido. He was general secretary of the Japan League of Proletarian Writers. He died in a much-publicized incident of police torture in 1932.

<sup>22</sup> Nakano was one of the leading writer-poets of the proletarian cultural movement. His works dealt with militarism, the emperor system, and minorities in Japan, among other things. As one of the leaders of the Japan Federation of Proletarian Artists (NAPF), an umbrella organization for various Marxist artists federations, he insisted that art should never be subordinated and instrumentalized into politics. Arrested in the early 1930s, he renounced ties with the Japan Communist Party in 1934, but continued to write indirectly about popular struggles during the war.

movement gave birth to many organizations such as the Japan Proletarian Science Center (*Puroka*), the Japan Proletarian Film League, and the Japan Federation of Proletarian Artists (NAPF), which all served as fronts for the banned Japanese Communist Party. Cultural schools that offered everything from classes in Esperanto and German to reading groups on Marxist works sprung up around the country, and Aikawa attended classes in German and Chinese at one of them, the International Culture Center at Surugadai. Openly espousing Marxism by this point, he continued his political activity while at Waseda. In the aftermath of the April 16<sup>th</sup> Incident in 1929, a wave of arrests of suspected communists that forced the closure of the center, Aikawa was also arrested at Surugadai and subsequently expelled from Waseda. This was the beginning of many arrests for him.

After a short stint at an electrical engineering school, Aikawa returned briefly to Toyama in 1930 where he participated in the First Ramie Cotton strike, upon which he was arrested again. He returned to Tokyo, obtaining a minor researcher position at the Industrial Labor Research Association (*Sanrô*), a large research institute established by the General Labor Federation (*Sôdômei*), but later associated with the Japan Communist Party, which documented labor conditions, labor struggles, and youth problems. Continuing his self-education in Marxism and active participation in communist study groups and political activity, he was arrested again in 1931. In 1932 he joined the Association for Research in Proletarian Science (*Puro-ka*), the

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<sup>23</sup> Murayama was one of the leading avant-garde playwrights of the 1920s and 1930s. His theater group, *Gekijô no sankâ*, represented the peak of Dadaism in Japan. After spending some time in Germany, he introduced constructivism to the avant-garde theater movement, but later moved closer to Marxism, becoming a member of the Japan Proletarian Arts League in 1926 and founding the Left-wing Theater Company in Tokyo. With state repression, his theater became part of the “New Theater” (*shingeki*) movement.

largest communist think-tank dedicated to spreading Marxist thought among the people and to deepening Marxist research in all the disciplines, and he was soon selected to its Central Committee. Norô Eitarô,<sup>24</sup> Hani Gorô,<sup>25</sup> and Miki Kiyoshi<sup>26</sup> were other famous members of this association. Here Aikawa threw himself into the famous “Debates on Japanese Capitalism,” which fiercely divided Japanese Marxists until their complete repression in 1937.

### ***Aikawa as Kôza-ha Marxist***

These debates concerned the stage, structure, and characteristics of Japanese capitalism, which in turn was supposed to determine how ready Japan was for socialist revolution according to the orthodox Marxist theory of the Comintern. Begun in the late 1920s through the writings of the Marxist

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<sup>24</sup> Norô was one of the theoretical leaders of the Japanese Communist Party. He was most famous for being one of the founders of the *Kôza* Faction of Japanese Marxism, which asserted the feudal nature of Japanese capitalism. He wrote mostly on the feudal relations between landlord and tenant in the countryside. He died in 1934 when his tuberculosis worsened after an incident of police torture.

<sup>25</sup> Hani was a prominent Marxist historian and philosopher of history. He studied philosophy at Heidelberg University for three years together with other Japanese intellectuals such as Miki Kiyoshi and Ouchi Hyôei during the tumultuous 1920s. Together with Miki, he founded the Marxist journal, *Under the Flag of New Science* (*Shinkô kagaku no hata no shita ni*), which became the foundation for the large Marxist think tank, the Association for Research in Proletarian Science (*Puro-ka*). He contributed to the history section of Norô's *Lectures on the History of the Development of Japanese Capitalism*.

<sup>26</sup> Miki is associated with the Kyoto School of Philosophy. He studied neo-Kantianism under Heinrich Rickert and phenomenology under Martin Heidegger between 1922 and 1925 in Germany. Upon his return, he became devoted to Marxist thought, particularly Marx's philosophy of praxis and subjectivity. He was one of the founding members of the think tank, *Puro-ka*. However, he was soon labeled an “idealist” by other Marxist intellectuals, and eventually left the organization. After several arrests, he “converted” to the state project of imperialism in Asia, chairing the Cultural Section of Prime Minister Kono Fumimaru's policy think tank, the Shôwa Research Group. He was one of the most prominent articulators of a cosmopolitan “pan-Asianism” and “cooperativism,” writing a government pamphlet on the topic. During the war, he was a member of the army's propaganda bureau and was sent to Manila. He was arrested in 1945 as a communist sympathizer and subsequently died in prison.

theorists, Norô Eitarô and Inomata Tsunao,<sup>27</sup> the key point in the debate was the publication in 1932 of the multi-volume *Lectures on the History of the Development of Japanese Capitalism (Nihon shihonshugi hattatsu shi kôza)*, which announced the birth of the “Lectures” faction (*Kôza-ha*) of Marxism. These Marxists emphasized the semi-feudal nature of Japanese capitalism, which was characterized by “a highly industrial, militarist-monopolist sector...atop an economic foundation consisting of semi-feudal land ownership and a semi-serflike pattern of petty farming.”<sup>28</sup> Thus for them a bourgeois democratic revolution, as well as struggles against feudal structures, were the necessary first steps before advancing towards socialist revolution. Their opponents, the “Labor-Farmer” faction (*Rônô-ha*), asserted that Japan had all the trappings of a modern capitalist state—a modern land rent system, powerful finance capital, imperialism, and parliamentary democracy. They in turn advocated organizing for immediate socialist revolution.

Along with Norô, Yamada Moritarô,<sup>29</sup> and Hirano Yoshitarô,<sup>30</sup> Aikawa was a leading member of the *Kôza-ha*, publishing as many as fifty essays

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<sup>27</sup> Inomata was the founder of the Labor-Farmer (*Rônô*) Faction of Japanese Marxism, which believed that Japan had all the characteristics of a bourgeois-capitalist society and was ready for socialist revolution. Their opponents were Noro’s *Kôza* Faction. He became influenced by Marxism as a student in the U.S. between 1915 and 1921 through his interactions with East European immigrants. His view of Marxism was gradually sidelined and expelled from the rest of Japanese Marxist thought. He died in 1942 after being imprisoned for about five years.

<sup>28</sup> Sugiyama, 209.

<sup>29</sup> Yamada’s works were most representative of *Kôza-ha* Marxism. In *An Analysis of Japanese Capitalism*, he systematically diagrammed the militaristic and half-feudal nature of Japanese capitalism, particularly its mode of reproduction. He was arrested in 1937 and like many Marxist intellectuals, became part of the East Asian Institute, one of the leading state sponsored think tanks on Japan’s empire in East Asia.

<sup>30</sup> Along with Norô, Hirano was the other primary editor of the *Lectures on the History of the Development of Japanese Capitalism* series, focusing primarily on the legal institutions of Japanese capitalism. During the war, he was a researcher for the East Asia Institute and the South Manchurian Railway. He was also head of the Ethnicities Section for the pan-Asianist

against the Labor-Farmer faction in leftist journals such as *Proletarian Science* (*Puroretaria kagaku*), *Historical Science* (*Rekishii kagaku*), *Studies on Materialism* (*Yuibutsuron kenkyū*), and *Economic Review* (*Keizai hyōron*) between 1932 and 1935. Aikawa mostly focused on detailed research into the peculiarities of Japanese agriculture, authoring the third volume of the *Lectures* series, *The Agrarian Economy and Agricultural Recession* (*Nōson keizai to nōgyō kyōko*) in 1933. Here he mainly argued that Japan did not have a modern agricultural system based on capitalist land ownership and profit agriculture but rather, a system characterized by small-scale subsistence farming and a semi-feudal system of tenants paying exorbitant rents in produce.<sup>31</sup> Aikawa also published articles on the feudal nature of the Tokugawa period, refuting *Rônô-ha* arguments that the Tokugawa period achieved a pre-capitalist manufacturing stage of development. Articles such as “The Japanese System of Household Forced Labor,” “Tōhoku Villages—An Analysis of their Area and Character,” and “The Establishment of the Village System and their Structural Character” are examples of some of the various case studies he performed in order to explore the feudal origins and remnants of the contemporary agrarian economy. Aikawa also actively participated in the debate over the “Asiatic Mode of Production,” refuting the Orientalism of Soviet theorists, who ignored the peculiar aspects of feudalism and capitalism in different Asian countries through their blanket use of the category, as well as the *Rônô-ha* view that Japan had fully overcome the “Asiatic Mode.” Through his prolific writings and argumentative style, he asserted himself early on as a young star among Marxist intellectuals. His insistence on analyzing

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Pacific Association, where he fiercely wrote against “White Imperialism” and for the “Liberation of Asia.”

<sup>31</sup> Aikawa, *Nōson keizai to nōgyō kyōko* (Tokyo: Iwanami shoten, 1933).

the historical peculiarities and vicissitudes of a society rather than succumb to abstract theories or so-called “scientific laws” characterized his methodology throughout his career, especially in his writings on technology. His well-received but subsequently banned work, *Theory of Methodology of History* (1935), clearly laid out this historical methodology, as well as his theory of the “Asiatic Mode of Production” as a historical stage rather than a static, cultural one.<sup>32</sup>

### ***Aikawa’s Early Theory of Technology***

Aikawa began his research and writing on theories of technology while he was vice-head of research between 1932 and 1936 for the Research Group on Materialism (*Yuiken*), a large group of leftist academics from varying disciplines dedicated to developing historical materialism as a method of analyzing society. As mentioned above, the famous “Debate over the Theory of Technology” erupted in the pages of their journal during this period. Sparked by Bukharin’s mechanistic and formulaic theory of technology as the productive forces that determined a society’s historical progress toward socialism, the debate concerned itself with analyzing the nature of technology, and the role it had in the constitution and transformation of society. Aikawa defined technology as the “complex of objective means of social labor, or in short, the system of the means of labor,” and in a typical *Kôza-ha* manner, he tried to delineate the precise structure and character of technology in this narrow sense within Japanese capitalism. Against Bukharin’s mechanistic theory, Aikawa asserted the importance of technology’s “living unity” with labor

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<sup>32</sup> Aikawa, *Rekishi kagaku no hôhron* (Tokyo: Hakuyôsha, 1935). For more detail on the debates within Japanese Marxism, see Germaine Hoston, *Marxism and the Crisis of Development in Prewar Japan* (Princeton: Princeton University Press, 1986).

power.<sup>33</sup> Thus for Aikawa, while technology meant the objective means of production, it did so only in relation to the privileged subjective engine of social transformation—the proletariat.

The debate within *Yuiken* focused precisely on the status of this subjective moment of technology. In his provocative work, *Philosophy of Technology* (1933), Tosaka Jun defined technology as more than just the “system of the means of labor,” but as also including subjective “modes of existence” or techniques of interacting with the material world.<sup>34</sup> He delineated two concrete “modes” of subjective technology: “technology as the subjective mode of existence of material technology” (e.g. the activities of technicians operating a machine or musicians performing an instrument) and “ideational technology” (e.g. complex calculations by mathematicians, use of categories or structures by logicians). Tosaka was lambasted as an idealist by several members of *Yuiken*, including Aikawa, for defining technology as specific “modes of existence.” How could subjective techniques and skills be technologies in the material sense? For many, such as Aikawa and Nagata, this denied proletarian subjectivity by objectifying their labor power as “subjective modes” in a similar way that capitalists treated labor as quantities for profit.<sup>35</sup> However, Tosaka countered this argument by accusing his critics themselves of idealism for elevating some abstract labor power as the primary force for social transformation without exploring the specific ways that people

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<sup>33</sup> Aikawa, “Gijutsu oyobi tekunorogî no gainen” (The Concepts of Technology and Technology Studies), *Yuibutsuron kenkyû*, (June 1933):64.

<sup>34</sup> Tosaka Jun, “Gijutsu tetsugaku” (Philosophy of Technology) in Tosaka Jun, *Tosaka Jun zenshû* 3 [The Collected Works of Tosaka Jun], (Tokyo: Keisô shobô, 1966-1979), 236.

<sup>35</sup> See Nagata Hiroshi, “Seisanryoku no yôsô toshite no rôdôryoku ni tsuite” (On Labor Power as an Element of Productivity), *Yuibutsuron kenkyû* [Studies on Materialism], (Jan. 1933):46-49 and Aikawa, “Gijutsu oyobi tekunorogî no gainen,” 58-74.

in fact change and interact with the world.<sup>36</sup> Moreover, for Tosaka, technology was also a question of ideology and class—material technology was not just objective but also fundamentally structured by a skilled technocratic class that sustained the capitalist economic order.<sup>37</sup>

Much of this debate over the role of subjectivity in technology hinged around one footnote in Karl Marx's *Capital*. Marx first describes technology as “the productive organs of man [sic],...organs that are the material basis of all social organization,” and then writes as follows: “Technology discloses man’s mode of dealing with Nature, the process of production by which, he sustains his life, and thereby also lays bare the mode of formation of his social relations, and of his mental conceptions that flow from them.”<sup>38</sup> Strict materialists like Aikawa interpreted Marx as clearly establishing a “material” base of technology that determines a superstructure of “social relations and mental conceptions.” Aikawa elaborates on this definition of technology as the material “system of the means of labor” in his first work on technology, *Gijutsuron* (Theory of Technology, 1935), providing ample quotations from Marx’s works.<sup>39</sup> Tosaka, however, interpreted Marx as including “modes” or ways of forming social relations and mental conceptions within his definition of technology, or in short, various techniques of creating things that were not commonly regarded as “material.” In the end the more orthodox definition of technology as the material base that determines a social superstructure won the day; however, during the war, Aikawa was to later change his position on

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<sup>36</sup> Tosaka, “Gijutsu to ideorogī” (Technology and Ideology) in Tosaka, 255.

<sup>37</sup> Tosaka, “Gijutsu no shakai-teki chii” (The Social Knowledge of Technology), in Tosaka, 268-288.

<sup>38</sup> Marx, “Capital,” 375.

<sup>39</sup> Aikawa, *Gijutsuron* [Theory of Technology] (Tokyo: Mikasa shobō, 1935).

technology to include the subjective techniques and structures of everyday life, crediting Tosaka as one of his main influences.<sup>40</sup>

### ***Aikawa's Later Theory of Technology and Conversion to Japan's Imperial Project***

On the day of the attempted coup by right-wing military officers on February 26, 1936 (2.26 Incident), Aikawa was arrested for tutoring students on Yamada Moritarô's *Analysis of Japanese Capitalism (Nihon shihonshugi bunseki)*, an influential work that analyzed the particular ways that Japanese capitalism reproduced itself.<sup>41</sup> Four months later, he was arrested along with Yamada, Hirano, and Tosaka in a massive roundup of *Kôza-ha* Marxists (the "Communist Academy Incident"), which effectively ended any type of open Marxist dissent. Aikawa was held for nine months and finally released in early 1937, and he was then placed under police observation. Before being released, he wrote a statement saying that he would cease all Marxist activity, but he would not reject Marxist economics.<sup>42</sup> He stopped writing for a while, obtaining a position in the Editing Department of Iwanami, one of the largest publishers in Japan. Here he continued his research on technology while being in charge of corrections for the journal, *Science (Kagaku)*. In 1938 Aikawa agreed to participate in a government sponsored "research tour" to China. This was part of the state's attempt to co-opt leftists into directly taking part in Japan's imperial enterprise as researchers or propagandists. Aikawa accompanied a mission to Beijing, Shanghai, Nanking, and Wuhu led by

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<sup>40</sup> Aikawa, "Gendai gijutsuron," 90-91.

<sup>41</sup> Yamada Moritarô, *Nihon shihon shugi bunseki: Nihon shihon shugi ni okeru saiseisan katei haaku* [Analysis of Japanese Capitalism: Understanding the Process of Reproduction in Japanese Capitalism] (Tokyo: Iwanami shoten, 1934).

<sup>42</sup> Utsumi, et. al., 251.

Rôyama Masamichi,<sup>43</sup> himself a prolific writer on technology, especially on the “technologization” (*gijutsuka*) of administrative structures throughout society.<sup>44</sup> This so-called “cultural mission” was the occasion for Aikawa’s conversion to the state’s project of constructing the “New Order for East Asia.” In the preface to his popular work, *Modern Theory of Technology*, he explicitly credits this trip for confirming his belief in the importance of a comprehensive and practical theory of technology for the “cultural, intellectual, and scientific construction” of East Asia.<sup>45</sup> This signaled a shift from his purely materialistic definition of technology as the “system of the means of labor” to one that incorporated more subjective and practical modes of existence. While Aikawa refused to follow other Marxist intellectuals who stayed in China or Manchuria to become researchers for state think tanks or government employees, he still became a leading propagandist for Japan’s imperial project.

The height of the war served as the occasion for Aikawa to publish six books and numerous articles on technology. His first major work, *Modern Theory of Technology* (1940), laid out his basic conceptual framework for technology and Technology Studies and formally renounced his old definition of “system of the means of labor.” Instead, Aikawa grounded technology in human praxis and activity, thereby making human objectives, ideas, and interests central to its makeup, and he included the realms of culture, art, and

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<sup>43</sup> Rôyama was the leading figure in the study of administration, inaugurating that line at Tokyo Imperial University. He applied modern techniques of administration not only to government but also to all types of social activity. He was an early member of the Shôwa Research Association, the influential policy think tank, where he was one of the principal visionaries of the totalitarian New Order movements in the economy and government. In 1942 he was elected to the Lower House of Parliament as a candidate for the Imperial Rule Assistance Association.

<sup>44</sup> Rôyama Masamichi “Gijutsu to gyôsei” (Technology and Administration), *Kagakushugi kôgyô* [Scientific Industry], (May 1938).

<sup>45</sup> Aikawa, “Gendai Gijutsuron,” 3.

ethics, for instance, as spheres of technology as well (not just the economic). Borrowing from the philosopher/historian of technology, Saigusa Hiroto, he now defined technology as “means in process,” or in other words, the concrete cultural, economic, scientific, and political mechanisms and structures of society that were constantly being shaped through human practice and state objectives.<sup>46</sup> Technology Studies was the study of the development of these mechanisms and structures, a “border” discipline that incorporated the methodologies of economics, political science, philosophy, sociology, engineering, and natural sciences. *Modern Theory of Technology* formed the theoretical foundation to Aikawa’s notion of technology as the concrete, practical techniques and mechanisms that produce all aspects of life, or in this case, the “New Order in East Asia.” This basic theory manifests itself in his more specific works on different aspects of technology.

Aikawa joined the editorial staff of the Japan Technology Association’s journal, *Technology Review*, in 1941. As mentioned above, the Japan Technology Association was established in the 1920s by the Asian Development Board and Cabinet Planning Board bureaucrat, Miyamoto Takenosuke, one of the designers of the “New Order for Science and Technology,” and it was the most powerful political interest group for engineers and technology bureaucrats. They lobbied for aggressive expansion and development of East Asia, the establishment of a Technology Board, increased technical training of workers and youth, and expanding the role and status of technically trained bureaucrats in policy planning, among other things. Aikawa wrote frequently for the journal, publishing a “Notes on

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<sup>46</sup> Saigusa Hiroto, “Gijutsu no Grenzgebiet” (The Border Area of Technology) in *Kagakushugi kôgyô*, (September 1937).

Culture” column almost every month. He wrote on topics ranging from the “culture of technology in the US” to the reorganization of technology under the “New Order” to the status of technology in *bunka eiga* (culture films). At the Association, he had access to top-secret documents and interacted frequently with technology officials in the government, military, and private sector; however, he was sometimes viewed with suspicion because of his police record and communist past.<sup>47</sup> He was also a member of the National Policy Research Group (*Kokusaku kenkyūkai*), one of the leading advisory think tanks on national policy whose members included top figures from the government, academia, the military, and business (including Mōri). He helped write the top-secret report, *Theory of the Order of Technology for the Greater East Asia Co-Prosperity Sphere*, a report that suggested policies such as advanced technical training for non-Japanese workers, more investment in technical schools and increased science education for children in the colonies, and more intensive public hygiene programs to eliminate epidemics.<sup>48</sup>

Aikawa continued to maintain contact with his leftist colleagues, many of whom also “converted” (*tenkō*) to cooperating with the Japanese war effort. He published his next book, *Introduction to a Theory of Technology*, in 1941, which reaffirmed his theory of technology developed in the earlier work, and he defined its conceptual essence as a unity of three concepts: “the concept of employing natural scientific principles, the concept of the economic means of production, and the philosophical concept of formation through action.”<sup>49</sup> He

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<sup>47</sup> Utsumi, et. al., 89.

<sup>48</sup> See in particular Chapter Five, “Dai tōa kyōeiken minzoku kōsaku to gjutsu taisei” (Ethnic Construction in the Greater East Asian Co-Prosperity Sphere and the Order for Technology) in Kokusaku kenkyūkai, *Dai tōa kyōeiken gjutsu taiseiron* [The Theory of the System of Technology for the Greater East Asian Co-prosperity Sphere] (Tokyo: Nihon hyōronsha, 1945), 30-40.

<sup>49</sup> Aikawa, *Gijutsuron nyūmon* (Tokyo: Mikasa shobō, 1942), 155-156.

also developed various historical principles of technology. The following year he published *Technology Theory and Policy*, which analyzed Japan's technological structure and the specific policies and conceptual framework necessary to develop it.<sup>50</sup> *Industrial Technology*, the product of two and a half years of research, was published in 1942. It was a *Kôza-ha* type analysis of the particular character and structure of Japanese industrial and agricultural technology and their necessary path of development within the wartime order.<sup>51</sup> His research also extended to the question of technology, natural resource development, and industrialization in Southeast Asia in *Natural Resources of South East Asia and Technology* (1943). This originally appeared between 1941 and 1943 in the South Manchurian Railway East Asian Economy Research Institute (*Mantetsu tôa keizai chôsaïjo*) journal, *Shin Ajia* (New Asia), which primarily covered Southeast and Southwest Asia. As with his past analyses of the semi-feudal nature of Japanese capitalism, he examined the particular obstacles to heavy industrialization and modernization in Southeast Asia caused by Western imperialism and local feudalism, as well as the necessary steps to overcome them.<sup>52</sup> His final book on technology, *Technology and Skill Management* (1943), analyzed the changes in labor that accompanied mass war production and the new techniques of management that were necessary with these changes.<sup>53</sup>

Thus Aikawa analyzed a wide range of areas within technology: state policy, industrial technology, agricultural technology, colonial policy and development, and labor management. Central to these specific studies was

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<sup>50</sup> Aikawa, *Gijutsu no seisaku to riron* (Tokyo: Kigensha, 1942).

<sup>51</sup> Aikawa, *Sangyô gijutsu* (Tokyo: Hakuyôsha, 1942).

<sup>52</sup> Aikawa, "Tôna ajia no gijutsu to shigen."

<sup>53</sup> Aikawa, *Gijutsu oyobi ginô kanri: tairyô seisan he no tenkan* (Tokyo: Tôyô shokan, 1944).

his grounding of technology in sensuous praxis and historical transformation. Aikawa also extended his studies of technology to the realm of art and film. He was an avid theater and moviegoer, and published play and film reviews for the left-leaning newspaper, *Imperial University News* and the theater magazine, *Theater*. Aikawa was primarily interested in the blurring of the boundaries between human subjectivity and objectivity that accompanied the spread of film technology and culture. The camera and film negative signified more than just new instruments to create art but a mass transformation of human sensation and subjectivity itself. Theater signified an age of individualism and romanticism, while the film represented the new era of mass sensation and what he called the “culture of electricity.”<sup>54</sup> Aikawa was particularly interested in the documentary film (*bunka eiga*) genre, which became more and more prevalent during the war. For him the *bunka eiga* brought out the full potential of film technology since it combined scientific precision and capability with new aesthetic techniques. He advised GES, one of the most prolific producers of large-scale documentaries, and he published regularly in their research journal, *Culture Film*, a focal point for much of the theoretical discourse on documentary film. GES was a haven for former leftists who struggled to produce critical, aesthetically innovative films while formally supporting the war effort. Ishimoto Tōkichi’s *Snow Country* (*Yukiguni*, 1939), on the hardships of rural life, and Atsugi Taka’s *Record of a Nursery* (*Aru hobo no kiroku*, 1942), on child rearing and education during the war, represented some of their highest achievements. Aikawa not only took part in the theoretical debates, however, but he was actively involved in documentary production as well, most notably the making of *The Present Battle*, a film on an

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<sup>54</sup> Aikawa, “Gendai gijutsuron,” 250-251.

electric generator plant and worker relations there. He collected his theoretical articles and recorded his experience of making this film in his final wartime work, *Theory of the Culture Film* (1944).<sup>55</sup>

Through the intercession of his former leftist colleagues, Aikawa obtained a position with the news service, *Dômei Tsûshinsha*, and a part-time lectureship at Meiji University. He also established and headed the Institute of Technological Culture in Japan (*Nihon Gijutsu Bunka Kenkyûjo*) in 1944 with the help of other intellectuals such as Saigusa Hiroto<sup>56</sup> and Taketani Mitsu<sup>57</sup>, and the funding of Kamei Kanichirô, one of the intellectual mentors of the New Order movement for Science and Technology. The research institute realized Aikawa's dream of creating a central center for Technology Studies. However, he was conscripted a few months after the Yokohama Incident in January 1944, which shut down the two leading critical journals, *Central Review* (*Chuô Kôron*) and *Reform* (*Kaizô*). He was sent to the Soviet border in Manchuria and served as a cook for one year until the end of the war. Meanwhile, his institute was bombed, destroying its entire collections.

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<sup>55</sup> Aikawa, *Bunka eigaron* (Tokyo: Kasumigaseki shobô, 1944).

<sup>56</sup> Saigusa was a prominent historian and philosopher of science who helped develop these fields in the 1930s. Along with Tosaka and others, he was one of the founders of *Yuiken*. He originally viewed the "scientific" as a bulwark against "anti-scientific" fascism; however, his theories soon became complicit with Japanese imperialist designs in Asia.

<sup>57</sup> Taketani was one of the few scientists involved in left-wing politics before the war. He was an atomic physicist who cooperated with Yûgawa Hideki (1949 Nobel Prize winner) in discovering the meson. At Kyoto University, he was involved in the *World Culture* group against fascism along with Nakai Masakazu. After he was arrested and forced into silence, he joined the Institute for Physical and Chemical Research's Nuclear Physics section where he worked on developing an atomic bomb. After the war, he was active in the peace movement and became one of the leading theorists of technology in Japan.

### ***Aikawa after the War: POW Democratization Movement in the USSR***

After Japan surrendered, Aikawa fled to the USSR and surrendered to the Soviet authorities. He was interned in Birobijan in the Khabarovsk region of the Soviet Far East and forced into hard labor under horrific conditions. Since the Soviets usually kept the leadership structures intact within the Japanese military, soldiers continued to suffer under authoritarian officers who propagated the same emperor-centric, ultra-nationalist ideology. Encouraged by the Soviet message of anti-fascism, socialism, and national self-determination, and their efforts to “re-educate” Japanese soldiers, he helped lead what became known as the “Prisoners of War Democratization Movement.” From 1945 to 1947, this took the form of fighting corrupt officers who cheated soldiers from fair rations and better labor conditions, and who reported uncooperative soldiers to Soviet authorities as “anti-Soviet” or “obstructionists.” Aikawa became editor of the *Khabarovsk Japanese News*, a focal point for the democratization movement. The newspaper pushed a strong anti-emperor system, anti-militarist line, and they called for improved living conditions, prosecution and re-education of officers, and more control over their own working conditions. They also sponsored study groups and cultural events such as plays, lectures, and readings for Japanese soldiers with the blessing of the Soviet authorities.<sup>58</sup>

Aikawa whole-heartedly threw himself into strengthening the Soviet communist movement among Japanese soldiers during the next two years,

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<sup>58</sup> For information on Aikawa’s USSR period, I rely on his post-war account. See Aikawa, Haruki, “Zaiso minshû undô no hito kessan: sono seika to jiko hihan” (An Account of the Democracy Movement in the Soviet Union: Its Successes and Self-Criticism) in Utsumi, et. al., 270-297.

1947 to 1948. “Democracy groups” sprung up everywhere and many meetings and congresses were held to unify and strengthen the democratization movement. Efforts to purge the leadership of “class enemies,” develop a strong proletarian consciousness, and train committed cadres were undertaken through frequent classes and lecture tours, which Aikawa often led. The movement united around the slogans of anti-fascism, anti-imperialism, and establishing a “people’s government” in Japan. It was also committed to Soviet internationalism and to achieving Stalin’s five-year plan of industrialization through collective labor.

During the years 1948 to 1949, the movement fully took on the character of the international socialist movement led by the Soviet Union. “Anti-fascist Committees” were formed and centered around the workplace; courses were offered on Marxism-Leninism, international events, and the political situation in Japan; and productivity competitions were held to celebrate occasions such as May Day. Ties with the Japanese Communist Party were strengthened, and it was hoped that former Japanese soldiers would be at the forefront of democratization and socialist revolution in Japan. Most of the soldiers, including Aikawa, were finally repatriated in 1949; however, they faced much suspicion from a now “democratic” Japan and accusations of being brainwashed by the Soviets.

### ***Aikawa’s Return to Japan***

After a short period at a U.S. detention facility, he immediately continued his political activity as a member of the Central Committee of the Japan Communist Party, joining its propaganda bureau and heading its committee on repatriated soldiers from the Soviet Union. In an article on his

four years of heading the prisoner of war democratization movement, Aikawa admitted the problem of low party participation by returnees, and he criticized the movement for sometimes being dogmatic, unresponsive to individual interest and initiative, and subject to violent, vengeful tendencies suggestive of the fascism they were trying to overcome.<sup>59</sup> In 1950 he was expelled from the Central Committee and the editorial board of the party's newspaper, *Red Flag* (*Akahata*), during the fierce split in the party over the Cominform policy that instructed Japanese communists to focus on the "anti-imperialist struggle" or overthrowing the U.S. occupation rather than on peaceful revolution through parliamentary politics under the occupation (Aikawa supported Cominform). While recovering from tuberculosis and kidney problems he suffered from as a prisoner of war, he contributed to an illustrated history of technology, *Illustrated Inventions and Discoveries* (*Hatsumei hakken zusetsu*). Aikawa wrote primarily on industrial machinery, transportation and communications, and metallurgy.<sup>60</sup>

While he was in the Soviet Union, the second "Debate over the Theory of Technology" broke out in Japan, and Aikawa's theory of technology was dismissed as fascist without any serious examination.<sup>61</sup> The debate pitted Taketani Mitsuo and Hoshino Yoshirô, who defined technology subjectively as the "conscious application of objective laws," against Aikawa's former colleagues at *Yuiken*, Oka Kunio and Yamada Sakaji, who stuck to the objective definition of technology as the "system of the means of labor."<sup>62</sup> The debate lacked the sophistication of the wartime debate on technology, which

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<sup>59</sup> See the section, "Self-Criticism," in Aikawa, "Zaiso minshû undo," 291-297.

<sup>60</sup> Aikawa Haruki, Yamazaki Toshio, and Tanaka Minoru, *Hatsumei hakken zusetsu* (Tokyo: Iwasaki shoten, 1952).

<sup>61</sup> Yamazaki Toshio, "Sen kyûhyaku yonjyûnen igô" (Post-1940) in Utsumi, et. al., 93.

<sup>62</sup> For more on the post-war debate, see Nakamura, "Gijutsuron ronsôshi," vol. 2.

often explored the ways in which technology and subjectivity were mutually intertwined to generate an immense potential for societal transformation and mobilization. The post-war debate narrowly reduced technology to the status of mere instrument of rational goals without seriously exploring technology as the very process of social construction and mobilization itself. For them technology was merely the rationally used instruments for Japan's economic and democratic development. Ironically it was the wartime period that enabled intellectuals to explore the dynamics of subjectivity and technology in a way that was completely occluded after the war. However, it was precisely these wartime dynamics of technology as a powerful method of social mobilization and transformation that Aikawa focused on, which subsequently drove Japan's post-war development.

Aikawa heard about the debate and criticism upon his return, and he promised to write a new theory of technology, admitting his complicity with Japanese imperialism and militarism.<sup>63</sup> However, his renewed involvement in politics delayed these plans. In 1953 he became chairman of the Repatriation of Our Brethren in China Society (*Zaika Dôhō Kikoku Kyōkai*), and he threw himself into repatriating and rehabilitating the enormous number of colonial returnees. He also renewed his communist party activity, campaigning in Kansai and Shikoku for party candidates in national elections. He led a national signature campaign to mourn the death of Joseph Stalin, replicating a movement he led among Japanese soldiers in the Soviet Union to express gratitude to the leader. He died in dramatic fashion on April 29, 1953, collapsing while giving a speech to a campaign strategy meeting at

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<sup>63</sup> Yamazaki, 93-94.

Communist Party headquarters. He was never able to write the new theory of technology that he had promised.

### III. AIKAWA'S "MODERN THEORY OF TECHNOLOGY"

#### *Technology as Ethos*

With the outbreak of the war with China in 1937 and the 1938 proclamation by Prime Minister Konoe Fumimaro of the construction of a "New Order for East Asia," Aikawa began to develop a "practical" theory of technology suitable for Japan's mission of creating a modern, prosperous, multi-ethnic sphere and "control economy" (*tōsei keizai*) in East Asia. In the preface to *Modern Theory of Technology*, Aikawa writes about how his participation in the Rōyama-led "inspection tour for cultural work in Central China" in 1938 encouraged him to write a new theory of technology.<sup>64</sup> "I discovered that cultural, intellectual, and scientific construction were central to building a New Order in East Asia, and I became firmly convinced that these must be carried out in Tokyo as well, based on interactions with Shanghai and Peking," he writes.<sup>65</sup> Previously, Aikawa defined technology narrowly as "the complex of objective means of social labor, or in short, the system of the means of labor;" however, in his new work, he rejects this "materialist perspective," and proceeds to include all kinds of social production—including economic, cultural, political, and intellectual production—beneath the rubric of technology.<sup>66</sup> Filled with a "national awareness" and "strong sense of practice," Aikawa also emphasizes the spiritual, creative, and transformative

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<sup>64</sup> Aikawa, "Gendai gijutsuron," 3.

<sup>65</sup> *Ibid.*, 3.

<sup>66</sup> *Ibid.*, 2.

aspects of technology. Technology is not just the instrumental means of production that dutifully realizes human objectives and ideals. Rather, it includes a society's physical machinery, processes of social reproduction, institutional makeup, and methods of administration, organization, and management, for example, all of which are fundamentally infused with a social ethos or human objective. Ethos or "spirit" are not external to technology but form an integral part of it. Thus the very design of a society's productive processes or technologies are infused with the predominant ethos—in Aikawa's case, the Japanese state's goal of building a "New Order in East Asia" that would eliminate the ills of monopoly capitalism, violent nationalism, and social conflict characteristic of the early twentieth century.

Aikawa's project can be seen as part of the larger project on the part of Japanese intellectuals and bureaucrats to "overcome modernity."<sup>67</sup> According to him, technology was usually seen as an impersonal, objective force opposed to or even suppressive of the human "spirit."<sup>68</sup> The question of the conflict between "spirit" and "technology," and how they were to be unified was a pressing concern among intellectuals in Europe and Japan.<sup>69</sup> The prevalence of hybrid terms such as "technological spirit," "technological culture," "technological science," and "technological mobilization" in Japan at the time illustrates some of the ways that intellectuals and bureaucrats ambiguously dealt with the conflict.<sup>70</sup> Under modern capitalism, the

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<sup>67</sup> The symposium to "overcome the modern" was a gathering of prominent Japanese critics, thinkers, scholars and writers in Kyoto in July 1942. In light of Japan's war success in Asia, they discussed how Japan should "overcome" the trappings of "Western" modernity - for example, democracy, individualism, capitalism, and liberalism. The proceedings were published. See Kawakami. For an overview in English, see Harootunian, 34-94.

<sup>68</sup> Aikawa, "Gendai gijutusuron," 5.

<sup>69</sup> For example, see Oswald Spengler, *Man and Technics: A Contribution to a Philosophy of Life* (New York: A.A. Knopf, 1963).

<sup>70</sup> Aikawa, "Gendai gijutusuron," 7.

metaphysical conflict took the form of a social division of labor between manual “technical labor” and the “dictatorial entrepreneurial spirit” of management.<sup>71</sup> According to Aikawa, however, this metaphysical split was becoming less and less relevant with the permeation of technology and technological rationality throughout daily life and culture. Also, with the ongoing efforts to establish a “New Order in East Asia” that would overcome the contradictions of capitalism and modernity, the meaning of technology would also change such that the split between “subjective spirit” and “objective technology” would finally be overcome.<sup>72</sup> For Aikawa, “the standpoint of the unity of praxis” was the basis for a new theory of technology, and it would dissolve the artificial split between spirit and technology.<sup>73</sup>

In the epigraph to his preface, “The Modern Meaning of a Theory of Technology,” Aikawa quotes an old Greek proverb: “*Techne* that is not unified with *alethe* does not exist, and it can not even arise.”<sup>74</sup> In ancient Greece, *techne* meant any type of art, craft, skill, or handiwork, ranging from music to sculpture to rhetoric.<sup>75</sup> *Alethe* meant truth or what is genuine, valid, or real (Aikawa translates it as “moral principle”).<sup>76</sup> With this epigraph, Aikawa sets the tone for his modern theory of technology, which argues that technology is fundamentally unified with the goals and principles of the human subject. He is not, however, trying to restore the ancient Greek notion of technology or *techne*, which he says was specific to the Greek historical context but rather, he was trying to bring about a fundamental unity between “technology and

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<sup>71</sup> Ibid., 9.

<sup>72</sup> Ibid., 10.

<sup>73</sup> Ibid., 1.

<sup>74</sup> Ibid., 4.

<sup>75</sup> Ibid., 50-51.

<sup>76</sup> Ibid., 4.

spirit” in a way more suitable to Japan’s mission of creating a “New Order” in East Asia.<sup>77</sup> Aikawa first conceptually defines the unified nature of technology: “[I]n the practical activity of production, there is technology wherever goal-oriented activity unites with its means, which are the tools.”<sup>78</sup> Technology unites two kinds of human activity: the activity of devising and realizing goals, and the activity of interacting and experimenting with the material world.<sup>79</sup> According to Aikawa, there are all kinds of technologies in the world: political technology, legislative technology, management technology, military technology, scientific experimental technology, artistic technology, religious technology, medical technology, sports technology, and even “technologies of love” (*renai gijutsu*).<sup>80</sup> All of these social technologies of production are technologies that realize specific human goals to the extent that interaction with the material world allowed. In Hegel’s terms, a philosopher Aikawa often quotes, these technologies of social production represent the realization of the rational or the concrete manifestations of “practical ideas.”<sup>81</sup>

### ***The Practical Conception of Technology***

The “standpoint of praxis and production” constitutes the philosophical foundation to Aikawa’s theory of technology, and it reveals the fundamental unity of technology, which was previously seen as always in conflict with “spirit.” Technology is not just objectively external to spirit but itself contains a subjective, practical moment. Like most of his contemporaries, Aikawa does not work with a simplistic notion of subjectivity as a subject divorced from an

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<sup>77</sup> Ibid., 52-53

<sup>78</sup> Ibid., 17.

<sup>79</sup> Ibid., 17.

<sup>80</sup> Ibid., 22.

<sup>81</sup> Ibid., 72-74.

external world, but as practical subjectivity (*shutai*), self-creation, and concrete involvement in the world and with other subjects. His notion of subjectivity is largely indebted to Marx, particularly his first thesis on Feuerbach:

The chief defect of all previous materialism (including Feuerbach's) is that the object, actuality, sensuousness, is conceived only in the form of the *object or perception*, but not as sensuous human activity, practice, nor subjectively. Hence, in opposition to materialism, the active side was developed by idealism – but only abstractly since idealism does not know actual, sensuous activity as such. Feuerbach wants sensuous objects actually different from thought objects: but he does not comprehend human activity itself as *objective*. Hence, in *The Essence of Christianity* he regards only the theoretical attitude as the truly human attitude, while practice is understood and fixed only in its dirtily Jewish form of appearance. Consequently he does not comprehend the significance of "revolutionary", of "practical-critical" activity.<sup>82</sup>

In his earlier work, *Theory of Technology*, Aikawa emphasizes the historicity of the assumed split between “spiritual life processes” and “material productive processes,” directly quoting from the second thesis on Feuerbach, which emphasizes the practical, historical nature of truth.<sup>83</sup> In *Modern Theory of Technology*, all direct references to Marx's theory of subjectivity as “sensuous human activity” and praxis disappear yet remain strongly implicit throughout. For example, he dedicates a section to how human beings actively developed their physical and social attributes through interaction with each other and the material world, again emphasizing the historicity and practical origins of

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<sup>82</sup> Marx, “Theses on Feuerbach” in Lloyd D. Easton and Kurt H. Guddat, eds, *Writings of the Young Marx on Philosophy and Society*, (Garden City, NY: Doubleday, 1967), p. 400.

<sup>83</sup> “The question whether human thinking can reach objective truth—is not a question of theory but a *practical* question. In practice man must prove the truth, that is, actuality and power, this-sidedness of his thinking, in practice. The dispute about the actuality or non-actuality of thinking—thinking isolated from practice—is purely a *scholastic* question.” Ibid., 400. Quoted in Aikawa, “Gijutsuron,” 122.

“consciousness” and “thought.”<sup>84</sup> By understanding technology as all types of subjective, transformative action within the world, Aikawa was most likely borrowing from the Marxist tradition. For him technology is not some impersonal external force, but imbues all practical “life activity.” This is best captured in the term, “life technologies” (*seikatsu gijutsu*), which he uses throughout his subsequent work, *Introduction to a Theory of Technology*.<sup>85</sup>

Aikawa was also in conversation with many other intellectuals and bureaucrats who were also developing their own practical conceptions of technology, particularly those who wrote in Ôkochi Masatoshi’s journal, *Scientific Management*, and those who were members of the Industrial Technology Association (*Sangyô Gijutsu Renmei*).<sup>86</sup> *Scientific Management* in fact served as a site for developing new theories of technology during the wartime. In particular, Aikawa analyzes the thought of the philosophers, Funayama Shinichi,<sup>87</sup> Kôyama Iwao,<sup>88</sup> Miki Kiyoshi, and Saigusa Hiroto, all of

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<sup>84</sup> Aikawa, “Gendai gijutsuron,” 54-65.

<sup>85</sup> In particular, see Chapter Two, “Seikatsu no naka no gijutsu” (Technology in Life) in Aikawa, “Gijutsuron nyûmon,” 26-50. Much of this is a repeat of notions first developed in *Modern Theory of Technology*. Therefore, I will not spend much time analyzing this work.

<sup>86</sup> Ôkochi established the Physical and Chemistry Industrial Promotion Company (*Rikagaku Kôgyô KK*), a large business concern that developed over sixty enterprises based on inventions from its scientific research institute. He developed a popular philosophy called “scientific industry” (*kagakushugi*), which called for investing all profits into research and wages, and separating management from capital among other things. He propounded “scientism” in opposition to “capitalism.” See Ôkochi Masatoshi, *Shihonshugi kôgyô to kagakushugi kôgyô* [Capitalist Industry and Scientific Industry] (Tokyo: Kagakushugi kôgyôsha, 1938). For more on Ôkochi, see Cusumano. Sangiren was an umbrella organization of the four main technology associations—the Japan Artisans Club, the Japan Technology Association, the Seven Ministry Engineers Committee, and the China Technology Association. It was started in 1938 and consisted of over 1,500 bureaucrats, engineers, and business leaders. For more, see Ôyodo, “Miyamoto Takenosuke,” 249-255.

<sup>87</sup> Funayama was one of the leading Hegel scholars of the pre-war period. He was associated with *Yuiken* and contributed many essays on dialectical materialism. With the war, however, he applied Hegel’s notion of the dialectical totality that preserves difference to Japan’s “New East Asian Order.”

<sup>88</sup> Kôyama was a leading disciple of Nishida in the Kyoto School of Philosophy. During the war, he and other Kyoto School philosophers developed a philosophy of total war and Japan’s new “world historical standpoint.”

who wrote articles for the journal. For example, he notes how Kôyama viewed technology as the “point of unity or bridge between the world of objective things that human beings are always changing and the world of practically subjective (*shutaiteki*) ideas that human beings are always creating.” For Kôyama the specific “experience of labor” in the world was the essence of technology.<sup>89</sup> Aikawa also borrows from Saigusa’s “new cultural conception of technology.”<sup>90</sup> Saigusa defined technology in its broadest, most general sense as “means in process for human desire, which are conditioned by natural material.”<sup>91</sup> For Aikawa, Saigusa’s definition of technology as “means in process” captured the “dynamic, variable direction” of technology not present in Aikawa’s previous definition of technology as “the system of the means of labor.”<sup>92</sup> The “means” in Saigusa’s definition captures the objective sense of technology, while the “in process for human desire” captures the practical subjective sense—the technologies of life activity are always “in process” because they are inextricably tied to self-creation and the formation of the world. “Conditioned by natural material” captures the element of resistance by the natural world, which in turn stimulates the need for new technologies to overcome such resistance.

Aikawa was also influenced by the *Sangyô Gijutsu Renmei*’s (Industrial Technology Association or *Sangiren*) notion of “integrated technology,” originally developed by its leader, Miyamoto Takesosuke.<sup>93</sup> In its founding prospectus, *Sangiren*, an organization consisting of over one thousand five

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<sup>89</sup> Aikawa, “Gendai gijutsuron,” 18.

<sup>90</sup> *Ibid.*, 32.

<sup>91</sup> *Ibid.*

<sup>92</sup> *Ibid.*, 33.

<sup>93</sup> See the essays in Miyamoto Takesosuke, *Tairiku kensetsu no kadai* [Problems of Constructing the Continent] (Tokyo: Iwanami Shoten, 1941).

hundred bureaucrats, engineers, and businessmen, pledged to mobilize “integrated technologies across the natural and social sciences” in order to increase productivity and construct the “New Order in East Asia.”<sup>94</sup> By the term, “integrated technology,” Miyamoto attempted to broaden the meaning of technology to include political, management, economic, and legislative technologies, rather than just specialized scientific technologies.<sup>95</sup> For Miyamoto, technology had to do with the very formation of an entire society—it was imbued with a fundamental “sociality.” Moreover “technology itself is a body of possibility, and not a means,” he writes.<sup>96</sup> Thus not just innovative machinery and techniques, but new laws, policies, institutions, ideological campaigns, and academic research, for example, needed to be established in order to realize the New Order in East Asia. For Miyamoto and *Sangiren*, these specific technologies were indeed the dynamic “bodies of possibility” that produced an entire society.

### ***The Sociality and Historicity of Technology***

The first principle of Aikawa’s modern theory of technology then is the “practical unity” of technology, its basis in subjective practice, creation, and transformation. However, Aikawa is also quick to add that technology is fundamentally socio-historical as well. He writes:

However, this standpoint of human praxis does not stand by itself but rather, it must also be a socio-historical standpoint that opposes and sublates the standpoint of praxis. This is nothing but the standpoint of

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<sup>94</sup> Ôyodo, “Miyamoto Takenosuke,” 250-251.

<sup>95</sup> The new “administrative engineer” would “maintain contact with all fields including government, economics, and culture, and show their integrated results...I think that this is the new direction of technology and at the same time its true mission,” Miyamoto writes. Quoted in Mimura, “Technology Bureaucrats,” 107.

<sup>96</sup> Aikawa, “Gendai gijutsuron,” 44-45.

socio-historical production. Only in production are all things socio-historical practically unified, and spirit and technology, consciousness and matter become sublated, united, and made into one. Under the name of productive praxis, we must return to the standpoint of such dialectical unity and begin from there.<sup>97</sup>

Continuing to employ a Marxist-Hegelian methodology, Aikawa insists on a concrete socio-historical analysis of technology, rather than on mere abstract speculations of it as, for example, being practical by nature or as the unifier of consciousness and matter, technology and spirit. For Aikawa, the very meaning of technology changes historically with each stage or mode of production that human beings create. For example, the popular meaning of technology as the “objective means of production” itself arose with the Industrial Revolution and the development of industrial capitalism based on machinery and the technical organization of labor, destroying the older sense of technology as skill, handicraft, or technique.<sup>98</sup> Under the heavy industrial monopoly capitalism of the twentieth century, however, technology began to take on wider, cultural meanings. He writes:

Since technology, which is the object of a theory of technology, originally constituted the physical, objective *base* of human socio-historical life and action, it has undoubtedly *permeated* itself from below throughout every aspect of the human socio-historical world. Therefore, the theory of technology has probably now realized itself throughout every realm of thought, science, and culture<sup>99</sup>

The spread of electricity and the heavy chemical industries, for example, has fundamentally challenged the meaning of technology as merely the material means of production. Electricity has enabled the spread of the mass media

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<sup>97</sup> Ibid., 10-11.

<sup>98</sup> Ibid., 101-103.

<sup>99</sup> Ibid., 12. Emphasis is Aikawa's.

and more “immaterial” cultural technologies that blur the gap between subject and object.<sup>100</sup> The heavy chemical industry has created synthetic, artificial resources, which point to a future where human beings could create their own world and be less limited by natural resources. Technology has openly revealed its self-formative, creative essence, and it is no longer merely the objective, instrumental means of processing the natural world.<sup>101</sup> Thus “the practical nature of technology” means that the very meaning of technology itself changes over time as well—it is always historically specific, and it can only be fully grasped through a concrete socio-historical analysis in addition to a philosophical one.

### ***Society as Integrated Complex of Technologies***

In sum Aikawa views technology as (1) having a practical, creative essence that permeates every productive mechanism of society, and (2) having a socio-historical essence that makes its very meaning always open to change. After analyzing many other conceptions of technology, Aikawa finally arrives at his own general concept: “Technology is the external means or complex, organization, and system of those means *amidst* processes of activity that are conscious of human socio-historical goals.”<sup>102</sup> Technology in general is the “complex” of cultural, political, economic, scientific, and intellectual technologies specific to a historical period that are always imbued with specific, practically determined objectives.

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<sup>100</sup> For the effects of electrification on culture, see *Ibid.*, 250-257. More on this later.

<sup>101</sup> *Ibid.*, 252-253

<sup>102</sup> *Ibid.*, 85. Emphasis mine. The “amidst” is important because it rejects the clear-cut distinction between subject and object, human and inhuman.

Aikawa provides a detailed diagram of the particular complex of technologies that constituted 1930s imperial society. He writes, “The social organization itself is specifically constituted by the total process of goal-oriented practices of social human beings, and throughout all areas of society, these practical processes each have their very own technologies.”<sup>103</sup> Different technologies or “practical processes” constitute the society—society is never something general or abstract. Aikawa offers the following diagram of technologies that make up the specific social structure of imperial wartime Japan (see following page). He presents his technological diagram of society as a counter to three prominent works on technology of the time: Friedrich Gottl-Ottlilienfeld’s *Economy and Society (Wirtschaft und Technik, 1923)*, Baba Keiji’s *Technology and Society (Gijutsu to shakai, 1936)*, and Tosaka Jun’s *Philosophy of Technology (Gijutsu no tetsugaku, 1933)*.<sup>104</sup> Each author offers his own diagram of society illustrating the different technologies that constitute it. According to Aikawa, Baba and Gottl merely list the different technologies of society as if they were instrumental objects without providing a dynamic principle to unify and motivate them.<sup>105</sup> Tosaka correctly challenges the view of technology as simply the “system of the means of production” in society by establishing the importance of the practical “subjective technologies” (*shukanteki/kojin shutaiteki gjijutsu*) of workers in the labor process. However, according to Aikawa, his view is too narrow because he never extends this subjective, practical moment outside of the workplace to the technological processes that constitute an entire society.<sup>106</sup> Aikawa instead

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<sup>103</sup> Ibid., 92-93.

<sup>104</sup> Baba Keiji, *Gijutsu to keizai* (Tokyo: Nihon hyōronsha, 1936). Friedrich Gottl-Ottlilienfeld, *Wirtschaft und Technik* (Tübingen: J.C.B. Mohr, 1923). Tosaka.

<sup>105</sup> Aikawa, “Gendai gjijutsuron,” 87-90.

<sup>106</sup> Ibid., 90-93.

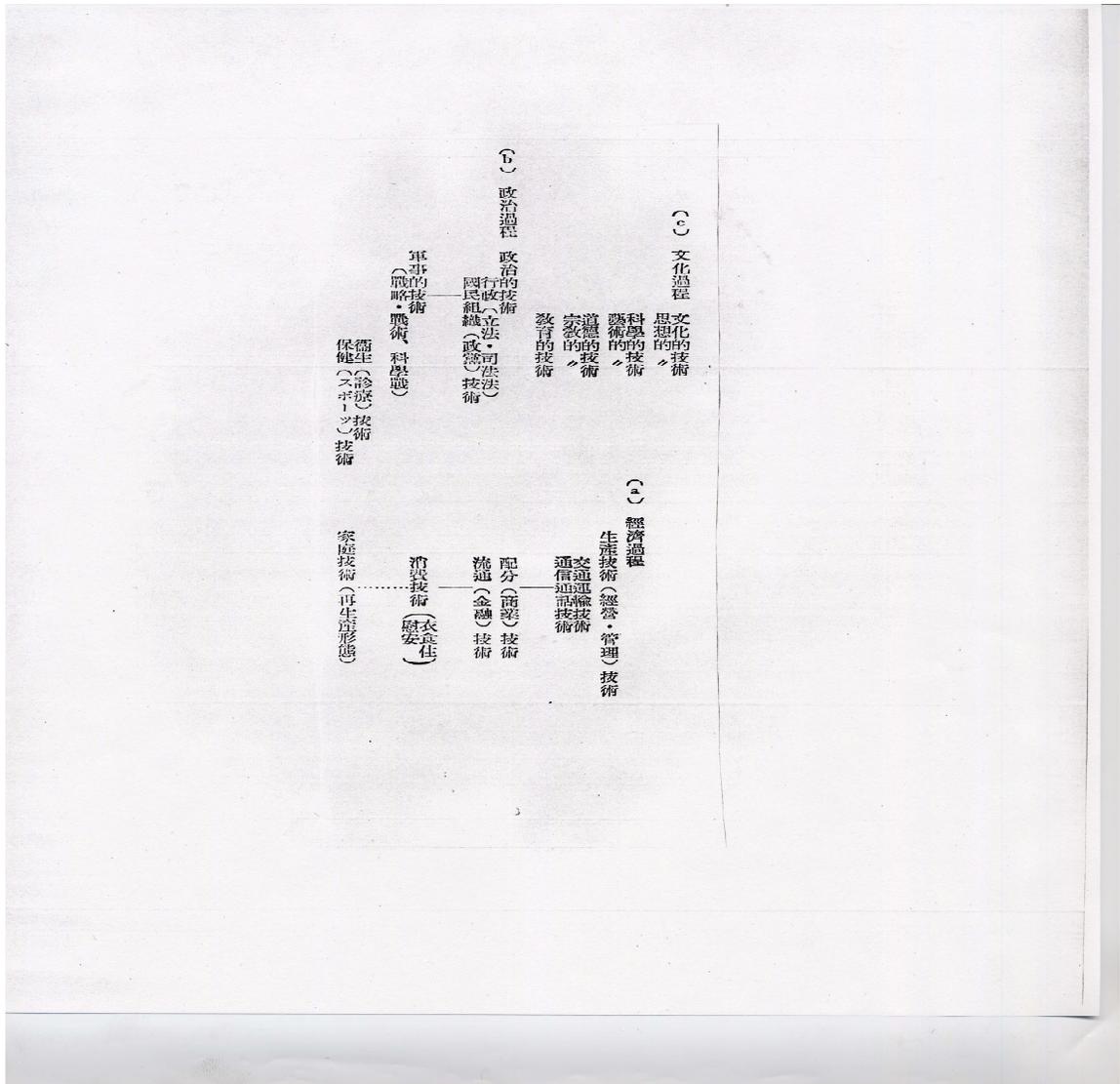


Figure 2.1 The Technologies of Society<sup>107</sup>

<sup>107</sup> Ibid., 95.

presents us with a complicated “three-dimensional pyramid organization of society” in which “practical processes” or technologies are independent of each other yet organically unified at the same time.<sup>108</sup>

While at first glance, the diagram seems to portray an orthodox Marxist base-superstructure organization of society in which the economic-productive base determines the ideal superstructure, it is in fact much more complicated than this. “Economic processes” indeed form the material base of society.

These consist of the following (see (a) on Figure 2.1, from right to left):

1. Production Technology (Management Technology), Transportation Technology, Communications Technology
2. Distributive (Commercial) Technology, Circulatory (Financial) Technology
3. Consumer Technology (Food, Clothing, Housing, Leisure)
4. Family Technology (Form of Reproduction)

Above the economic base are “political processes” consisting of the following (see (b) in Figure 2.1, from right to left):

1. Political Technology: Administrative Technology (Law-making, Administration of Justice), National Organization Technology (Political Parties)
2. Military Technology (Strategy, Tactics, Scientific War), Hygienic Technology (Medicine), Health Technology (Sports)

Parallel to political processes in the superstructure are “cultural processes” consisting of (see (c) in Figure 2.1, from right to left):

1. Cultural Technology, Intellectual Technology
2. Scientific Technology, Artistic Technology

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<sup>108</sup> Ibid., 94.

### 3. Moral Technology, Religious Technology

### 4. Educational Technology

“While the various processes relate to each other in a complicated manner, we can also see that each process has an independent position and development,” Aikawa writes.<sup>109</sup> While economic processes are privileged in that “production” constitutes the general meaning and goal of each technology, they are not the primordial instance that mechanically determines the entire social structure. Political and cultural processes can also affect economic ones, as well as one another. For example, Aikawa writes, “In the modern advanced national defense state, we cannot think of political processes in isolation from the guidance of economic processes, nor can we think of productive technology in isolation from science.”<sup>110</sup> Later Aikawa analyzes how the laws of economics determine the organization of technology (e.g. industrial planning) and the dictates of technology in turn determine the organization of the economy (e.g. machinery determining the division of labor).<sup>111</sup> He seems to be developing a similar concept to Louis Althusser’s “overdetermination” where different processes mutually determine one another in a complicated, unpredictable fashion, rather than all being determined by one instance.<sup>112</sup> However, for Althusser, these overdeterminations lead to the creation of a “ruptural unity” that ushers in the revolutionary moment.<sup>113</sup> For

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<sup>109</sup> Ibid., 94.

<sup>110</sup> Ibid., 94.

<sup>111</sup> See Ibid., 210-226.

<sup>112</sup> See Louis Althusser, “Contradiction and Overdetermination” in Louis Althusser, *For Marx*, tr. Ben Brewster (London: Verso, 1996), 87-116. This concept challenged the orthodox Marxist view that the contradiction between the forces of production and the relations of production was the main factor determining successful proletarian revolution. Althusser argued rather that a whole series of contradictions determined the likelihood of revolution, not just one.

<sup>113</sup> Ibid., 99.

Aikawa, on the other hand, the overdeterminations of different technologies form an organic, integrated totality of distinct processes that would produce the all aspects of society. All social contradictions and antagonisms would be quickly resolved through the operation of these different technologies.

While at face value, the social formation is divided into “ideational life processes” (*kannenteki seikatsu katei*) such as political and cultural processes and “material life processes” (*bussuitsu seikatsu katei*) such as economic processes, Aikawa emphasizes that this division is only relative. Ideational processes are ideational only relative to the fact that they are material as well. Material processes are material only relative to the fact that they are ideational as well. Both constitute and interpenetrate (overdetermine) one another. For example, “family technologies” are not independent from “political processes” such as health and hygiene technologies or “cultural processes” such as “educational technologies.”<sup>114</sup> “Within each process, elements of other processes may be found,” Aikawa writes. What makes “educational technologies,” for example, “ideational” is the fact that the “central component” of that technology consists of a specific type of ideational production, according to Aikawa.<sup>115</sup> Moreover, all of the “life processes” form a “social organic totality,” making any artificial separation into “ideational processes” and “material processes” ultimately irrelevant.<sup>116</sup> Indeed, the “standpoint of totality” permeates every technology. At the same time, each technology maintains its distinctiveness and independence within the totality.

The animating principle of the totality, which permeates each and every technology is the principle of production and praxis—in other words, what

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<sup>114</sup> See Figure 2.1.

<sup>115</sup> Aikawa, “Gendai gijutsuron,” 96.

<sup>116</sup> *Ibid.*, 96.

Aikawa sees as the essence of technology, as we saw above. In fact the war and the Japanese state's efforts to expand wartime production helped bring out this practical sense of technology.<sup>117</sup> More specifically, every life process or technology operates not only for the short-term goal of increasing wartime production for victory, but to mobilize all areas of life to produce the New Order in East Asia. New national organizations, laws, management techniques, educational systems, ethical ideals, artistic forms, communications networks, forms of consumption, and methods of mobilizing the family are all necessary to build the New Order. Technologies produce life in its entirety, not just material goods. In short Aikawa presents us with a totalitarian vision of imperial society where different technologies operate and govern every aspect of life. Yet this is not a simplistic totalitarian vision of repression and enforcement of homogeneity but rather one that tries to maintain the distinct nature of different life activities at the same time. In fact the "organic totality" can only function through the simultaneous operation of different technologies dispersed throughout life. Aikawa envisions a totalitarian society fully mobilized for the construction of the New Order, a society that would preserve and employ the different life processes of modern society rather than flatten them out. In such a technological society, science and technology are no longer opposed to humanity but "personalized" (*jinkakuka*) or made consistent with everyday human activity and subjectivity, according to Aikawa.<sup>118</sup> Yet at the same time, those who are technologically incorporated into the "organic totality" can no longer articulate democratic demands that would fundamentally

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<sup>117</sup> Ibid., 236.

<sup>118</sup> Ibid., 152.

transform the relations of subordination—those who did were violently suppressed or intimidated.

This “New Order” that mobilizes all areas of life into an organic system constitutes what Aikawa calls an “internal critique of modernity.”<sup>119</sup> He is not interested in propagating some “Eastern” counterpart to so-called Western modernity.<sup>120</sup> Rather his vision of society is to internalize modernity while in the process “internally critiquing” it. His theory of technology as the various processes of human life that go into the production of an “organic totality” where social conflict would be eliminated constitutes the “alternate modernity” that Japan was destined to forge.<sup>121</sup> For Aikawa and many others, Japan’s “world-historical mission” was to create this modernity that would supplant Soviet socialist and U.S.-British capitalist modernity.

### ***The Integrated Discipline of Technology Studies***

Accompanying this new stage of modernity would be the newly independent discipline of Technology Studies, which would analyze the different political, cultural, and economic technologies from their unifying standpoint of praxis. As we saw above, technology for Aikawa is not just the objective mechanisms of a society; they are mechanisms and processes animated with subjective ideals, ethics, and creativity. As such, Technology Studies cannot be subsumed under the disciplines of economics, sociology, natural science, and engineering since these subordinate technology to their own particular disciplinary logics, according to Aikawa. For example, the natural sciences traditionally viewed technology as merely the instrumental

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<sup>119</sup> Ibid., 101.

<sup>120</sup> Ibid., 101.

<sup>121</sup> Gaonkar, 1-23.

application of scientific principles. Yet Aikawa shows how technology in fact helped shape the natural sciences. For example, the invention of time-keeping mechanisms, metallurgical technology, and the optical lens were important events for the establishment of the natural sciences.<sup>122</sup> Another example was economics, which often treated technology as a manipulable component of the economy. But again, Aikawa shows how technology often has a “progressive character” of proliferating uncontrollably throughout society and engendering even newer technologies in the process.<sup>123</sup> As a result, under capitalism technology has to be restricted and protected by the enterprise so as to not threaten its profits, as well as by the state so that the direction of technology might be controlled. In short technology has an uncontrollable element that cannot be reduced to the disciplinary logics of natural science and economics, for instance. This element is technology’s foundation in human practice and subjectivity in the world, which lends it an unpredictable, socio-historical character.

For Aikawa Technology Studies is a synthetic discipline that examines both the objective/mechanical and the subjective/social aspects of technology, its natural scientific and social scientific characteristics. It is a “border science” that incorporates all of the insight and techniques of both the natural and social sciences.<sup>124</sup> Its objects of study are the many political, cultural, and economic technologies that go into the construction of the “organic totality” or in Japan’s case, “the New Order.” One might argue that Aikawa’s technological vision of society actually requires the creation of a new discipline whose object of study was this very technological society in the same way that

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<sup>122</sup> Aikawa, “Gendai gijutsuron,” 128.

<sup>123</sup> Ibid., 232.

<sup>124</sup> Ibid., 227.

Aikawa points out how the establishment of capitalism laid the conditions for the formation of the social sciences whose object was the “social.”<sup>125</sup>

### ***Technology as Creativity and Imagination***

While the predominant ethic of Aikawa’s technological vision of society is one of productivity in all areas of life, he also emphasizes creativity, imagination, and transformation as well. Technology is not at odds with cultural and artistic activity, as was commonly assumed, but is a cultural, creative force in itself.<sup>126</sup> He writes

Transformation is imagination, and is a practice that can be carried out through intense human will and large-scale collective action. However, transformative practice is only first realized through technology. Although technology is originally practical and unthinkable without practice, practice is an empty word without technology.<sup>127</sup>

As we saw before, Aikawa always views “practice” as the specific technologies operating throughout all areas of life, which include cultural processes such as “artistic technology” and “intellectual technology.” Practice is not an ambiguous, general concept of “creative activity,” for instance. His insistence on the specificity and concreteness of practical activity leads him to criticize Miki Kiyoshi’s very vague definition of technology as any act of “making form.”<sup>128</sup> Technology as the many technologies of production throughout society is to him the most concrete way of viewing technology and society.

Moreover, for Aikawa, there is no contradiction between technology and culture. The word, “culture,” originates from the term, “cultivate,” or in other

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<sup>125</sup> See *Ibid.*, 155-201.

<sup>126</sup> *Ibid.*, 233-234.

<sup>127</sup> *Ibid.*, 244.

<sup>128</sup> *Ibid.*, 244. See Miki, 197-330.

words, agricultural activity.<sup>129</sup> Thus “culture” is not something vague like “spiritual activity” either, but actually has its origins in practice and production in a similar way that technology has its origins in *techne*, “text,” and “textiles.”<sup>130</sup> Furthermore, in modern times when technology began to permeate an entire society, it “was pushed to the forefront as something that regulates culture from its very foundation”—in short, an interpenetrating “technological culture” that complicated the assumed split between technology and culture began to appear.<sup>131</sup> He adds:

We can say that technology is a cultural force, and that it provides the most objective beacon of all the driving forces of culture. As such, modern culture was always ‘technological culture,’ and moreover, the technological character of modern culture appears more clearly in the present period of transformation. Since the period of transformation is the most active, dynamic period for social beings, it is also an epoch-making period of technological practice.<sup>132</sup>

Technology is not merely the material means of production but a dynamic cultural force of transformation imbuing all of human practice. The wartime period that would usher in the “New Order” was this period of transformation. Yet Aikawa also asserts that this period of transformation would not just be one of hyper-mobilized production throughout society, but also the formation of a “technological culture” of immense creative possibility.

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<sup>129</sup> Ibid., 245.

<sup>130</sup> Ibid., 245.

<sup>131</sup> Ibid., 246.

<sup>132</sup> Ibid., 246

### ***The Transformative Nature of the “Culture of Electricity”***

Aikawa proceeds to explore the transformative potential of mass media technologies and “electric culture” in opposition to those cultural pessimists who viewed technology as anathema to so-called authentic culture and art. In order to emphasize the transformative rather than merely productive nature of technology, he first analyzes the effects of electricity on economic production, which then immediately made itself felt throughout society. He lists four “forms of transformation” brought about by electrification, forms that “fundamentally reorganized the veins and nerves of private and state monopoly,” producing unexpected effects throughout culture.<sup>133</sup> First, electrification enabled factories to become mobile and no longer concentrated in large cities. Electrification made possible the diffusion of heavy industry into the countryside and villages, as well as the growth of agricultural industries.<sup>134</sup> This in turn facilitated the further incorporation of the people into the different technological mechanisms of society (e.g. the political, cultural, and economic processes outlined in Aikawa’s chart). Second, electrification helped bring about the “chemical revolution” in industry, enabling the creation of synthetic materials and the growth of the energy-intensive chemical industry. Synthetic ammonium sulfate, for example, eliminated dependence on natural fertilizers, which in turn increased food and livestock production. “From synthetic ammonium sulfate and synthetic fuel, cellulose pulp, cement building materials and synthetic stone...to synthetic rubber, fake leather, synthetic camphor, synthetic fats, synthetic butter, and so on, chemical technology shows us the way to make organic natural resources inorganic,” Aikawa writes.<sup>135</sup> For him the ability to

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<sup>133</sup> Ibid., 255.

<sup>134</sup> Ibid., 250.

<sup>135</sup> Ibid., 252.

manufacture synthetic materials most clearly illustrates the creative, transformative nature of technology. Aikawa sees the production of synthetic materials as the realization of an old Greek adage about technology: “Lack calls forth technology.”<sup>136</sup> Technology is not merely the instrumental employment of tools and machines on the natural world but the very creation of the “natural world” itself. Thus technology signifies creativity at its highest, and the spread of technology throughout life would only encourage human creativity.

The third “form of transformation” created by electricity was the revolution in transportation, in particular, the electrification of the railway.<sup>137</sup> This speeded up the transportation of goods and extended the reach of the state and capital. The development of the internal combustible engine was also important, facilitating the improvement of transportation technologies such as the airplane, automobile, and ships. The improvement of transportation technology brought people into more frequent contact than ever before, and formed the “nerves and veins” to create and incorporate the “New Order” that was to be the Japanese empire. Electricity’s fourth “form of transformation” was the development of wired and wireless communications technology. Telegraph and telephone technology was extended throughout the empire with the construction of cables. Aikawa was most hopeful about the spread of wireless technology such as “long-distance wireless telephones, radiophoto transmission, television, radio beacons, and so on.”<sup>138</sup> As we shall see in Chapter Three, he was most interested in the tremendous effect communications and mass media technologies had on human sensation. The

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<sup>136</sup> Ibid., 252.

<sup>137</sup> Ibid., 253.

<sup>138</sup> Ibid., 254.

“culture of electricity” formed the material basis of the new forms of mass-media culture.

### ***Conclusions on Aikawa’s Modern Theory of Technology***

Aikawa extends the meaning of technology to signify much more than the instrumental means for human beings to operate on the natural world. By infusing technology with a “practical nature,” he inextricably ties it to all types of social practice ranging from cultural production to policy formation to consumption. The social structure he and other intellectuals and bureaucrats envision consists of legislative technologies, cultural technologies, ethical technologies, economic technologies, and so on. All of these received their animating logic from production. Every technology plays a role in producing what was necessary to achieve the “New Order for East Asia.” This “order” would mobilize the resources and skills of a variety of people to solve the contradictions of capitalist modernity—colonial exploitation, class conflict, unemployment, lack of education, underdevelopment, alienation, and so on. Moreover, according to Aikawa, this technological community of production would stimulate tremendous cultural innovation and creativity through the beneficial effects of the “culture of electricity” and as we shall see, the proliferation of mass media technologies in everyday life. Thus not only would the technological society mobilize the plethora of skills of the people for production, it would maintain and encourage their creativity rather than suppress it.

In short, Aikawa provides the theoretical groundwork for a technocratic order of experts who would devise policies to incorporate and govern all aspects of life. He envisions Technology Studies as a synthetic discipline

incorporating the methodology of the social and natural sciences, whose objects of study were the different technologies constituting society. The new technocrat would not only be a specialist in a certain area such as engineering or economics, but would also take a holistic view of the society as well. Educational policy, financial policy, spiritual mobilization campaigns, natural resource forecasts, and so on would all be within the purview of the new technological expert. The people too would have their place in the order in accordance with their various skills, and in their capacity as active members of various institutions such as the factory, the party, the consumer cooperative, and so on. The proliferation of mass media technologies and new aesthetic forms would spread culture throughout the masses, and encourage popular imagination and creativity. Mass media technologies would also provide a way for the state to mobilize the popular imagination (more on these “cultural technologies” in Chapter Three). In sum technology served as a schema for envisioning all of the life processes of society, thereby creating it as an object of study, discipline, and expert intervention. Moreover, this idea of technology laid the groundwork for widespread state efforts to incorporate popular energies into the war effort and the long-term goal of constructing the “New Order.” By determining people’s positions within a dynamic system, absorbing some of the popular demands for expression and freedom, and promising an end to the contradictions of modern capitalist life, the “technological imaginary” sought to eliminate “the political” as the expansion of egalitarian demands by multiple politicized subjects, which threatened to transform the existing power relations.

#### IV. AIKAWA'S PHILOSOPHY OF TECHNOLOGY AT WORK: THE NEW ORDER OF SCIENCE AND TECHNOLOGY

##### *Outline for a New Order of Science and Technology*

As mentioned before, Aikawa applied his broad theory of technology to all areas of life—to culture, to the economy, to administration, and to social organization, for example. In order to obtain a sense of these applications then, let us look at some of his writings on the *Outline for a New Order of Science and Technology* (hereafter referred to as the *Outline*), of which he was a fierce proponent.<sup>139</sup> Adopted by the Cabinet in May 1941, the *Outline* called for the “establishment of a Japanese type of science and technology based on the autonomous resources of the Greater East Asian Co-Prosperity Sphere” by means of “activating the scientific spirit of the nation.”<sup>140</sup> It established the Technology Board (*Gijutsuin*), which had direct control over the funding and development plans of all of Japan’s research laboratories.<sup>141</sup> It nationalized patents to share technical knowledge among industry and controlled the allocation of engineers to essential state industries.<sup>142</sup> The Technology Board was also in charge of changing the education system to incorporate more technical education and practical training, as well as the establishment of social facilities to promote science and technology.<sup>143</sup> A Technology Deliberation Committee was established to set national policy on all matters related to science and technology.

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<sup>139</sup> For the *Outline*’s text, see Aikawa, “Gijutsu no seisaku to riron,” 160-164.

<sup>140</sup> *Ibid.*, 160.

<sup>141</sup> Morris-Suzuki, “The Technological Transformation,” 148.

<sup>142</sup> Aikawa, “Gijutsu no seisaku to riron,” 161.

<sup>143</sup> *Ibid.*, 162.

### ***The Three Stages of the New Order for Science and Technology***

While the *Outline* mostly emphasizes promoting technology as the material means to increase production for the war effort and to overcome the technology blockade, it nevertheless represented a concrete manifestation of the integrated view of technology as all of the creative forces and mechanisms that went into the formation of a new organic system.<sup>144</sup> For Aikawa, the *Outline* was only the first step to establish the society where technology permeates all of life in the form of rationality, creativity, and praxis. In his work linking his theory of technology to state policy on technology, *Theory and Policy of Technology*, Aikawa notes that while the *Outline* was strong on state centralization and control of technical research, it was weak on mobilizing the people and promoting technological values in everyday life.<sup>145</sup> As we saw before, Aikawa views technology as more than machines and tools, but as incorporating a social and practical/spiritual element as well. For him the *Outline* had taken the first step of imposing unified control over technology by establishing the Technology Board as “the nerve center of the entire system of science and technology;” however, it needed to advance to the “second stage” of organizing scientists, engineers, and skilled workers into smaller “vocational organizations of science and technology” (*kagaku gijutsu no shokunō dantai*).<sup>146</sup> These organizations would encourage efficiency, promote creativity and invention, increase cooperative participation, and instill a sense of mission

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<sup>144</sup> For a detailed history of the movement to establish the New Order for Science and Technology, see Ōyodo, “Miyamoto Takenosuke,” 302-467. Of course, there was much resistance from other government ministries and business as well, thereby taking away some of the *Outline*’s effectiveness. See Sawai, “Taiheiyō sensō ki kagaku gijutsu seisaku no hito koma,” and Morris-Suzuki, “The Technological Transformation,” 149.

<sup>145</sup> Aikawa, “Gijutsu no seisaku to riron,” 144.

<sup>146</sup> *Ibid.*, 135.

and responsibility among technical workers.<sup>147</sup> Only through such organizations would technology become more than dead machines and realize its true “Japanese” essence of rationality, praxis, and creativity.<sup>148</sup> These smaller organizations would form the “practical subjective conditions” and the “muscle and bones” of the New Order for Science and Technology.<sup>149</sup> In sum the first stage would establish a central state institution that oversees and plans the entire new order, while the second stage would form technical organizations that “operationalize” state directives on the ground in a way that would still preserve creativity, spontaneity, and innovation. Mobilization through such corporatist organizations would finally lead to the “third stage,” which he calls, “making national life scientific” (*kokumin seikatsu no kagakuka*).<sup>150</sup> This stage does not just entail general campaigns to eliminate superstition in everyday life, but also introducing more scientific and technical training in secondary schools and community centers, and more skills training for workers, for example.<sup>151</sup> Only then would “technological practice” really take root among the people by bringing them closer to advanced technology. The ultimate goal for Aikawa was to spread this integrated system of “Japanese technology” not just among the Japanese but also to all members of the “East Asian League” (*Tôa renmei*), an envisioned equal alliance

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<sup>147</sup> Ibid., 223-224.

<sup>148</sup> Ibid., 127-133. In this work, Aikawa begins to define his “modern theory of technology” as a particularly “Japanese” or Asian theory of technology in opposition to Western capitalist notions of technology. Yet at the same time, his theories still had universalist implications since they sought to create a new technological society throughout Asia and much of the world.

<sup>149</sup> Ibid., 135, 146.

<sup>150</sup> Ibid., 142.

<sup>151</sup> Ibid., 142, 143.

consisting of China, Manchuria and Japan, which included Taiwan and Korea.<sup>152</sup>

### ***Hitachi Manufacturing as Model***

For Aikawa the workplace organizations at several Hitachi Manufacturing factories in Ibaraki Prefecture served as concrete models of “vocational organizations of science and technology” that would become the mobilized units on the ground for the New Order of Science and Technology.<sup>153</sup> He spent one month visiting Hitachi plants in the Toga-Hitachi area in 1941 to help write the film scenario for *The Present Battle*.<sup>154</sup> He published a report of his visit in the Japan Technology Association’s journal, *Technology Review*, in September 1941. The factories provided a concrete model of the type of mobilization that the New Order should strive for, according to Aikawa—management emphasized the importance of technology and technical methods of administration; innovation was promoted from top to bottom; worker creativity was respected and encouraged; and significant investment was put into research, training, and welfare facilities for the workers.<sup>155</sup> Apparently Morikawa Kakuzô, head of the Cabinet Planning Board’s Technology Section and principal drafter of the *Outline*, visited the

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<sup>152</sup> Aikawa, “Hatsumei no soshiki genri” (The Organizational Principle of Invention), *Tôa Renmei* [East Asian League], (Sept. 1941):67. The East Asian League was an organization established by the Kwantung Army officer, Ishiwara Kanji, who was famous for instigating the “Manchurian Incident” in 1931 that led to the Japanese invasion of Manchuria. Ishiwara was against expanding beyond northern and central China, and he argued for a strong, autarkic “Japan-Manchuria-China bloc” of formally equal nations. The East Asian League had branches in many of the major cities of northern China and Manchuria, and all over Japan. Chinese, Manchurian, and Korean leaders also participated in its activities such as the establishment of the Concordia Society, a mass-based party promoting Asianist ethnic harmony.

<sup>153</sup> *Ibid.*, 234.

<sup>154</sup> *Ibid.*, More on this later.

<sup>155</sup> *Ibid.*, 235.

plants several times and viewed them as models for the New Order as well.<sup>156</sup> For Aikawa only the type of mobilization on the ground that he saw at Hitachi could truly bring out the practical, creative nature of technology.

Hitachi was Japan's response to the global monopolization of heavy electric machinery technology by Siemens and General Electric.<sup>157</sup> Its fortunes turned for the better with the beginning of intensive colonization of Manchuria and China in 1931. By 1941 it was a "living model of the New Order for Science and Technology," ballooning into a huge heavy industrial concern capitalized at 350 million yen.<sup>158</sup> Hitachi was renowned for stressing "production over profit" and for being "worksite oriented" rather than "office oriented."<sup>159</sup> It was an interconnected complex of manufacturing sites, research facilities, test and training factories, schools, worker housing, and amusement facilities.<sup>160</sup> From its production of high technology to its integrated technical organization, Hitachi represented the cutting edge of technology in all of its senses in Japan.

The central component of the "Hitachi spirit" of technology was the invention incentive system that resulted in the creation of 838 patents, 3239 "applied ideas," and numerous world-class water turbines and engines.<sup>161</sup> According to Aikawa, the upper management and engineers at Hitachi had a systematic policy of guiding, encouraging, and crediting workers for their ideas and inventions.<sup>162</sup> Over thirty ideas and designs per month were announced

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<sup>156</sup> Ibid., 234.

<sup>157</sup> Aikawa, "Hitachi seisakusho Hitachi kôjô: Kôjô kengakuki – hatsumei hôshôsei no moderu" [Hitachi Factory, Hitachi Manufacturing: Record of a Study Tour to a Factory—A Model for an Invention Incentive System], *Gijutsu hyôron*, (Sept. 1941):43.

<sup>158</sup> Ibid., 45.

<sup>159</sup> Ibid., 43.

<sup>160</sup> It even boasted a golf course and retreat in Kamakura for upper management. Ibid., 43.

<sup>161</sup> Ibid., 44. Aikawa, "Gijutsu no seisaku to riron," 235.

<sup>162</sup> Aikawa, "Hatsumei hôshôsei no moderu," 44.

on the factory bulletin board, and three hundred invention prizes and ten thousand letters of recognition were awarded each year.<sup>163</sup> Cash bonuses were given to male and female workers for inventions, with further bonuses awarded after three years, if the invention was still profitable.<sup>164</sup> Inventions were not necessarily the product of education and genius, according to Aikawa, but arose through praxis and everyday interaction with technology, as well as cooperation with other workers on the factory floor.<sup>165</sup> Examples of inventions included an automatic hammer installed from the ceiling for hammering hundreds of thin sheets together or a special device for the planer to finish the precise wings of a turbine's water wheel.<sup>166</sup> Creativity and innovation also extended to finding ways to save materials and eliminate waste. The introduction of an invention incentive system encouraged the creation of a "progressive," cooperative culture of technology that respected and appreciated worker creativity and action.<sup>167</sup> In fact such a system helped bring out the true spirit of technology as practical, imaginative, and social. The technological division of labor would no longer determine the organization of workers as in capitalism but rather, worker mobilization would bring out a more dynamic, non-alienating sense of technology as creativity and praxis.<sup>168</sup> Such a technical organization of work was more effective than "bureaucratism" and a "system of policing" from above, argues Aikawa.<sup>169</sup>

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<sup>163</sup> Aikawa, "Gijutsu no seisaku to riron," 235.

<sup>164</sup> Ibid., 236.

<sup>165</sup> Ibid., 238.

<sup>166</sup> Ibid..

<sup>167</sup> Ibid., 236.

<sup>168</sup> Aikawa, "Hatsumei hôshôsei no moderu," 44.

<sup>169</sup> Aikawa, "Gijutsu no seisaku to riron," 237.

### ***Workplace Associations as the Nucleus of the New Order***

Aikawa visited the Hitachi factories once more in 1942 to do more research for the filming of *The Present Battle*. He published his observations in March 1942, again in *Technology Review*.<sup>170</sup> This time he analyzed the workplace assemblies (*shokuba jōkai*) that were the nucleus of Hitachi's organizational system and the inculcation of the "technological spirit" of rationality, creativity, and praxis.<sup>171</sup> He studied the assembly newspapers and introduced the reader to many worker initiatives to improve efficiency, productivity, and factory life in general. After several months of these meetings, workers apparently began to spontaneously look for waste of materials, time, and work. They set targets to eliminate waste each month. They also set objectives for reducing the number of defective products and rewarded people for attaining them. All kinds of innovations such as new machine tools, methods of work, or designs; transfer of technology from one section to another; and discovery of mistakes would receive an award and bonus, and the person's name would be announced.<sup>172</sup> In sum the management technique of introducing worker assemblies seemed to have the desired effect of increasing worker responsibility and cooperation without primarily resorting to top-down, autocratic measures.<sup>173</sup>

Aikawa also re-introduces the readers to a certain Mr. Shidama, head of worker education for Hitachi, and one of the people who came up with the

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<sup>170</sup> Aikawa, "Hitachi kōjō kengakuki" (Record of Study Tour of the Hitachi Factory), *Gijutsu hyōron*, (March 1942):40-45.

<sup>171</sup> All of these institutions were concrete manifestations of the "technological spirit" running throughout Hitachi. Aikawa, "Hatsumei hōshōsei no moderu," 43.

<sup>172</sup> *Ibid.*, 40-41.

<sup>173</sup> Autocratic management continued to prevail, however, especially as the war progressed and workers were pushed to the limit. Also, the situation of workers in small to medium size industries was quite bad, and not comparable to Hitachi.

invention inventive system.<sup>174</sup> Aikawa was very impressed by Shidama's "humanistic view of technology."<sup>175</sup> For Shidama technology was not "great inventions" that arose through genius but rather the small improvements on the factory floor that made work life better and easier.<sup>176</sup> New technologies such as work techniques, organizational methods, and machine tools arose through collective work and practice, not individual genius.<sup>177</sup> They were produced in the messy world of the technician whose "life stage" was tangled electric wires with thousands of volts coursing through them, unstable cranes swinging inches from people's heads, the sound of riveting, bursts of dust and sparks, and the smell of burnt lubricant (as opposed to the refined "life stage" of intellectuals such as Aikawa).<sup>178</sup> In short technical creativity and invention arose in messy everyday praxis with other people and things. A "humanistic view of technology," in other words, viewed technology as always embedded in everyday activity and work where there is usually no clear-cut distinction between subject and object, spirit and matter. This dynamic and unpredictable "life stage" was the foundation of technology's creative nature.

For Aikawa the New Order for Science and Technology was not simply about increasing production of war materials or inventing better military technology. Rather it was more about developing a "Japanese" and "Asian" sense of technology as creative activity, transformative praxis, spiritual mobilization, cooperation, and rational planning. This sense of technology would be different from the so-called Western capitalist sense of technology as

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<sup>174</sup> Mr. Shidama appeared in the previous article. Aikawa, "Hatsumei hōshōsei no moderu," 45.

<sup>175</sup> Ibid., 41.

<sup>176</sup> Ibid., 41.

<sup>177</sup> Ibid., 41.

<sup>178</sup> Ibid., 42.

simply the material means of production for profit. The sense of Japanese technology would instead take root at the level of everyday work and life. Technical imagination, for example, would be promoted in workplace associations and the smallest innovation would be recognized and rewarded. Responsibility and cooperation would be encouraged through regular meetings, setting of competitive targets, and rewards. In short the very meaning of technology would change from being the oppressive, alien means of production owned by the capitalist to a creative, progressive force that was firmly rooted in the lives of the workers and people. Only then would the New Order for Science and Technology be truly realized.

### ***The New Economic Order***

The New Order for Science and Technology was closely related to the New Order for Industry, which aimed to reorganize industry and particularly management. The core part of the reform was the establishment of “Control Associations” (*tôseikai*) for each industrial area. On September 28, 1940, the Cabinet Planning Board announced the “Outline Summary for the Establishment of an Economic New Order,” which officially extricated firms from the control of capital and made them members of a “National Production Cooperative Body.” In this way production would become more in line with state goals rather than the goals of capital. Reforms included “restrictions on the establishment, reorganization, and liquidation of firms, the granting of public status to managers, control of dividends, reform of the compensation system to encourage production and the establishment of a performance-based rewards system, and reorganization of small and medium-sized

companies to improve overall efficiency of production.”<sup>179</sup> These “production cooperative bodies” (later called “control associations”) were organized according to business type, and they exerted considerable control over member firms. They were “in charge of executing state plans by determining allocation of production to member firms and ensuring that production targets were met.”<sup>180</sup> They could rationalize management, determine prices, and approve leadership appointments as well.<sup>181</sup> This law was the key component of a series of laws and “New Orders” that sought to reign in the capitalist market economy in Japan and establish a planned economy based on corporatism and vocation.

Aikawa supported the above arrangement of industry by business type; however, he urged for a more integrated organization of industry by technological process. Instead of merely arranging industries by product or material, they should be organized by the type of technological process of production in use (e.g. chemical or mechanical process). He presents his integrated technological map of the economy in *Theory and Policy of Technology*.<sup>182</sup> In this map there are control associations for all aspects of the economy: distribution, commerce, communications, transport, finance, and industry. Industries are classified based on type of chemical technological process (e.g. heavy machinery, oil refining, synthetic fibers, and fertilizer industries) and mechanical technological process (e.g. consumer goods, textile industries). He calls the particular makeup of this integrated system of technology, the “technological constitution” of a society.<sup>183</sup> Arranging the

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<sup>179</sup> Mimura, “Technocratic Visions of Empire,” 291.

<sup>180</sup> Ibid., 292.

<sup>181</sup> Ibid.

<sup>182</sup> Aikawa, “Gijutsu no seisaku to riron,” 189.

<sup>183</sup> Ibid., 152.

economy according to technological process would make the economy more dynamic, according to Aikawa, since industries would be organized more in terms of *how* they realize certain objectives such as efficiency and increased production.<sup>184</sup> Liberal capitalism merely focuses on *what* is produced, thereby de-emphasizing other factors such as management, research, workplace organization, and training. By emphasizing the *how* of production, not only would wartime production goals be met but technical values of rationality, creativity, and praxis would spread as well, resulting in a more dynamic transformation of society.

While control associations would allocate production goals and determine prices, they ideally would not infringe on the independence, creativity, and regional character of the participating industries. There would be a balance between “guidance” and “voluntary cooperation,” according to Aikawa.<sup>185</sup> There would not be a “national economic council” like in Germany, and regional control associations that took local conditions into account would concurrently exist.<sup>186</sup> Moreover these regional associations would assert the interests of small to medium business, which constituted most of the Japanese economy.<sup>187</sup> Thus similar to Aikawa’s diagram of society as an integrated network of specific technologies unified beneath the organic principle of production, the integrated network of control associations would unite under state objectives. The particular needs of regions and small businesses would be respected and encouraged, while total state production goals would be

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<sup>184</sup> Ibid., 186.

<sup>185</sup> Ibid., 171.

<sup>186</sup> Ibid.

<sup>187</sup> Ibid., 172.

realized at the same time. The particular would merge with the needs of the totality without significantly affecting the particular.

The new technician or skilled worker would be the central figure of this new technical economy, according to Aikawa, since he or she could truly embody the practical and social nature of technology.<sup>188</sup> “Their merit lies in *intellectual praxis* rather than practical knowledge,” Aikawa writes, emphasizing the equal combination of spiritual and practical elements within “technological practice.”<sup>189</sup> Technology was not just narrowly practical but also infused with a social vision. Moreover while technological practice was rational and scientific, it also included a creative, “prayer-like” moment most apparent in the process of invention.<sup>190</sup> The “formative praxis” of technology always strives to go beyond itself towards new possibilities.<sup>191</sup> One of the keys to the New Orders of the economy and technology then was to fully display both the rational and irrational forces of technology, its systematic and organized character, as well as its imaginative and contingent one. This would be achieved primarily through the “vocational organizations of science and technology” described above, which would also be the primary locus of identity for the worker. By fully exhibiting the rational and creative powers of technology, technicians and skilled workers would lead the way in overcoming capitalism, which enslaved workers to the machine and dampened creativity through the patent system and the need to always maximize profit.<sup>192</sup>

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<sup>188</sup> Ibid., 217.

<sup>189</sup> Ibid.

<sup>190</sup> Ibid., 220.

<sup>191</sup> Ibid.

<sup>192</sup> Ibid., 222.

### ***The New Orders within Aikawa's Larger Philosophy of Technology***

The New Orders for Industry and Science and Technology represented some of the key components of the broader idea of technology as cooperation, creativity, and praxis advocated by Aikawa and others. Vocational organizations of science and technology along the lines of the workplace associations at Hitachi would be organized to mobilize worker creativity and encourage cooperation and self-discipline. Technology would be firmly rooted in the lives of the workers, not the boardroom of the capitalist. Industries would be taken away from the control of shareholders and organized into "production cooperative bodies" or control associations, thereby enabling firms to focus on industrial organization, research, investment, and training, instead of just the profit margin. The economy as a whole would be reorganized by technical process and function, creating an integrated network of technologies, as well as an overall focus on *how* to encourage productivity, efficiency, innovation, and rational organization, rather than solely on *what* the economy was producing. Technical values, process, change, and social vision would be emphasized, not just the incessant churning out of goods for the market. Workers would become more skilled, and identify themselves primarily through their vocation and vocational organization, creating a corporatist society rather than an individualist, competitive one. In sum, technology as a dynamic ethic of creativity, praxis, and cooperation that saturated everyday life would be achieved by fully pursuing and intensifying the dictates of the Outlines for the New Orders for Industry and Science and Technology.

## V. CONCLUSION

The 1930s and 1940s in Japan are often believed to represent the apex of anti-modernity and anti-rationality in comparison to the program of rapid modernization during the post-war period. Yet as the fascination with technology by Japanese bureaucratic and intellectual leaders like Aikawa shows, this was farther from the truth. Technology, one of the primary foundations of modernization, was widely embraced by Japanese elites, who actively developed its meaning and used it as a way to imagine and shape society. For Aikawa and other technocrats, technology was not just a matter of assembly lines, engines, bridges, railroads, and telephones. Technology had to do with the very production and reproduction of society itself. Administrative technologies produced efficient bureaucracies and businesses. Hygiene technologies produced clean cities and healthy citizens. Education technologies produced patriotic citizens and skilled workers. Communications technologies produced telegraph and telephone networks. Artistic technologies produced mass movies, music, and literature. In short, every area of human life was to be mobilized through its very own dynamic technology. The end result of this smooth operation of multiple technologies would be the end of all forms of political struggle to fundamentally transform relations of subordination—the practical, creative energies of the people would instead be directed towards establishing and consolidating the Japanese empire.

This technological vision of society justified the creation of a technocratic order of experts who devised policies to incorporate and govern all aspects of life. Such totalitarianism not only manifested itself as repressive fanaticism and brute violence, but also as the mobilization of human creativity,

spontaneity, and difference to the extent that these never threatened the existing power relations. Technology became a way for power to operate productively instead of just repressively. It became associated with the project of “constructing” a new society without the social conflict, alienation, and exploitation characteristic of modernity. Japanese elites asserted that technology’s nature was fundamentally practical, concrete, and creative. By proliferating this logic of technology throughout all areas of life through social policy, life itself would supposedly become more concrete and creative as well. For example, as Aikawa illustrated, the management technology of introducing workplace assemblies would help encourage innovation and create a sense of fulfillment and participation. The economic technology of creating industrial groups or control associations based on technological process and function instead of industrial product would generate more advanced industries, and therefore a more educated and prosperous nation. Moreover, technology for Aikawa was not just something present in the economy and factory but permeated mass culture as well. New cultural technologies of mass print, radio, and film would help generate a mass sensation, as well as new avenues for creative expression. Aikawa was very interested in the question of how technology permeated and changed human sensation, especially in how mass media technologies could effectively stimulate and mobilize the creative energies of the people for the war effort. As we shall see in the next chapter, he devotes much energy to supplementing his overall philosophy of technology with a theory of “cultural technology” through analyzing and actually producing documentary film.

**CHAPTER THREE**  
**CULTURAL TECHNOLOGIES OF MOBILIZATION: AIKAWA HARUKI AND**  
**THE WARTIME “CULTURE FILM”**

**I. INTRODUCTION**

***Aikawa’s Theory of Cultural Technology***

In the 1940s Aikawa was particularly interested in the technology of film and mass media. These cultural technologies could not easily be pinned down narrowly as “objective means of production” because they involved the production of immaterial images and the formation of human feeling and sensation. The very process of employing and consuming cultural technology such as the camera to produce an image fundamentally involved a mass subjective, emotive element that could not simply be reduced to being an instrumental means to achieve a fixed goal. In the context of the war, Aikawa focused his attention on the *bunka eiga* (culture film). This was the designated term for the documentary film, and it referred to state mandated propaganda films on everything from the importance of arts and crafts for young children to hygiene campaigns for wiping out leprosy to the hard work of factory workers producing engines for the war. With the Film Law of 1939, which imposed state control over the film industry and made the showing of *bunka eiga* compulsory, there was an explosion of documentary films.<sup>1</sup> The *bunka eiga* became an art form and the subject of innumerable articles, critical reviews, and study groups. For Aikawa the *bunka eiga* was the premiere aesthetic form of the era. They fascinated him because the production of these

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<sup>1</sup> Mark Nornes calls this the “the golden age of the Japanese documentary, a golden age with a dark horizon.” Nornes, 63.

documentary films was not just a process of objectively portraying the outside world but rather a complicated fusion of aesthetics and advanced technology involving the cooperation of many people, resulting in a kind of technological aesthetics or sensation. Cinematic production compounded any simple dichotomy of culture and science/technology but rather fused the two. Moreover, film technology radically transformed human sensation into a mass, collective sensation, thereby showing immense possibility to instigate people towards social change. Mass media technologies were inextricably tied up with the subjective makeup of the people. Thus in his cultural writings, Aikawa was forced to reopen the question of delineating subjectivity and technology, a question he answered earlier in terms of a clear division between subject and object, human goals and instrumental means.

In 1936 Walter Benjamin also examined the aesthetics of cinema and its revolutionary effects on mass sensation in his famous essay, "The Work of Art in the Age of Mechanical Reproduction." Similar to Aikawa, he noted the technologically mediated character of cinematic reality. The cinematic image presented to the spectator is the result of the "thoroughgoing permeation of reality with mechanical equipment" and "extraneous accessories" such as "camera equipment, lighting machinery, staff assistants, etc."<sup>2</sup> The image was no longer the subjective, "magical" portrayal of an external reality as in painting, but the product of the "surgical" operations of the cameraman.<sup>3</sup> Like Aikawa also, he described the camera's more precise, scientific capture of human behavior, for example, which allows people to analyze things that they would not normally notice with the naked eye. "The muscle of a body" on the

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<sup>2</sup> Benjamin, 233, 234.

<sup>3</sup> Ibid., 233.

screen, for example, is fascinating both from an artistic and a scientific viewpoint, according to Benjamin.<sup>4</sup> He adds, “To demonstrate the identity of the artistic and scientific uses of photography which heretofore usually were separated will be one of the revolutionary functions of the film.”<sup>5</sup>

Finally, similar to Aikawa, Benjamin was also fascinated with the “shock effect of the film,” which painting kept “under wrappers,” and “the greatly increased mass of participants,” which has changed their “mode of participation” in art.<sup>6</sup> In the end, however, while both thinkers noted strikingly similar aspects in the mass technologies of film and their potential for mass revolution, their goals were radically different—communism for Benjamin and a fascist “organic totality” for Aikawa. This chapter will consider some of the ways that Aikawa sought to harness the creative potential of cultural technologies for the purpose of establishing the New East Asian Order beyond communism and capitalism. Benjamin’s thesis of the fascist employment of cinematic technology as giving the masses an avenue for collective expression without addressing the relations of class and power is germane for my argument.<sup>7</sup> Expanding on his argument I shall demonstrate some of the specific cinematic techniques that Aikawa and his fellow filmmakers developed and used to incorporate freedom, creative expression, and mass participation.

In Chapter Two I examined Aikawa’s broad theory of technology as the various societal processes of production and transformation, and the economic and political aspects of his theory within his vision of the “New Order of Science and Technology. In this chapter, however, I will specifically look at

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<sup>4</sup> Ibid., 236.

<sup>5</sup> Ibid.

<sup>6</sup> Ibid., 238, 239.

<sup>7</sup> Ibid., 241.

his work on cultural technology, an area where we can again clearly see Aikawa's broader sense of subjective technology at work. I will analyze his writings on the potential of "reproductive art," and his 1944 work, *Theory of the Culture Film*, which is one of the few theoretical treatments of the documentary film in Japan at the time. Here he explores specific film techniques for motivating citizens and subjects to actively cooperate with the creation of a modern, technologically advanced community in East Asia. I will also examine the film, *The Present Battle* (1942), a *bunka eiga* produced by Geijutsu Eigasha (GES) on the situation of an electric generator plant during the war.<sup>8</sup> Aikawa was involved in the production of this film, and he discusses various techniques and problems that occurred during its making. Thus in this chapter I would like to demonstrate an instance of Aikawa's theory of technology at work in the arena of cultural production and spiritual mobilization.

## II. TECHNOLOGICAL CULTURE

### ***The Potential of Mass Media Technologies: Reproductive Art***

After analyzing the spread of electricity as one of the material conditions behind the emergence of "technological culture" in *Modern Theory of Technology*, Aikawa begins to examine some of the immense possibilities of cultural technology such as film, radio, and mass print. According to him the main characteristic of technological culture was the predominance of "reproductive art" (*fukusei geijutsu*).<sup>9</sup> Radio culture has replaced the culture of prose and poetry, film has overtaken theater, photography has challenged

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<sup>8</sup> Unfortunately, the film no longer exists; however, the script, some stills, and various analyses remain.

<sup>9</sup> Aikawa, "Gendai gijutsuron," 260.

painting, and the record has replaced the live symphony orchestra.<sup>10</sup> However, similar to Benjamin, instead of romantically lamenting the decline of classical culture and the replacement of “originality” with an inferior “reproduction,” Aikawa praises the “originality” of the “new genres of mechanical reproductive art.”<sup>11</sup> In particular these new genres possess a “popular mass nature” and a “circulatory character that can bring art closer to the mass psyche.”<sup>12</sup> Art was no longer restricted by place or limited to the church or palace.<sup>13</sup>

Moreover, mechanical reproductive art emphasized artistic form more than the content, which in turn created new possibilities for content, according to Aikawa. He bemoans the fact that many artists are unable to take advantage of the new technologies to create new art, and are stuck in their old romantic, individualistic ways. “The artistic activity of writers not only presupposes a supportive thought and knowledge that are merged with the fires of practical passion; it is realized through methods, processes, and technologies that formalize the world of the artwork after working on and describing the particular chosen objective reality,” Aikawa writes.<sup>14</sup> Art is not “genius” or spiritual creativity but the employment of specific methods, processes, and techniques of mass “expressive technologies” (*hyôgen gijutsu*), having a “multitude of rich forms” such as film, radio, records, and photography.<sup>15</sup> “New sake for a new flask,” Aikawa implores the artists.<sup>16</sup> For

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<sup>10</sup> Ibid., 259-260.

<sup>11</sup> Ibid., 260.

<sup>12</sup> Ibid., 272. Elsewhere, he refers to the “mass receptiveness of reproductive technology.” Ibid., 260.

<sup>13</sup> Ibid., 272. According to Benjamin, the “aura” of the original artwork withers in the age of mechanical reproduction. See Benjamin, 221.

<sup>14</sup> Ibid., 263.

<sup>15</sup> Ibid., 264.

<sup>16</sup> Ibid., 277.

Aikawa, reproductive art does not degrade artistic content but enriches and multiplies its possibilities.

### ***The Potential of Mass Media Technologies: Film***

Film was a prime example of the new potential of mechanical reproductive art. “Not only has film produced a form with mass transmissibility, it has begun to develop a dynamic potential to express the sensuous content of a new age,” Aikawa writes.<sup>17</sup> The very production of the film embodies the mass nature of the medium. It is an immense process of production synthesizing “literary elements (scenario), theatrical and aesthetic elements (filming), and musical elements (recording) for reproduction onto the screen through movie projectors and sound mechanisms,” Aikawa writes.<sup>18</sup> The innovations in artistic form made possible by the film also created new content. For example, while films like Charlie Chaplain’s *Modern Times* (1936) did not go beyond a romantic caricaturing of industrial rationalization and technology as dehumanizing and therefore suppressive of art, Disney animations like *Popeye* went beyond the old “technology vs. art” dichotomy to create new technological sensations, according to Aikawa.<sup>19</sup> He writes of *Popeye*:

Among Popeye’s unusual powers are a winding motor, the destructive force of a cannonball, and a heart like a continuous electric engine. His astounding activity represents a burst of mechanical energy, and the music emits a metallic dissonance. Why does the conception of Popeye completely match the dynamic optical technology that supports its cinematic form; moreover, why is it strangely accompanied by a sense of reality and freshness? Perhaps if this metallic and optical

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<sup>17</sup> Ibid., 276.

<sup>18</sup> Ibid., 276.

<sup>19</sup> Ibid., 276-277.

sensation aesthetically unites with real image content, the aesthetic character of film is further developed.<sup>20</sup>

Classical art forms such as music and poetry that assumed a split between culture and technology, spirit and matter could not yet achieve such an aesthetic fusion of technology and life, which Aikawa calls a “fresh modern sensation.”<sup>21</sup> Instead of spiritual alienation, he feels dynamism, power, energy, and life in the saturation of society by technology. The new mechanical reproductive technologies of art would bring about a renaissance in creativity and innovation. Their mass transmissibility and potential for stimulating new sensations should be actively embraced and developed by artists instead of rejected in favor of a romantic past.<sup>22</sup>

### ***The Relation Between Culture and Technology***

Thus in modern society, culture/art is not the polar opposite of technology. Yet culture is not simply in an amorphous fusion with technology either. As we saw before, technology for Aikawa is a combination of clearly identifiable objective means *and* goal-oriented ideals—the “matter” is always infused with some conceptuality or ethical imperative. He writes the following about the relation between technology and art:

Technology and art are on opposite poles but not as two poles on a horizontal plane where one pole is the material and the other the spiritual—rather, technology forms something like the *base* and *edges* of a *three-dimensional cultural structure*. Moreover, technology today, which has silently built itself amidst the base, has shaken the spiritual

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<sup>20</sup> Ibid., 277.

<sup>21</sup> Ibid., 277.

<sup>22</sup> Ibid., 278-279.

throne of art at the top, to the point where even aesthetic purists agree that technology is on the rise.<sup>23</sup>

Aikawa seeks a middle ground between the romantic view of technology as opposed to art and the technologist/futurist view of technology and art fusing into an indistinguishable whole. As we saw before, practice unifies matter and spirit into an organic whole. In technology the material and spiritual moments may be identified but they do not have distinct realities within the varied technological processes of life. Thus technology and art have a living, “three-dimensional” structure, with technology forming the “base and edges” of all kinds of artistic activity. Technology and art form concrete three-dimensional “complexes” in which neither is truly determinative. For example, cinema is a lively composite of different sensations and ideals. At the same time, it has a material “base and edges,” which constitute the camera film, the camera, the sound equipment, the studio, studio workers, etc. Together they form a specific “three-dimensional cultural structure.” In his later works on documentary film, Aikawa would explore the issue of the cinematic form more closely, particularly this issue of what constitutes subjective and objective elements of film, and how they interact with each other in a complicated manner—creating a reality thoroughly permeated with mechanical equipment and a the “surgical” operations of a specialized studio staff, as Benjamin would describe it. For cinema and other forms of mass media reworked this relation between subjectivity and objectivity, and even threw it open to question.

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<sup>23</sup> Ibid.,275.

### III. AIKAWA'S THEORY OF THE CULTURE FILM

#### *The Rise of the Culture Film or Bunka Eiga*

Filmmakers and critics during the wartime regarded the documentary film or *bunka eiga* ("culture film") as the preeminent aesthetic form of the period. Even theatrical or fiction films (*geki eiga*) began to take on a realistic documentary style and quality.<sup>24</sup> Mark Nornes writes:

In the largest scheme of things, documentary has always been conceptualized as peripheral to the feature film's center. However, by the end of the 1930s it would be more appropriate to conceptualize fiction and nonfiction as two overlapping spheres with constant flux between them. With respect to the conventions of representation, the feature film/documentary hierarchy appears inverted in the late 1930s and early 1940s. Indeed, it is tempting to place the feature fiction film in the peripheral position.<sup>25</sup>

As we shall see later, documentary films also incorporated theatrical forms and techniques, creating the genre of the *bunka eiga*. This blurring of genres was caused by a number of factors. The Film Law of 1939, which established the "New Order for Cinema," created a film inspection system and enforced the showing of a minimum of 250 meters of nonfiction film in any movie program.<sup>26</sup> Documentaries also frequently escaped the censorship laws since they often did not have scenarios, thereby making their production easier. State inspection fees were even waived for nonfiction films further encouraging their production. Such state promotion of *bunka eiga* led to an

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<sup>24</sup> For examples of feature films with a documentary aesthetic, see Kurosawa Akira's *The Most Beautiful* (*Ichiban utsukushiku*, 1944) and his mentor, Yamamoto Kajirō's *The War at Sea from Hawaii to Malaya* (*Hawai, Marē okikaisen*, 1942).

<sup>25</sup> Nornes, 95.

<sup>26</sup> *Ibid.*, 63.

explosion of documentary films, with the Ministry of Education approving 4.460 documentaries in 1940 alone.<sup>27</sup> Thus documentary film styles quickly made themselves felt throughout the film world. In addition to state promotion, the historical exigencies of the war and battlefield, audience popularity, and increased attention by film critics also contributed to the spread of the documentary film form, and the resulting preeminence of the documentary aesthetic.

The term *bunka eiga* originally came from the import of *Kulturfilme* produced by the German film giant UFA beginning in 1930. These were originally films describing the achievements and processes of modern science and technology.<sup>28</sup> The Ministry of Education, however, soon began using the term *bunka eiga* to refer to all documentary films produced in Japan.<sup>29</sup> With the beginning of the war, *bunka eiga* took on more nationalistic overtones, designating propaganda films that would serve to “enlighten,” “modernize,” and mobilize the people for the war effort and the imperial enterprise. Films ranged from describing the spiritual vigor of elite air force pilot trainees (*Young Soldiers of the Sky*, *Sora no shōnenhei*, 1942) to portraying the rural poverty and cooperative spirit of peasants in northern Japan (*Snow Country*, *Yukiguni*, 1939) to capturing the lives of railway workers on steam locomotives (*Train C-57*, *Kikansha C57*, 1941).<sup>30</sup> The term *bunka* (culture) in *bunka eiga* came to have multiple meanings depending on the particular film. Almost all had nationalist overtones of valuing discipline, cooperation, self-sacrifice, and hard work. Many films celebrated the trappings of modern technology—the factory,

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<sup>27</sup> Ibid., 63.

<sup>28</sup> Aikawa, “Bunka eigarōn,” 16.

<sup>29</sup> Nornes, 6.

<sup>30</sup> All of these are located at the Yamagata International Documentary Film Festival Office in Tokyo.

the machine, cooperative management techniques, and innovation. Many sought to portray the superstitious and “modern” customs and beliefs of the people. For Aikawa, however, the *bunka eiga* was at the vanguard of representing all aspects of modern technological society and of mobilizing people to construct a new “technological culture” throughout Japan and East Asia.

### ***Aikawa’s Theory of the Culture Film as an Extension of his Theory of Technology***

“My theory of the *bunka eiga*,” Aikawa writes in *Theory of the Culture Film*, “is concerned with providing a broad cultural foundation to my theory of technology. The fundamental problem of the ‘in between’ (*aida*) of science and art constitutes an important question at the background to a theory of technology.”<sup>31</sup> The *bunka eiga* is in fact a concrete instance of Aikawa’s theory of technology at work. As we saw before, he defines technology broadly as all types of practical, goal-oriented human activity in the world. Production technologies, consumption technologies, hygiene technologies, legislative technologies, and moral technologies are intricate “complexes” of *objective* structures such as machinery, laws, and institutions and *subjective* ethos and goals. Together these technologies form the dynamic social architecture of modern Japan. Thus technology has the ontological status of being “in-between” science and culture (the material and spiritual) for Aikawa—or as his contemporary Miyamoto Takenosuke aptly described, of being “bodies of possibility.”

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<sup>31</sup> Aikawa, “Bunka eigaron,” 3.

*Bunka eiga* are cultural technologies that also constitute intricate “complexes” of scientific and aesthetic, subjective and objective elements. According to Aikawa, they cannot be reduced to objective documentations of external reality as many people pretended, and of course, they can never be described as pure works of fiction or conceptuality. In the same way that other technologies were concrete syntheses of material objects/processes and human objectives, *bunka eiga* were cultural technologies consisting of material cinematic technologies and conceptuality resulting in the cinematic image. These images bring forth a “new world” within objective reality by synthesizing the material technologies/techniques of film and abstract concepts such as “national unity” and “construction of East Asia,” for instance.<sup>32</sup> For Aikawa the documentary film embodied the “in-between” nature of technology in general as both material and imaginary product, or more specifically, as something concrete that goes toward realizing some practical idea. Moreover the *bunka eiga* represents some of the most important aspects of technology for Aikawa: praxis, sociality, imagination, transformation, and scientific rationality. Thus it was not outside the purview of his larger project of envisioning imperial Japan through his overall philosophy of technology.

### ***The Technological Structure and Organization of the Culture Film***

*The Theory of the Culture Film*, published in 1944 just before Aikawa was conscripted, was primarily a collection of his essays on documentary film during the 1940s, with some additional material and revisions. It was the culmination of his experiences at Geijutsu Eigasha (GES) writing, producing, and studying documentary film. Aside from the film critic Imamura Taihei’s

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<sup>32</sup> Ibid., 39.

book, *Theory of the Documentary Film (Kiroku eiga ron)*, it remains one of the few full-length theoretical treatments of the documentary film in pre-war and wartime Japan. Like many film commentators, Aikawa admired the scientific, high-tech quality of documentary film. Film in general, according to Aikawa, has a “particular technological structure.” “Films are possible worlds conditioned by creative and projective mechanisms that are the integrated product of physical, chemical, and electrical applications such as modern mechanics, optics, photo-chemistry, acoustics, and so on,” he writes.<sup>33</sup> Moreover, film production has a “modern manufacturing structure,” unlike classical artistic production, which is primarily individual and artisan-like in nature.<sup>34</sup> For example, he writes, “The director must bring out his own artistic image while simultaneously engaging in a complicated teamwork of cooperating with scenario writers, cameramen, and those being filmed, for example.”<sup>35</sup>

Aikawa also places a certain type of “productive critic” at the center of the documentary film production process. He attacks critics who merely give their personal impressions or wax eloquently about the artistic qualities of a film without contributing in any way to their improvement. For Aikawa the wartime critic actively participates in film production. The critic cooperates with technicians, cameramen, editors, actors, consultants, writers, and so on, in actively concretizing the “cultural conception of the Great East Asian War” in the cinematic image. Thus the new productive critic needs to be versed in all of the “thought technologies” of the *bunka eiga*.<sup>36</sup> As we shall see, Aikawa

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<sup>33</sup> Ibid., 15.

<sup>34</sup> Ibid., 11.

<sup>35</sup> Ibid., 11.

<sup>36</sup> See Ibid., 24-28 on the productive role of the film critic.

provides a detailed account of the “complicated teamwork” involved in film production, his role as a productive critic, and the specific problems they encounter in the technological process of making the film, *The Present Battle*. The practical, productive critic involved in the intricate details and collective endeavor of filmmaking resonates with his overall idea of grounding technology in concrete praxis and sociality.

### ***The Technical Rationality of the Culture Film***

Aside from the “technological structure” of documentary film production and the “complicated teamwork” and organization involved, Aikawa specifically admires *bunka eiga* for their “principal standpoint of discovering rational constructions within social and natural scientific reality.”<sup>37</sup> *Bunka eiga* “bring out knowledge against feeling, concepts against intuition, documentation against imagination, fact against fiction” within their very constitution.<sup>38</sup> Thus they represent progress over theatrical film, which primarily emphasize feeling, intuition, imagination, and fiction.<sup>39</sup> The scientific elements within the “technological system” of the *bunka eiga* “awaken the scientific elements asleep within the producer’s subject matter, and it permeates the film’s planning, construction, production, and in the end, even the way the film perceives, understands, and represents objects.”<sup>40</sup> Thus science and technology thoroughly infuses the subjectivities and actions of those cooperating in the production of the documentary as well.

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<sup>37</sup> Ibid., 15.

<sup>38</sup> Ibid., 16.

<sup>39</sup> Ibid., 16.

<sup>40</sup> Ibid., 16.

In fact Aikawa even sees this “scientification” (*kagakuka*) of the “means, subjects, and objects” as part of the overall campaigns to “scientificize” and “rationalize” everyday life through the New Order for Science and Technology. The principal goals of the New Order were to spread scientific and technical knowledge, to promote rational work techniques and organization, and to encourage technological innovation. In actively bringing out ideas and structures in the world and cooperatively coming up with new ways to represent social reality and thereby influence human thought and sensation, *bunka eiga* were at the vanguard of “scientificizing” and “technologizing” society.

### ***The Techno- Aesthetic Quality of the Culture Film: Neo-Realism***

Yet as mentioned before, Aikawa asserts throughout that the scientific, technological quality of *bunka eiga* is inseparable from its aesthetic, theatrical quality. “The screen is a filmic reproduction or representation. It is a created, manufactured product cut out and represented through subjective intent,” Aikawa writes.<sup>41</sup> “Visual formalization” is the cinema’s mode of expression, and improving that mode “requires improving its aesthetic quality,” he adds. “However, it is also a fact that unlike other arts, in the case of the cinematic form, the improvement of the aesthetic quality is firmly linked to an advancement of its scientific quality, and if the form is not supported by a scientific understanding of its technological foundation, it will not be aestheticized,” he writes.<sup>42</sup> Thus the image itself is a subjectively created “form of expression,” and inevitably involves an aesthetic element; however,

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<sup>41</sup> Ibid., 21.

<sup>42</sup> Ibid., 21-22.

the subjective, aesthetic element also inheres in the objective cinematic technology itself. Different cameras, lenses, sound equipment, lighting technology, and shooting techniques have their own aesthetic qualities, and any improvement in them can also improve the overall aesthetic quality of the film. In short, just as “objective” science and technology permeates the more “subjective” elements of planning, directing, producing, and acting, aesthetics permeates the more objective cinematic technology of the camera, lighting, editing equipment, and lens. Linking this to Aikawa’s wider theory of technology then, documentary film production is the complicated operation of multiple technologies that each synthesize “subjective” and “objective” elements into themselves—planning technologies, optic technologies, acting technologies, sound technologies, marketing technologies, and so on. *Bunka eiga* represents for Aikawa the epitome of the fusion of technology and art, productive power and the imagination.

He spends most of the book exploring the particular techno-aesthetic qualities of *bunka eiga*. Documentary filmmakers, according to Aikawa, must not delude themselves into thinking that documentaries instrumentally and objectively represent bare reality. Instead, they should pay close attention to the very essence of the cinematic image. “The essence of the cinematic image is the spirit of flow, the spirit of process, the spirit of montage,” Aikawa writes.<sup>43</sup> He adds:

Different from painting, the technological possibilities of film, which possesses a temporal structure, lies not only in explaining and recording, but in expressing the content of a narrative. Even in the rhythm and tempo of its constitutive flow, it is easy to incorporate dramatic elements, and depending on the situation, even “tricks” that

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<sup>43</sup> Ibid., 46.

would be impossible to depict on the theatrical stage. That is to say, groups of actors (performers), stage equipment (set and location), and the director appeared [with the advent of film], and thus the “scenario”...became necessary.<sup>44</sup>

“Documentarianism” (*kirokushugi*) ignores the flowing temporal structure of the film, according to Aikawa, by leaving everything to editing, placing too much emphasis on the timely snapshot, making the cameraman the director, and looking down on the integrated scenario in favor of a vague “roadmap.”<sup>45</sup> Instead the spirit of continuity, montage, and flow should permeate the entire process of film production, and it should be realized through creative editing, camerawork, acting, use of music, and subtitles, for example. Since the primary goal of the *bunka eiga* is not only to record reality but also to bring out ideals supposedly latent or brewing within reality, it has to fully utilize its very own techno-aesthetic or “constitutive power” (*kôseiryoku*) of continuity and flow.<sup>46</sup> The *bunka eiga* transcends both the documentary and the theatrical film in combining “scientific” and “aesthetic” elements into a dynamic, technological synthesis—a “new world” or “body of possibility.”

Aikawa and other critics describe the ideal techno-aesthetic of the *bunka eiga* as “neo-realism.”<sup>47</sup> Realism, according to Aikawa, is “trivial” and “desolate” in its obsession with the minute details of the world. It lacks any concern with national ideals such as “cultural construction of East Asia,” for example that might also be apparent within the flow of reality.<sup>48</sup> Romanticism, on the other hand, is escapist and self-absorbed. Aikawa writes, “The

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<sup>44</sup> Ibid., 42. Brackets mine.

<sup>45</sup> Ibid., 39.

<sup>46</sup> Ibid., 38.

<sup>47</sup> Ibid., 66, 67.

<sup>48</sup> Ibid., 67.

desolation of realist trivialism, empiricist self-consolation, and a type of socialized escapism are all problems necessitating internal reform. Because the construction that should arise—a romanticism toward tomorrow—should burn within them as the subjective impulse of neo-realism.”<sup>49</sup> Like technology in general, neo-realism synthesizes aesthetic feeling and scientific conceptuality in order to bring out hitherto unseen “truths” within reality, “truths” that cannot be fully captured in realism or romanticism. He writes:

In the process of reality are hidden stories that exceed stories, and it is often the case that the intelligence has its eyes opened by feeling. For example, while the portrayal of Hitler’s countenance in the Compeigne Forest and his embrace of Hermann Göring in front of his Berlin residence in the documentary, *Seiki no gaika* (Victory of the Century), are theatrical representations of performance exceeding performance, nevertheless, they are useful in strengthening the verisimilitude of reality. Even in science films such as *Aru hi no higata* (On the Beach at Ebb Tide), if a sense of wonder towards unperceived reality was not assumed [by the camera work and production], the appeal to the intelligence would have been weakened.<sup>50</sup>

Theatrical performance is necessary to presumably capture the moment of national joy in reversing years of “German humiliation” at the hands of France, for example, which could not be captured as well with cold, distant camera shots or through political speeches by the leaders. In *On the Beach at Ebb Tide* (1940), the use of the zoom lens, witty narration, and punctual music brings the unapparent world of a Japanese coastline’s wildlife and vegetation to life.<sup>51</sup>

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<sup>49</sup> Ibid., 67.

<sup>50</sup> Ibid., 81. Brackets mine.

<sup>51</sup> Available at the Yamagata International Documentary Film Festival office in Tokyo.

Recalling Benjamin's reference to the "surgical" operations of the filmmaker constituting the cinematic image, and its scientific and aesthetic character, Aikawa writes:

I believe in the image's infinite volume of rich, sensuous content, and think that it should lie within the image in the same way as scientific intelligence and theatrical aesthetics should also inhere in the image. The key lies in the process of discovering these images, pulling them out, and forming them in the practice of making the work. I think there is a danger of being obsessed with the narrow boundary between theatrical film and *bunka eiga*.<sup>52</sup>

While the bare image contains "rich, sensuous content," this content must be actively produced and teased out through practically interacting with reality, not passively observing it. As he mentions earlier, the film image itself already contains a certain scientific and "sensuous" quality; however, in documentaries, the conceptual, sensuous quality often needs to be brought out more strongly through staging and framing the subject. In this way the dramatic, emotional aspects of life can be captured better thereby bringing the audience closer to the subjects and ideals put forth in the film.

For example, Aikawa praises the "structure, color tone, flow, and lyricism" of Kyôbashi Takahide's film, *District Boat (Hômenshen)*, which "beautifully" captures life on and around a local boat route.<sup>53</sup> However, the film's gentle, flowing feel over-romanticizes life on the "small, muddy, and smelly" river.<sup>54</sup> In order to balance this out, Kyôbashi needs to emphasize "practice more than knowledge;" to focus more on the subject's "actions" and

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<sup>52</sup> Ibid., 83.

<sup>53</sup> Ibid., 89.

<sup>54</sup> Ibid., 88.

“expressions;” and to create a “decisively upward drive” within the gentle narrative flow, rather than merely describe, according to Aikawa.<sup>55</sup> These elements, combined with Kyôbashi’s “aesthetic sense” of river life would only add to his “truth-like brush of the pen” and to the “thick volume” of his images.<sup>56</sup> Thus “neo-realism” involves sharp camera angles, close-ups on human movement and expression, and the use of montage, for example, to fully bring out the dynamic energy and feeling within life.

The *bunka eiga*, *The Unknown People* (*Shirarezaru hitobito*), on the other hand, was too realistic, according to Aikawa. He praises the camera’s stark portrayal of “sewage workers toiling in the sludge,” “the darkness, filth, and odor of a rich neighborhood’s sewers,” and the “workers’ fight against the danger of disease.”<sup>57</sup> The film exudes a “young, rough feeling,” a kind of purposefully “unskilled” technique, which helps capture the reality of the sewers.<sup>58</sup> The lack of intrusive narration, the use of close-ups and pan shots to “make the images speak,” and the creative use of a human chorus in conjunction with the “reverberating sound of machines, the noise of grinding and squeaking, and the sound of shovels” all help create a sense of sympathy within the viewer.<sup>59</sup> However, the overall point of the film is unclear. “Is it merely to express our thanks from the bottom of our hearts for their self-sacrificial work in the darkness against the filth that we produce?,” he writes.<sup>60</sup> The film should also bring out the “vigor and strength” of labor, and the “cooperation and solidarity” involved in work, in addition to the hardship and

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<sup>55</sup> Ibid., 90.

<sup>56</sup> Ibid., 90.

<sup>57</sup> Ibid., 90.

<sup>58</sup> Ibid., 91.

<sup>59</sup> Ibid., 91.

<sup>60</sup> Ibid., 92.

toil, according to Aikawa.<sup>61</sup> The filmmaker should dig into the “depths of the workers’ minds” in order to bring out a sense of “awareness and responsibility” towards the larger war effort among both the workers themselves and the audience in general, and the larger significance of their roles as “worker soldiers” on the home front.<sup>62</sup> Thus neo-realism should not just realistically capture the minute details of life through the use of innovative techniques, but it should also capture the larger, national concepts supposedly at work in everyday life. The labor of sewage workers, for example, should also be a microcosm for the larger mission of “cultural construction of East Asia” and the war effort. These larger ideals should also be present in the details of the “neo-realist” image.

#### **IV. THE MAKING OF *THE PRESENT BATTLE* (1942)**

##### ***Background of ‘The Present Battle’***

Let us now turn to Aikawa’s attempt to realize such a neo-realist aesthetic through his involvement in the film, *The Present Battle* (1942). His commentaries and impressions of the film production process are very instructive since they illustrate his broader theory of technology as practical, creative, and cooperative action at work within a specific realm. We not only see his theory at work within the film production process, however, but in the very subject matter of the film itself—skilled workers within a large complex of factories that manufacture electric generators. In these two different production processes, we catch a glimpse of the problems and difficulties that

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<sup>61</sup> Ibid., 92.

<sup>62</sup> Ibid., 92.

Aikawa's theory of technology encounters on the ground. We see some of the messy details, which are occluded in Aikawa's neater diagrams of society as the simultaneous operation of integrated technologies whose overall logic is production and cooperation (and therefore, the elimination of the political as transforming relations of subordination). More importantly, however, we see examples of what Aikawa specifically means by defining technology broadly as transformative praxis, creativity, and cooperation. Referring to his study trips to Hitachi, Aikawa writes, "It goes without saying that those who grasp the theory of technology practically...must leave their paper-filled study behind and go to the actual site of technology."<sup>63</sup> Only then can one see the theory of technology concretely in action.

The Cabinet Information Bureau commissioned GES in 1941 to make an "epic" documentary film tentatively called, *National Solidarity (Kokumin renta)*.<sup>64</sup> Formed in 1937, GES was one of the most prolific producers of large-scale documentaries, and they were known for their in-depth, aesthetically innovative films on different aspects of daily life.<sup>65</sup> Aside from *Snow Country (Yukiguni, 1939)*, *Train C-57 (Kikansha C-57, 1941)*, and the popular *Young Soldiers of the Sky (Sora no shōnenhei, 1942)* described above, they produced a film by the former Proletariat Film League (*Purokino*) screenwriter, Atsugi Taka, entitled *Record of a Nursery (Aru hobo no nikki, 1942)*. This film showed the difficulties involved in making unruly children learn values of cooperation and self-discipline, and the nursery mother's job of teaching mothers modern techniques of childrearing and housekeeping.<sup>66</sup> The goal of

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<sup>63</sup> Aikawa, "Hatsumei hōshōsei no moderu," 42.

<sup>64</sup> Aikawa, "Hitachi kōjō kengaku-ki," 40. Aikawa, "Hatsumei hōshōsei no moderu," 42.

<sup>65</sup> Nornes, 59.

<sup>66</sup> Available at Yamagata International Film Festival office in Tokyo.

*National Solidarity* was to somehow concretely depict the abstract concept of “solidarity” between very different people—the manager, the soldier, the farmer, the engineer, the skilled laborer, and the “nation,” for example.<sup>67</sup> Moreover, the film was part of a GES series of three *bunka eiga* filmed in large factories released in the same year—Mizuki Sôya’s *Production for Victory* (Shôri he no seisan, 1942), Imaizumi Zenju’s *The Shipbuilding Corps* (Zôsen teishintai, 1942), and the film at hand, Nakayama Yoshio’s *The Present Battle*. Each film was set in a different type of industrial complex. *Production for Victory* portrayed the lives of workers in a crane factory trying to meet stiff production deadlines (shot at Ishikawajima Heavy Industries). *The Shipbuilding Corps* presumably dealt with one of Japan’s several world-class shipbuilding yards. Finally, *The Present Battle* focused on an electric generator plant (Hitachi Manufacturing in Tokyo).

According to Kubo Kenji, the filmmakers really wanted to capture the power of production from the “worker’s point of view.”<sup>68</sup> They did not want to make yet another film that merely described the industrial process from start to finish, or what he aptly called, the “start to finish film” (*dekirumade eiga*).<sup>69</sup> Such films employed the tired formula of showing the “sincere expressions of diligent workers using similar work methods,” the continuous movement of machines and conveyer belts, or the flashing sparks of a grinder. Rather than

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<sup>67</sup> While making the film, Aikawa constantly talks about the difficulty of “turning thought into image” (*shisô no eigaka*), particularly the difficulty of linking workplace solidarity to national solidarity and the greater mission of “cultural construction.” See for example, Aikawa, “Bunka eigaron,” 30-32. See also, Kubo Kenji, “Kôjô to bunka eiga,” (The Factory and Culture Film) *Bunka eiga*, (May 1942):36 and Asano Tatsuo, “Konnichi no tatakai: Seisaku hôkoku” (The Present Battle: Production Report), *Bunka eiga*, (June 1942):30-31.

<sup>68</sup> Kubo, “Kôjô to bunka eiga,” 35. From the tone of the article, Kubo sounds like a cameraman or technician. He talks about the difficulties of filming large structures, of distinguishing the different sounds, and of lighting up dark factory spaces.

<sup>69</sup> *Ibid.*, 35.

assuming an attitude of “human versus machine,” they tried to capture the sites of connectivity between human and machine in order to better represent the immense power of industrial production.<sup>70</sup> For example, when shooting the expression of a worker, it was also important to highlight what his or her hands were doing, Kubo writes. Or when filming a machine belt, it was also important to capture the handle that adjusted the belt. Or finally, instead of focusing on the sparks coming off of the grinder, one should film the thickness of the material as well, as it was being cut with a machine tool.<sup>71</sup> Like this, they sought to capture “the worker's point of view,” which was inseparable from the machine and the organization, rather than totally external and alien to them. Also, particularly in the case of *The Present Battle*, the filmmakers wanted to show the tremendous organization and cooperation between different types of workers that was involved in putting together a technological product. This was part of their goal of illustrating “productive power” to the fullest. Thus according to Kubo, representing “productive power” did not mean just filming and describing the mechanical process. It also meant showing the dynamic interaction and relationship between worker and machine, as well as worker and worker, worker and management, and ultimately, worker and nation. In the end, the audience themselves would become even closer to technology, particularly industrial technology, according to Kubo.<sup>72</sup>

Aikawa was asked to assist Asano Tatsuo, the screenwriter and editor for Nakayama's film probably because of his expertise in industrial technology and technology issues in general. Nakayama was primarily known as a cameraman, and he was probably interested in the difficult technical task of

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<sup>70</sup> Ibid., 36.

<sup>71</sup> These examples are taken from Kubo, “Kôjô to bunka eiga,” 35.

<sup>72</sup> Ibid., 35.

filming within an enormous, dark, and confusing factory.<sup>73</sup> Aikawa visited the factory of Nippon Kôkan (Japan Steel Tubing) and the main Hitachi electric generator plant in Taga-Hitachi in June, July, and August of 1941 for many days at a time each in order to do research for the screenplay.<sup>74</sup> The film was filmed soon after at one of the factories in the Hitachi complex. As mentioned in Chapter Two, he was particularly interested in the general characteristics of the invention promotion system (*hatsumei hôshô sei*) and the workplace groups and assemblies (*shokuba jôkai*) there.<sup>75</sup> He made another one-week research trip to some other Hitachi plants at the end of January 1942. According to Aikawa, the filmmakers were then struggling over how to end the film in a dramatic, uplifting, and more poetic manner. They were just about to shoot the final scene where the workers were preparing to test an 85,000 kilowatt water turbine to be sent to Malaysia, which at face value, was not very cinematically exciting, according to Aikawa.<sup>76</sup> Also, Pearl Harbor had just happened, and the filmmakers felt that some aesthetic mechanism was needed to connect the workers and factory more firmly to the expanding war effort and the ever more urgent task of the “cultural construction of East Asia.”<sup>77</sup> Thus they sent Aikawa again to come up with ways to achieve these.<sup>78</sup> This time he explored the invention promotion system or the way in which Hitachi encouraged and mobilized worker creativity more thoroughly. Apparently Morikawa Kakuzô, a former Mitsubishi Trading Company engineer

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<sup>73</sup> For Nakayama’s filmography as a cameraman, see <http://www.jmdb.ne.jp/person/p0271750.htm>. Kubo describes the challenges of factory shooting in his essay. Kubo, “Kôjô to bunka eiga,” 37.

<sup>74</sup> Aikawa, “Hitachi kôjô kengaku ki” 40. Aikawa, “Hatsumei hôshôsei no moderu,” 42.

<sup>75</sup> Aikawa, Hitachi kôjô kengaku ki,” 40.

<sup>76</sup> Ibid., 40.

<sup>77</sup> Ibid., 40.

<sup>78</sup> Ibid., 40.

and the head of the Cabinet Planning Board's Science Section, studied Hitachi's factories carefully when he helped draft the Outline for the New Order for Science and Technology.<sup>79</sup> Like Aikawa, Morikawa wanted to recreate Hitachi's invention promotion system and encouragement of worker creativity on a national level.<sup>80</sup> As we shall see, this technological mobilization of worker creativity and cooperation turns out to be a key component of the film as well.

### ***The Scenario of 'The Present Battle'***

Before examining Aikawa's experiences of making the film, let us first describe the scenario and imagery of *The Present Battle*. While the film no longer exists, an abbreviated version of the scenario was published in GES's research journal, *Culture Film*.<sup>81</sup> The film begins with a war song during the opening credits. The song exhorts people to "burst through the dark clouds of East Asia" and to collectively take pride in the war and "construction of East Asia."<sup>82</sup> The first scene shows the outside of the electric generator plant: a baffling collection of steel structures, blast furnaces, holding tanks, cranes, large ships, and dark smoke that collectively "smother the sun."<sup>83</sup> The factory is a complex of many factories employing thousands of workers for the production of powerful electric generators from start to finish. The next scene shows forty-five "half-naked men" throwing iron ore into the blast furnace and shaping them into steel parts for the generator. These parts are then shown transported one after another on electric trains to the rotary engine factory.

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<sup>79</sup> Aikawa, "Gijutsu no riron to seisaku," 238.

<sup>80</sup> Ibid., 238.

<sup>81</sup> Asano Tatsuo, "Konnichi no tatakai," (The Present Battle), *Bunka eiga* 2, no 6, (June 1942):66-71.

<sup>82</sup> Ibid., 66.

<sup>83</sup> Ibid., 66.

The next several scenes depict the many problems that occur within the rotary engine factory. A missing part in the cast iron factory delays the delivery of an important rotor. Workers are playing *shôgi* instead of minding the lathes. Machine parts are declared unusable because they have been sheared too much. A skilled lathe worker of thirty years complains about the lazy, careless younger workers. A younger worker is fed up with factory life and dreams of returning to the countryside. The factory office is inundated with complaints about delays, the irregular pace of work, and unusable parts. A crane hits a careless worker, causing a panic in the factory. The last scene in the chapter shows the chief engineer talking to another engineer while inspecting the factory. He talks about the lack of awareness and sense of responsibility towards the entire industrial complex. The slightest mistake is felt throughout the factory and affects the morale of other dedicated skilled workers. Production is steadily declining while demand is rising especially after the beginning of war with China (1937). The chief engineer worries that irresponsibility, waste, and carelessness will spread from factory to factory, and eventually to the entire country. He decides that new policies are in order.

The next chapter begins with the chief engineer reporting to the higher executives. He begins by blaming the poor results on the rotary factory's lack of a guiding management principle. He then outlines their new course:

First of all, shouldn't we respect our workers as human beings, trust them, and boldly ask for their cooperation? Shouldn't we treat them in a way so that they can take charge of their own positions within the factory, take responsibility for their own work, and spontaneously exert their whole energy? As a specific policy, we are therefore asking every work group leader to hold regular workplace meetings. We will have workers talk honestly about the problems they are facing, let them resolve the problems by themselves in a responsible manner, and

kindly guide them in these activities. In this way, their everyday work will directly connect with that of the state as a whole, and a self-awareness that their work is contributing to the expansion of victories on the Asian continent will take root.<sup>84</sup>

The factory is not merely a collection of cold, impersonal steel conveyer belts, machines, tools, and cranes; it should rather be a humanized space of spontaneity, creativity, and self-government as well. As we saw in Chapter Two, these values were at the core of the New Order for Science and Technology. According to the film, productivity and the spread of technology throughout life could best be achieved through guided devolution of responsibility and creativity, not simply by coercion and command.

The next scenes show groups of twenty to thirty workers gathering in the evening or at lunch under the shade of the machines or in open spaces. The old skilled worker complains about the selfish, lazy younger workers “of a different mindset,” and how they made work no longer enjoyable. The young worker from the countryside talks about the lack of excitement and challenge in his work, and he begins to ask whether a rural youth like himself was ever really suited for heavy industrial work. The following scene shows the youth leaving the factory in a bus. In the background the large factory overlooks decrepit huts. The voice of the chief engineer talks about the large number of rural youths who have lost hope in factory life and have returned to the countryside. While he says these youths are selfish, he also places responsibility on management for not making factory work more interesting and stimulating. Thus the chief engineer insists on the importance of the workplace meetings as the first step towards building cooperation between the workers and improving their conditions.

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<sup>84</sup> Ibid., 68.

The following scenes show the rural worker returning to his village only to be confronted by the spectacle of mechanized, cooperative agriculture, and the villagers forecasting an abundant harvest. An engineer from the agricultural cooperative tells the farmers how electrification, mechanization, and cooperative agriculture have eliminated waste and labor shortage and given the village a “spark” that it never had before. Upon seeing this spread of technology into the countryside, the worker suddenly realizes the importance of his former job. Farmers were employing the kinds of advanced machinery that he helped produce to increase food production for themselves and the nation. Lathe operators at motor factories like him therefore really did have an important role in improving the conditions of the countryside. The worker immediately rushes back to the factory. The voice of the chief engineer implores every person to do their part in their respective occupations to display the total power of Japan.

Images race across the screen symbolizing the building of the new Japan: coal flows on conveyer belts, trains speed across the horizon, boats are furiously being built, fish are writhing in their nets. The hard working faces of people working with all their might in their respective vocations are shown. The factory is alive with activity. The workplace meetings come alive with ideas as well. The voices of various workers talk about how the meetings have become useful for improving efficiency, rather than as just a venue for complaints. Headlines of the worker group newsletters flash across the screen, announcing their monthly goals. “The Foundation of Work is Order and Arrangement!” “Let us Eliminate Waste in the Workplace!” “Turn Your Ideas into Inventions!” An engineer and a worker are shown employing some

new invention, which improves productivity. Names of workers who have won invention awards are displayed on the news board.

The final chapter of the film begins with the announcement of war with the U.S. and Britain in 1941. A worker reads a statement at a factory assembly pledging to give everything to their work and to serve as “industrial soldiers.” Hundreds of workers yell *Banzai* in response. The next image is of the morning sun bursting through the clouds and workers marching to work to the tune of a war song. The song compares the color of the rising sun to the color of the sparks given off in their work shearing steel. Their work is directly connected to the “southern skies” and the “southern seas,” the song continues. The next images are from inside the factory, again to the tune of a war song:

Listen to the booming of the dynamo!  
The grinding of our steel-shearing tools!  
Our precise parts are for this great holy war!

Come to life, oh engines!  
Our nation’s power, 10,000 kilowatts!  
With this fierce power,  
Let us build the victory of tomorrow!

The creativity of our spark-emitting tools!  
The power of our great nation!  
This power, this glory,  
Connects with our workplace!<sup>85</sup>

Her technology (engines, tools) is associated with spiritual and martial vigor, as well as creativity and cooperation. Technology is no longer alien and uncooperativ but merges with human values and the national mission.

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<sup>85</sup> Ibid., 70.

The following scenes focus on the precise handiwork and skill of shaping steel. The rural worker is shown walking slowly on top of a revolving water turbine shaping its speed ring. His voice talks about the thousands of ways there are to shape steel and the pleasure of finding one's technique and creating a fine speed ring. This speed ring, he says, will eventually help generate 10,000 kilowatts, which will advance the culture of East Asia and defeat the US and British forces. "This fine way of cutting—this is the path to the new world order," he adds.<sup>86</sup> The film shifts to the engineering office where the chief engineer is rushing around busily while talking. "We have to build more water turbines for the newly occupied islands of Sumatra and Sulawesi," he says.<sup>87</sup> He receives several phone calls announcing the progress of different parts of the generator. The generator portion, housing unit, water turbine, and end bracket are all on schedule or ahead of schedule. Only the shaft and the rotor are left. The chief engineer tells the various section heads to encourage their skilled workers to exert utmost care in shaping these very difficult parts.

The next scene shows the chief engineer talking to the older lathe operator, who is carefully shaping the shaft. "The entire generator will revolve around this shaft," the announcer says. "Not only the generator, but the new Greater East Asia will revolve as well," he adds.<sup>88</sup> Another skilled worker is shown repeatedly shaving and measuring the rotor. The shaft has to perfectly fit into the rotor so every millimeter is important, the announcer says. "The

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<sup>86</sup> Ibid., 70.

<sup>87</sup> Ibid., 70.

<sup>88</sup> Ibid., 70.

precision of one-one hundredth of a millimeter is the first step to winning the Greater East Asian war,” another voice adds.<sup>89</sup>

The next scene is set in the evening. Strong lights illuminate the sides of the workers’ faces looking on nervously as a blowtorch widens the rotor hole ever so slightly. The slightest mistake will ruin the entire generator, as the shaft will not be able to fit into the rotor. The shaft is gradually lowered into the rotor by crane. The work group heads, engineers, crane operator, signalman, and assemblers are shown in tense cooperation. “Hurry and lower the shaft into the rotor while the hole is expanded from the heat! If it cools, the hole will shrink, and the shaft can no longer be inserted or removed,” the announcer shouts.<sup>90</sup> The shaft successfully fits into the rotor, to everyone’s relief.

The final scenes are of the test run. The testing engineer climbs the turbine as everyone looks on nervously. The announcer says:

All of you who have battled millimeter by millimeter throughout the night! All of you who have sheared one too many milimeters and produced unusable parts! Are you watching today’s test? Today’s test will show how your ability has been utilized, how much everyone has cooperated, and whether you have the unashamed qualifications to be the leaders of the East Asian peoples!<sup>91</sup>

The switch is turned on and the turbine begins to slowly turn. The engineer listens to the different parts as everyone holds their breath. He hears something abnormal and talks to the assembly foreman. The engineers, foreman, and workers spring into action fastidiously inspecting the problem and dirtying themselves with oil and grease. No malfunction, they signal. The

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<sup>89</sup> Ibid., 70.

<sup>90</sup> Ibid., 71.

<sup>91</sup> Ibid., 71.

generator is re-started: thirty revolutions, fifty revolutions, one hundred revolutions, the subtitles read. The next image shows the testing engineer and his assistant reading the meter. The machine reaches maximum power, emitting an enormous sound. The testing engineer gives a satisfied nod—no problems. Everyone rejoices. The film ends with a war song announcing that the flag of Greater East Asia will be planted around a “blooming creativity” and “blood-soaked war victories.” Workers are building a new tomorrow, a brighter future. The final scene shows the “sun of imperial glory” gradually spreading across a spinning globe in unison with the chorus.

## **V. *THE PRESENT BATTLE AND AIKAWA’S PHILOSOPHY OF TECHNOLOGY***

### ***Technology in ‘The Present Battle’***

The film abounds with themes and concepts that resonate directly with Aikawa’s theory of technology as creativity, transformative praxis, and cooperation. In the beginning the factory is presented as large, impersonal, overwhelming, and confusing. It is a place of unresponsive and frequently idle machinery, industrial accidents, uncontrollable processes, unusable engine parts, and frustrated and bored workers. Thus technology in the beginning has a narrow meaning of the external, alien means of production. Only when the chief engineer introduces the new management principles does technology take on broader meanings of spontaneity, cooperation, and responsibility. Workers become responsible for their own work results and for improving their own working conditions. They are allowed to come up with their own techniques and ways of handling machinery. Creativity is recognized with

invention awards. The machines, conveyer belts, lathes, grinders, blowtorches, and other machine tools burst into life, and they are infused with a new productivity, efficiency, and precision. Parts are manufactured far ahead of schedule. Mistakes and waste decrease. New technologies, techniques, and methods of organization are created and encouraged. Thus as the film proceeds, technology unites smoothly with the values of responsibility, cooperation, and self-government as well as Japan's war objectives in East Asia. These "technological values" even extend to the countryside where technology becomes associated with cooperative agriculture and a productive harvest, as the film portrays.

Technology also takes on aesthetic values in the film. As evidenced in one of the war songs during the film, industrial tools and machines exude creativity and power, which will pave the way for victory and the construction of East Asia. The turbine, the speed ring, the rotor, and the shaft will not only contribute to powering the entire generator but all of East Asia, says one of the lathe operators. Generators no longer simply produce electric power—they will actually generate a new society and culture in East Asia as well (the generators are destined for Sumatra and Sulawesi). Even the shaving of one-hundredth of a millimeter from the shaft and the rotor hole has larger meanings of victory and "cultural construction." The test run of the generator at the end of the film represents the culmination of the idea of technology as spontaneity, creativity, and cooperation. As the announcer says, everyone's technical ability, level of cooperation, and even "qualifications to guide East Asia" are all being put to the test. It is not simply the testing of yet another generator to be supplied to the market. In the final scene, the popular term, "construction of East Asia" (*Tôa kensetsu*), is given concrete form as the

cooperative, technical work of manufacturing the generator, which in turn will form the foundation for building an advanced industrial economy and culture throughout East Asia.

### ***'The Present Battle' as Empty Propaganda?***

*The Present Battle* is undoubtedly representative of many other propaganda films during the war, and it twists the reality of industrial (and rural) life and the actual effectiveness of industrial, technological organization during the wartime. The portrayal of industrial accidents, worker dissatisfaction, and inefficiency, and the suggestions of rural poverty at the beginning of the film illustrate some of the actual conditions. Also, while state mandated workplace associations and management initiatives to promote responsibility in the end failed to sufficiently increase productivity and pacify worker discontent, they laid the groundwork for post-war “Japanese-style management” initiatives and forms of rule.<sup>92</sup> Moreover, as Andrew Gordon writes:

[Effectiveness] should not be the standard by which to judge the undeniable *existence* of a new structure of rule... However passively, the people were instead linked to the state and the emperor through a vast and expanding network of functional organs imposed upon them by the state: youth groups, women's groups, village and neighborhood associations, Sanpô workplace associations, and agricultural and industrial producers' unions.<sup>93</sup>

As I have argued, however, an essential aspect of this imposed “new structure of rule” was its insistence on the spontaneity, creativity, practicality, and cooperative nature of technology, which was propounded in all of the

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<sup>92</sup> For post-war examples, see Tsutsui.

<sup>93</sup> Gordon, 330.

institutions Gordon mentions. As Aikawa shows elsewhere, the invention promotion programs portrayed in the film were actually implemented to some degree at Hitachi, which went on to become one of Japan's leading electronics manufacturers in the post-war.<sup>94</sup> These invention promotion programs were also part of a larger campaign announced in the Outline for a New Order of Science and Technology to promote and mobilize scientific-technological research, and to "cultivate a scientific spirit" through education and technical training. Thus while these institutions were indeed imposed, we should not ignore how they tried to operate at the level of creativity, spontaneity, and cooperation, which continued to be important values in Japan's post-war mobilization for rapid economic development.

### ***The Aesthetic Technologies of 'The Present Battle'***

As we saw above, the filmmakers also mention that *The Present Battle* was part of the state's attempt to familiarize and de-alienate people from the impersonal processes of heavy industry and technology for the war effort. Therefore it is important to analyze the specific aesthetic techniques by which they attempted to bring people closer to technology and its associated values described above. Moreover, we can catch a glimpse of what Aikawa meant by the "neo-realist aesthetics" that he associates with technological culture, whose primary vehicle was the *bunka eiga*. The *bunka eiga* embodied precision, scientificity, and reason, as well as feeling, imagination, and inspiration towards action. These are precisely the values that the multiple technologies of society should ideally embody as well. By analyzing Aikawa's notes on *The Present Battle*, we can concretely see what takes place in the

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<sup>94</sup> Of course, the situation in smaller industries was different.

construction of a more subjective, “cultural technology,” as well as how it actually operates.

Aikawa not only sees himself as the main screenwriter, but also as a prime example of the “productive critic” who is deeply involved in all aspects of documentary production—the writing, filming, editing, music, subtitles, and so on—in order to constantly improve it.<sup>95</sup> Like all technologies, the cultural technology of the *bunka eiga* was a “means in process,” or in other words, a unified complex of technologies such as sound, camera, editing, ethical, educational, and aesthetic technologies that were constantly changing and evolving. This complex of technologies created a dynamic, tension between “scientific” and “aesthetic” (or “conceptual”) elements, which depending on their proper combination generated an aesthetically pleasing and ideologically effective *bunka eiga*.<sup>96</sup> According to Aikawa, the critic’s role within the film production process was to somehow synthesize the various scientific and aesthetic technologies to create a pleasing and effective documentary. After production the critic must then discuss what went wrong and how things could be improved so that better documentaries can be made in the future. His book, *Theory of the Culture Film*, is therefore a reflection on how scientific and aesthetic technologies—the identity of which Benjamin said was one of the “revolutionary functions of film”—were either effectively or ineffectively synthesized in various documentary films.

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<sup>95</sup> See the section, “The Function and Role of the Critic in Production,” Aikawa, *Bunka eiga ron*, 28-30.

<sup>96</sup> Aikawa discusses this tension and the debate over whether the documentary is purely scientific or should incorporate “aesthetic” and “theatrical” elements in the section, “The Scientific and the Aesthetic,” *Ibid.*, 17- 20.

### ***The Problem of the Epilogue***

As we saw above, Aikawa was a fierce critic of “documentarism,” or the belief that documentaries objectively represent reality. Therefore many of his critiques and comments of *The Present Battle* focus more on the need to add the proper amount of “theatrical” elements to the film without overdoing it. The first problem of the film, according to Aikawa, was the epilogue. When Aikawa viewed a test reel during the filming, he had the following critical comments: “Today in the aftermath of December 8<sup>th</sup>, shouldn’t a *bright* feeling filled with *hope* towards the rising dawn of the cultural construction of East Asia, and the *will* of the resolute nation (*minzoku*) at its center at least come out in the epilogue?”<sup>97</sup> “Bright,” “hope,” “will”—these could not be fully captured using typical documentary film techniques, which are based on the assumption that the camera passively records reality. According to Aikawa, the existing epilogue was too “mundane.”<sup>98</sup> After the “dramatic” and “mentally tense” test run of the “record breaking generator” described above, the filmmakers apparently ended on the following series of shots: a dam, water bursting out of the dam’s holding tank, water flowing into a water turbine and being transformed into electricity (to the tune of the ending song), a factory, a house, and soldiers marching to the front.<sup>99</sup> For Aikawa the epilogue is the most important part of the film, similar to the grand finale of an orchestra and the fall of the curtain at a play.<sup>100</sup> It should synthesize all of the film’s chapters, “burn

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<sup>97</sup> Ibid., 29. Emphasis Aikawa’s.

<sup>98</sup> Ibid., 30.

<sup>99</sup> Ibid., 30.

<sup>100</sup> Ibid., 30.

the main point of the film into the audience's eyes," and "leave suggestions for the problems of life."<sup>101</sup>

As it was, however, the last series of shots were not able to fully connect with the "environment within the workplace after December 8<sup>th</sup>" or the "feeling of national solidarity in each workplace and work area" previously represented in the "smooth" run-up to the final, dramatic test run.<sup>102</sup> The ending was characteristic of a science film—merely a dry series of images that tell the audience where and how the electricity was being delivered to the war front. The important ideas of the film such as "national solidarity," "constructing East Asia" through dedication to one's vocation, and exhibiting "total power" through cooperation, self-responsibility, creativity, and spontaneity—all of these did not fully come out in the epilogue. Apparently the filmmakers took Aikawa's advice since the scenario does not mention the above series of images. It just ends with the test run and the final shot of the sun rising over a revolving globe.<sup>103</sup> Aikawa was also not very happy with this ending; however, in the spirit of the productive critic, he analyzes this difficult problem and poses it as a challenge for future filmmakers.<sup>104</sup> He calls it the problem of "turning thought into image."<sup>105</sup>

### ***Turning Thought into Image***

The process of "turning thought into image" is not merely the transmission of information such as in a "boring national policy lecture,"

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<sup>101</sup> Ibid. 30.

<sup>102</sup> Ibid., 30.

<sup>103</sup> Aikawa also mentions that the directors "totally agreed" with his rather "abstract" advice. Ibid., 30.

<sup>104</sup> See the section "From a Poor Experience" in Ibid., 31-36.

<sup>105</sup> Ibid., 31.

Aikawa writes.<sup>106</sup> It is a creative, transformative act. “The *bunka eiga* should not merely swallow a ready-made thought but rather, the *bunka eiga* itself must create the very image of this national guiding thought,” he adds.<sup>107</sup> As mentioned above, the *bunka eiga* is not a mere instrumental documenting of reality but the creative excavation of something potential or dynamic *within* reality through the active use of different cinematic and conceptual techniques. The subjective, aesthetic aspects of film technology exhibited in the editing, writing, camerawork, sound, and lighting should be creatively utilized to not only bring out a new reality but more importantly, to stimulate and mobilize subjects towards producing that very reality. As he writes in *Modern Theory of Technology*, the “mass transmissibility” and ability to forge new sensations constitute the true potential of film technology.<sup>108</sup> According to Aikawa’s theory of technology, technologies are “bodies of possibility” or dynamic combinations of subjective goals and objective processes of realization that constantly produce new realities. Therefore the cultural technology of the *bunka eiga* is no different. It constitutes a dynamic combination of advanced material technology and innovative aesthetic techniques that *virtually* produce another reality within the viewer and *potentially* stimulate the viewer towards constructing that reality in some way.

Interestingly, the films that best embodied such effective combination of feeling and realism, science and aesthetics, according to Aikawa, were Sergei Eisenstein’s *The Old and the New* (1929) and Fridrikh Ermler’s *Counterplan* (1932).<sup>109</sup> Eisenstein’s film portrays the Russian peasantry’s struggle to

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<sup>106</sup> Ibid., 31.

<sup>107</sup> Ibid., 31.

<sup>108</sup> Aikawa, “Gendai gijutsuron,” 278-279.

<sup>109</sup> Ibid., 31.

collectivize and introduce modern agricultural technology. Ermiler's film describes a metals factory during the first Five Year Plan, and how the workers transform themselves into "socialist human beings" who cooperatively and efficiently manufacture engine parts for the new Soviet Union. The similarity between these propagandistic scenarios to that of *The Present Battle* is quite striking and illustrates the revolutionary idealism or desire for a new reality that infused *bunka eiga* at the time. Japanese fascism had indeed converged with Stalinist socialism.<sup>110</sup> In fact this revolutionary idealism infused Aikawa's entire theory of technology as well, particularly its emphasis on the creativity, imagination, cooperation, and spontaneity embedded within technology.

### ***Representing the Integrated Nature of Technology***

Aside from the pressing problem of "turning thought into image" at the very heart of the *bunka eiga* is the problem of how to represent the "integrated" nature of technology.<sup>111</sup> Aikawa originally suggested a locomotive factory or shipbuilding yard because these fully displayed the organic yet intricately differentiated process of heavy industrial production from steel making to engine production.<sup>112</sup> Moreover, the "dynamic feeling of the docks with its forest of cranes" and the "mass mobilization for the 'going out to sea' ceremony" made for exciting cinematic material. However, they eventually settled on the Hitachi generator plant because it represented a "productive life sphere" that was just as organically complex but easier to capture on film

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<sup>110</sup> Aikawa continued to be a strong supporter of Stalin's policies after the war while he was active in the Japan Communist Party.

<sup>111</sup> Ibid., 31.

<sup>112</sup> Ibid., 31.

because of its smaller scale.<sup>113</sup> It was also more representative of Japanese heavy industry than a shipbuilding yard, according to Aikawa.

An inseparable part of the synthetic, integrated nature of production technology was the “vertical” and “horizontal” solidarity of the engineers, workers, and managers.<sup>114</sup> This solidarity, however, was not the typical top-down type of factory organization, but possesses a “flexibility” due to its system of workplace associations whereby workers are made to take responsibility and come up with new ideas. For the filmmakers, this technological organization presented a “powerful miniature diagram” of “national solidarity” as a whole. The organically differentiated unity of the technologically organized factory represented how all of Japan should be organized as well.

However, the filmmakers needed to explicitly make this integrated link between the factory and the rest of the nation. The last thing they wanted to produce was yet another specialized “factory film.” Thus they inserted the scene where the worker from the countryside returns home only to find that his village was prospering from the introduction of agricultural technology and cooperative agriculture. The message was that technological organization not only occurs in the factory but also in the countryside. Aikawa wanted to make even more integrating links to the organization of urban consumers and the organization of households into neighborhood associations.<sup>115</sup> In fact they even filmed an epilogue that showed a “household of technology” (a modernized household) and then the factory in an attempt to represent the

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<sup>113</sup> Ibid., 31.

<sup>114</sup> Ibid., 32.

<sup>115</sup> Ibid., 32.

technological links between the two.<sup>116</sup> However, they “reluctantly cut” the scenes because they had trouble linking them with the film’s characters, and they were afraid these would be too much of a diversion from the main themes.<sup>117</sup> For Aikawa the lack of any representation of a synthetic connection to city life was a major down point of the film.<sup>118</sup>

### ***Inserting “Theatrical Elements” into Film***

The problem of inserting “theatrical elements” into *bunka eiga* came into sharp relief when the filmmakers decided to focus a little on the lives and characters of the chief engineer and two skilled workers in the film. This, of course, required the use of actors. Aikawa was a firm believer in using actors and inserting mini-narratives as part of producing “neo-realist” *bunka eiga*. While very difficult to do successfully and convincingly, according to Aikawa, “these methods are fine to use even in *bunka eiga*, when systematically constructing *facts that should be possible* within reality.”<sup>119</sup> As we have seen, Aikawa views reality as multiple technologies that are imbued with human objectives. Technologies are “means in process” going towards some conception of “the possible.” This philosophy infuses his theory of the *bunka eiga* as well and affects their very production. In order to bring out the “possible facts” within reality, the *bunka eiga* must not simply represent the outside world but should actively intervene in it as well so that these “possible facts” become clearer. In making *The Present Battle*, they apparently filmed several more elaborate scenes with actors and inserted more side-narratives

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<sup>116</sup> Ibid.

<sup>117</sup> Ibid.

<sup>118</sup> Ibid.

<sup>119</sup> Ibid., 33. Emphasis Aikawa’s.

as well in order to put color into the characters and their lives; however, apparently these “failed.”<sup>120</sup> Aikawa is aware of the danger of the film becoming an unconvincing, overly theatrical “factory story” by using such “dangerous methods.”<sup>121</sup> However, he continues to encourage the producers to find subtle, creative ways of dynamically representing the world without overdoing it.<sup>122</sup>

### ***Constituting the Cinematic Flow***

The cinematic form itself necessarily demands the creative use of aesthetic techniques because of its temporal structure and nature, according to Aikawa. He writes, “The flow of the film is an art, and it should be called an art of process. ‘Continuity’...is the life of the film, and here a particular construction is formed; therefore, montage also has a particular importance here.”<sup>123</sup> The film is always a manufactured product, and it can never pretend to be a simple reproduction of reality. Instead of taking this type of deluded stance, documentary filmmakers should focus on the innumerable aesthetic and sensory possibilities of the cinematic form. The constitution of the flow, in particular, creates numerous possibilities and is essential to the construction of the film. He writes:

Film must have a temporal structure that is of a different dimension than that of theater. From the standpoint of ‘representation technology’ (*enshutsu gijutsu*), the theory of editing is decisive, and it must emphasize what I call the spirit of flow or the spirit of process. The continuity formed by the montage is the basis of representation, and it distinguishes film from theater as something particular to film.

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<sup>120</sup> Ibid., 33.

<sup>121</sup> Ibid.

<sup>122</sup> Ibid.

<sup>123</sup> Ibid.

Therefore, in film, production and editing are the primary technologies, while acting and filming are divided, and merely become technological elements subordinate to them. Recording, music, and even the scenario at the basis of the film must also follow these decisive technologies.<sup>124</sup>

Aikawa calls editing and cinematic production or representation, “technologies,” rather than arts or instrumental techniques. Even acting, filming, voice recording, music, and scenario writing are technologies, albeit subordinate to editing and production. In short, the film is a “synthesis of technologies.”<sup>125</sup> The filmmaker, however, should focus primarily on the flow of the film through creative experimentation with editing and production technologies since the flow or continuity is the very life of the film, which determines its aesthetic effectiveness.

In *The Present Battle*, Aikawa was primarily interested in how to effectively constitute a cinematic narrative that flows from negative to positive. The filmmakers achieved this by first showing worker discontent and industrial accidents, and an overall “dull sensation” within the factory. The transition point from negative to positive occurs when the skilled worker returns to his village only to witness the introduction of electric technology and cooperative agriculture there. In the conclusion, the film shows the awakening of a “spirit of solidarity” and the coming to life of the entire factory. Yet the production of a simplistic linear narrative from negative to positive does not necessarily guarantee effectiveness, according to Aikawa. Another challenge the filmmakers faced was to also insert historical time into the film. How can the continuity of the film capture the “zig-zag development” of history in the form of

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<sup>124</sup> Ibid., 57.

<sup>125</sup> Ibid., 57.

a “process,” Aikawa asks?<sup>126</sup> The film covered the period from the China Incident in 1937 to Pearl Harbor in 1942. In between these events, there was the total mobilization for the “Advanced National Defense State” and the beginning of the war with China. When the film was released, Japan had already invaded much of Southeast Asia. The filmmakers wanted to make the film more realistic by somehow capturing the excitement and punctuality of unexpected historical events within a continuous temporal structure.<sup>127</sup> Thus they presumably inserted the scene of a worker assembly right after Pearl Harbor, and they kept associating the workers with the battlefield and the “cultural construction of East Asia.” Editing and production technologies allowed filmmakers to experiment with ways of representing these different temporalities. For example, Aikawa keeps emphasizing the montage as an editing technology that allows for the representation of the related temporalities of the workers and of historical events.<sup>128</sup>

### ***Music and Narration***

Although editing was one of the primary technologies used for creating cinematic temporality, it was not the only one. As we saw above, acting and the insertion of theatrical interludes were other techniques. Aikawa also focuses on the use of music and the announcer. Just as too much acting and too many theatrical interludes can be detrimental to the film, so can the excessive use of music and announcements. Aikawa particularly does not like the use of narration or subtitles because these kill the aesthetic effect of the

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<sup>126</sup> Ibid., 33.

<sup>127</sup> Ibid.

<sup>128</sup> Ibid.

image due to their “conceptual nature.”<sup>129</sup> *Bunka eiga* should rather have more music instead because this brings out the “scenery, the ups and downs, and the flow.”<sup>130</sup> Documentary filmmakers should emphasize the “cinematic language” of the film through editing, filming, acting, and so on, rather than overtly inserting conceptual language through narration.<sup>131</sup> *The Present Battle* suffered from too much narration, particularly toward the end. Aikawa preferred the “symphonic flow” of the series of factory images at the beginning of the film.<sup>132</sup> While he recognizes that narration is unavoidable in documentaries, he urges filmmakers to further explore cinema’s other aesthetic technologies.

### ***‘The Present Battle’ as an Instance of Aikawa’s Broader Theory of Technology***

Thus in the making and subject matter of *The Present Battle*, we catch a glimpse of how Aikawa’s ideal world of an organic complex of dynamic technologies actually worked on the ground. First, we see some of the problems in the engine factory that is supposedly at the forefront of Japanese technology and worker innovation (i.e. Hitachi). For example, there is desertion, injury and death from industrial accidents, carelessness resulting in waste and unusable parts, lack of organization and communication between sections, boredom and disgruntlement among workers, and very little innovation on the factory floor. While in the end the film shows how management technologies such as holding regular workplace meetings,

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<sup>129</sup> Ibid.

<sup>130</sup> Ibid.

<sup>131</sup> Ibid., 34.

<sup>132</sup> Ibid., 32.

developing invention promotion programs, devolving responsibility, and instilling a higher sense of purpose corrected these problems, we nevertheless see some of the very real problems and latent conflicts that helped bring about the introduction of such management technologies. The main point of Aikawa's society of technology, however, is that these problems never pose a lethal threat to the system, but can always be managed through the operation of newer technologies, as suggested in the movie.

Second, we see the problems involved in the very making of the film or within the "cultural technology" itself. Far from being the smooth operation of various technologies of editing, acting, lighting, directing, and camerawork, the filmmakers faced many different problems. They struggled to make a dramatic epilogue that powerfully captured the ideals of national solidarity and "cultural construction"; they had trouble representing the organic connection between the world of the factory and the world of urban consumption or family life, for example; they experimented with actors and side-narratives, resulting in forced, artificial scenes; they tried to combine the different temporalities of the worker and the unexpected historical event using montage and editing techniques, often creating a clumsy cinematic flow; they used music and narration abundantly, sometimes killing the aesthetic effect through too many announcements. Similar to factory production, film production was a messy combination of aesthetic and material technologies involving the immense cooperation of many people. While mistakes abounded, the end result was a complex cultural product that served an important role in illustrating the permeation of technology throughout life, and encouraging the technological ideals of cooperation, creativity, responsibility, and praxis among the populace. The mistakes instead posed challenges for future filmmakers to

develop new aesthetic technologies to produce even better *bunka eiga*, and ultimately, new cultural forms. Like the interaction of technologies in Aikawa's social system as a whole, the many technologies involved in film production—while messy and conflict-ridden—would eventually manage whatever problem arose.

Asano, the screenwriter, confirms most of the above difficulties involved in making the film that Aikawa mentions. He also emphasizes the overall goal of concretely expressing the abstract ideal of “national solidarity” through the microcosm of the high-tech factory and the ideals it exhibits—the interpenetration of technology and the lives of the workers, technology and creativity, technical cooperation between specialized occupations, and the organic links between the factory and other parts of society such as the countryside.<sup>133</sup> Through the prism of heavy industrial technology and worker life, the entire film was an attempt to make people understand “national solidarity” as present in all aspects of everyday life, according to Asano.<sup>134</sup> Thus it was necessary for the filmmakers to spend ten to twenty consecutive days meeting with the managers, workers, and engineers, visiting their houses, and drinking with them in order to get a feel for their everyday lives.<sup>135</sup> The entire production itself took two years. This constant interaction with the Hitachi employees apparently led the filmmakers to incorporate some of the negative aspects of factory life into the film, according to Asano.<sup>136</sup> Thus the production was not entirely propagandistic and fictional.

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<sup>133</sup> Asano, “Seisaku hōkoku,” 30-31.

<sup>134</sup> Ibid., 30.

<sup>135</sup> Ibid., 31.

<sup>136</sup> Ibid.

In addition to presenting microcosms of Aikawa's society of technology at work, *The Present Battle* also displayed a range of aesthetic technologies that if done well, could potentially mobilize people to adopt some of the values of the society of technology (e.g, rational organization, creativity, cooperation, praxis). Ending with a tension-filled scene of the engineers, workers, and managers working together to test the generator instead of ending with a generic series of images showing how their work eventually produces energy; using actors such as the chief engineer and the rural worker to personalize the film's themes; experimenting with montage to produce different temporalities that go from "negative to positive" or that could capture the punctuality and excitement of the outbreak of war; stringing together very different images such as the countryside and factory to make abstract ideals such as "national solidarity" more concrete; taking away unnecessary narration so as not to upset the aesthetic effect of the images themselves and using more music to bring out more feeling. All of these "neo-realist" technologies of filming, acting, editing, sound, and writing were designed to appeal to mass sensation in a way that books, speeches, and "objective" documentaries could not. In this way, technology takes on a meaning as more than instrumental machinery and tools, and more of an immaterial sense of the techniques that immediately shape human sensation and subjectivity. Aikawa was always interested in the more subjective "cultural technologies" of film because of their closeness to everyday mass sensation. They best exhibited his theory of how technology has come to productively permeate and saturate life in its entirety. Ultimately, however, these cultural technologies sought to mobilize collective expression for the establishment of a New Order in East Asia, which promised an end to class, ethnic, and social conflict some time in the future. As such, they

therefore worked to prevent the politicization of mass subjectivity towards transforming property relations and other relations of subordination in the present as Benjamin envisioned, and as we shall see later, Nakai as well.

## VI. THE RECEPTION OF *THE PRESENT BATTLE*

### *Critical Reception*

The critical response to *The Present Battle* was mixed; however, the critics recognized the difficulty of concretely capturing the ideals of “cultural construction of East Asia” and “national solidarity” on film. In the leading film magazine, *Film Report (Eiga Junpô)*, Ôtsuka Kyôichi praised the filmmakers’ effort to represent national solidarity through the specific situation of a factory and its attempts at technical reorganization.<sup>137</sup> However, on the whole, he considered the film a failure for several reasons. First, the acting was unrealistic and forced, and the voice narrations of the characters seemed artificial. The scenes at the beginning of the various problems occurring at the factory were much more effective, he writes.<sup>138</sup> Second, the scene trying to connect the engine factory with technological development and cooperative agriculture in the countryside was unnatural, as were the quick succession of images of running trains, trees being cut down, and fish writhing in nets as a way to connect the factory with other forms of economic activity.<sup>139</sup> Instead of feebly trying to show solidarity and technological connectivity with various parts of society, the film should have just focused more thoroughly on workers using their creativity on the shop floor or on their different forms of

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<sup>137</sup> Ôtsuka Kyôichi, “Bunka eiga hihyô: Konnichi no tatakai,” (Culture Film Review: The Present Battle), *Eiga junpô*, (Sept. 21, 1942):142.

<sup>138</sup> Ibid.

<sup>139</sup> Ibid.

cooperation, Ôtsuka writes.<sup>140</sup> Only at the end of the film should the creative solidarity of the factory workers be shown to spill out to the rest of the country. Instead the film haphazardly showed different types of technical solidarity thereby weakening the theme as a whole. More focus on the particular workers and the factory would have been more effective, according to Ôtsuka.<sup>141</sup> He also thought that the epilogue depicting the test run did not flow well with the rest of the film.<sup>142</sup> Yet he conceded that *The Present Battle* was an important first step in the difficult task of concretizing abstract concepts such as “national solidarity,” and more importantly, that the heavy industrial factory was an excellent choice of location to do this.<sup>143</sup>

Another critic, Ueno Kôzô, also called *The Present Battle* an important film that stood out from hundreds of other *bunka eiga* due to its ambitious task of trying to communicate national solidarity in an aesthetically sophisticated manner.<sup>144</sup> However, the task of representing all types of national solidarity within one film was too much for the “young genre” of *bunka eiga*, according to Ueno.<sup>145</sup> Like Ôtsuka, he also found the attempts to link the solidarity within the factory to other areas such as the countryside through the trope of technology unconvincing. The scene where the worker goes back to the countryside had the feeling of a “forced sermon,” and it did not directly link the particular engine factory to the actual technology and work of the peasants.<sup>146</sup> The technologies used in both places were only abstractly linked. The

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<sup>140</sup> Ibid.

<sup>141</sup> Ibid.

<sup>142</sup> Ibid.

<sup>143</sup> Ibid.

<sup>144</sup> Ueno Kôzô, “Bunka eiga geppô” (Culture Film Monthly Report), *Nihon eiga* [Japanese Film] (Aug. 1, 1942):19.

<sup>145</sup> Ibid., 17.

<sup>146</sup> Ibid., 18.

filmmakers should have just focused on the different forms of solidarity within the factory, and let the viewer make the connections to other parts of society, Ueno writes.<sup>147</sup> Or they should have made a more abstract film dealing with solidarity in different parts of Japanese society. Mixing both abstract and concrete concepts did not work very well, according to Ueno.<sup>148</sup> Other problems included too many fantastic and dramatic camera shots from the crane without any more mundane shots leading up to it, and a discontinuity in the narrative between the former and latter portion of the film. Aside from this, however, the camerawork, scenario writing, editing, and insertion of announcements and music showed great skill and innovation.<sup>149</sup> *The Present Battle* was a film that should definitely be questioned and debated more, he concludes.<sup>150</sup>

### ***Ticket Sales and Popular Context***

*The Present Battle* was released on the same date as one of the most popular films of the wartime period—Nihon Eigasha's two-part film *Malayan War Front: A Record of the March Onward* (*Marê senki: shingeki no kiroku*) and *Malayan War Front: The Birth of Shōnan Island* (*Marê senki: Shōnan tō tanjō*). This *bunka eiga* dramatically captured the Japanese army's rapid advance through Malaysia and capture of Singapore in 1942. The film is famous for its shot of the meeting between General Yamashita Tomoyuki and Lieutenant General Arthur Percival to negotiate the surrender of Singapore. By running the camera slower to emphasize their facial expressions and bodily

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<sup>147</sup> Ibid., 19.

<sup>148</sup> Ibid., 19.

<sup>149</sup> Ibid., 19.

<sup>150</sup> Ibid., 20.

movements, the filmmakers made Yamashita look vigorous and forceful, and Percival look weak and obsequious.<sup>151</sup> The film also shows footage of soldiers marching through muddy terrain and building bridges, speeding tanks and soaring fighter airplanes, and thousands of prisoners of war watching the Japanese army march into the city.<sup>152</sup> It grossed around 700,000 yen, more than twice what the filmmakers expected.<sup>153</sup> The fact that a *bunka eiga* or documentary grossed this much made it all the more remarkable. The fiction film, *The Song of the Eight Maidens* (*Yaotome no uta*, 1942), which ran along with *The Present Battle* during the week of August 27, 1942, only made 280,000 yen. One commentator called this overtaking of a feature film by a documentary an outrage to the film world, and wrote that this should serve as a wake up call for those making traditional feature films.<sup>154</sup> While the demand for war footage fueled much of the film's popularity, one cannot deny that the documentary aesthetic was also beginning to overtake traditional fiction film. *Young Soldiers of the Sky* (*Sora no Shinpei*, 1942), a *bunka eiga* released one week later about a young boy's training to become an air force pilot, also managed to gross more than other feature films.<sup>155</sup> Thus it was quite obvious to many that the more realistic, hard-edged quality of the documentary film was beginning to dominate public culture. In this sense, *The Present Battle* was released to an audience already receptive to the *bunka eiga* form.

While many people perhaps went to watch the feature film, *The Song of the Eight Maidens*, *The Present Battle* was nevertheless seen along with it by

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<sup>151</sup> Nornes, 88.

<sup>152</sup> The film is available at Waseda University Library.

<sup>153</sup> Kiyomizu Chiyoda, "Geki eiga no bujoku kiroku," (An Insulting Record for a Fiction Film), *Eiga junpô*, (October 1, 1942):3. Nornes, 88.

<sup>154</sup> Kiyomizu, 3.

<sup>155</sup> *Ibid.*, 3.

a relatively large number of people, raking in 106,705.71 *yen* during its first week in eleven major Tokyo theaters.<sup>156</sup> Ticket prices in Tokyo ranged from 46 *sen* to 1.11 *yen* for first class tickets.<sup>157</sup> This means that around 231,968 people viewed the film if we divide the gross revenue by the lowest ticket price of 46 *sen*. A more realistic figure would probably be around 200,000 people, taking into account the varying ticket prices at each movie theater. *Malay War Record*, which it was competing with, earned more than twice as much at 264,831.99 *yen* during the first week.<sup>158</sup> Using the same very rough calculation method, this means that around 500,000 people in Tokyo viewed this film. The statistics were comparable in other major cities such as Yokohama, Kyoto, Nagoya, and Fukuoka—around twice as many people saw *Malay War Record* than *The Present Battle*.<sup>159</sup> Glancing at statistics for other movies during 1942, *The Present Battle* can be said to have done averagely. But given the unusual circumstances where *bunka eiga* were outperforming feature films, we can surmise that more and more people were indeed paying attention to them.

### ***Popular Effectiveness of ‘The Present Battle’***

Judging from the critical response then, it is clear that people recognized the different aesthetic techniques used by the filmmakers and viewed the film as an important landmark in the development of the *bunka*

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<sup>156</sup> “Tokyo fûgirikan hachi-gatsu dai yon shû, dai go shû kôgyô seiseki hyô (Entertainment Industry Earnings Chart for the Fourth and Fifth Weeks of August at Main Tokyo Theaters), *Eiga junpô*, (Sept. 21, 1942):47.

<sup>157</sup> Ibid.

<sup>158</sup> Ibid.

<sup>159</sup> “Chihô toshi fûgirikan hachi gatsu dai go shû kôgyô seiseki hyô” (Entertainment Industry Earnings Chart for Main Theaters in Regional Cities for the Fifth Week of August), *Eiga junpô*, (Sept 21, 1942):57.

*eiga* genre. However, the techniques of representing national solidarity through technology were largely unconvincing to the critics, who were more interested in the particular organization and solidarity within the factory itself. The film can be said to have been somewhat effective since it engendered some interest in the technical workings and organization of an engine factory, and made people think about representing society through the paradigm of the technical factory. Moreover, the fact that the critics recognized some of the techniques of the filmmakers and acknowledged their importance showed that they were engaged with the themes and techniques of the film. Obviously, the film was not just another typical *bunka eiga*, even though it was not entirely convincing.

While it is very difficult to truly know the popular effectiveness of the film, it is clear that a significant number of people watched it. Its release during the month where two other *bunka eiga* outperformed traditional fiction films almost guaranteed that people were paying some attention to *The Present Battle* as well. The “neo-realist” documentary aesthetic dominated the public sphere and had a very receptive audience. While the events of the war and state patronage probably helped generate some of the enthusiasm for the documentary form, we cannot totally rule out the effectiveness and popularity of the genre itself. As mentioned before, many popular fiction films such as Akira Kurosawa’s *The Most Beautiful* also incorporated documentary aesthetics. Thus *bunka eiga* such as *The Present Battle* can be said to have contributed to spreading a certain techno-aesthetic among the people. For Aikawa, this aesthetic of the *bunka eiga* was one of the most effective ways of spreading the technological values of creativity, cooperation, practical

involvement, and rationality necessary to build the imperial society of technology.

## VII. CONCLUSION

For Aikawa, “reproductive art” revolutionized human sensation and held multiple possibilities for popularizing culture and enabling mass expression. Documentaries or *bunka eiga* in particular represented one of the highest forms of cultural expression of modern technological society, according to him. Their mixture of scientific precision and rationality along with creative aesthetic techniques of editing, lighting, and sound, for example, helped create a dynamic technological sensation among the people, and encouraged technological values of organization, innovation, and scientific rationality as well. Through the continuous development of newer cinematic technologies and innovative aesthetic techniques, “neo-realism” would become the predominant aesthetic in society, helping to mobilize the diverse energies of the people for the war effort and the “cultural construction of East Asia.” Like the other technologies that constituted society, “neo-realist” cultural technologies such as the *bunka eiga* fused subjective, ethical intent with objective processes and practices, according to Aikawa. For example, *The Present Battle* fused the goal of encouraging important technological values of responsibility, creativity and organization with evolving technologies of filming, editing, script writing, and acting in an attempt to proliferate those values among the people.

While we clearly see suggestions of the *failure* of technical values in the content of the film, as well as the *failure* of aesthetic technologies in Aikawa’s description of its production, we are still presented with two microcosms of his

broader theory of technology at work—the integrated complex of management and industrial technologies of the engine factory and the complex of aesthetic and material technologies that constitute the overall cultural technology of the *bunka eiga*. In these technological microcosms, we see how various technologies worked together in producing certain values and sensations conducive to the war effort. Thus technology in wartime Japan entailed more than just the production of war machines and materials, but the very production and mobilization of diverse national subjects through economic, political, administrative, and as shown by this chapter, cultural technologies as well. This mobilization and production through multiple technologies in turn tried to co-opt and obliterate all other forms of political practice that threatened to challenge the formation of an “organic,” total-war system.

**CHAPTER FOUR**  
**PARA-EXISTENTIAL FORCES OF INVENTION: NAKAI MASAKAZU'S**  
**THEORY OF TECHNOLOGY AND CRITIQUE OF CAPITALISM**

**I. INTRODUCTION**

***Re-envisioning Technology in Prewar and Wartime Japan***

“Technology” in 1930s Japan not only meant tools, machines and objective techniques of production, but also included a practical, subjective and ethical dimension as well.<sup>1</sup> To give an example, the Kyoto School philosopher/state ideologue, Miki Kiyoshi wrote in his 1938 essay, *Gijutsu Tetsugaku* (Philosophy of Technology), “Technology is the act of making things. The common essence of technology is to make things, whatever they may be, whether they are tools, machines, mental and bodily forms, social systems or ideas.”<sup>2</sup> Technology was equated with all kinds of creation and

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<sup>1</sup> See Koschmann, 139-172 and Iwasaki Minoru, “Desire for a Poietic Metasubject: Miki Kiyoshi’s Technology Theory,” in Yasushi Yamanouchi, J. Victor Koschmann, and Narita Ryuichi, eds., *Total War and ‘Modernization,’* (Ithaca: Cornell University East Asia Program, 1998), 159-180.

<sup>2</sup> Miki Kiyoshi. “Gijutsu tetsugaku” [Philosophy of Technology] in *Miki Kiyoshi zenshū* (The Collected Works of Miki Kiyoshi), (Tokyo: Iwanami Shoten, 1966-68), 7:220 (hereinafter referred to as *MKz*). Miki’s idea of technology as concrete activity has its roots in both the philosophy of Nishida Kitarō, Heidegger’s phenomenology, and Marxism. A key concept of Nishida philosophy is what he later summed up as *kōiteki chokkan* (active intuition), which designates what might come before or after the subject—“subject” as ecstatic, transformative poiesis that is the complete *annihilation* of any reserve which can posture as an autonomous, rational, or transcendental subject beyond the concrete, singular expressions of bodily existence in the world. Nishida devotes hundreds of pages in trying to articulate this idea of “subject” as poiesis, which I cannot do justice to here; however the essays, “Kōiteki chokkan” and “Ronri to seimei” [Logic and Life] are a good place to start for more on this thought, which clearly influenced Miki’s wide definition of technology as production of all aspects of life, including the subject itself. However, many people—particularly Marxists—criticized Nishida’s philosophy as idealist or mystical. Miki himself turned to Marxism, helped found the Japanese Communist Party-supported *Purorataria Kagaku Kenkyūjo* [Association for Research in Proletarian Science] in 1929, an organization of Marxist intellectuals from different fields dedicated to a historical-materialist understanding of society, and he wrote for the journal

production; not only economic but scientific, cultural, intellectual, and institutional production, and even the production of citizens and subjects as well. Many intellectuals looked at technology not simply as machines for building a modern infrastructure, increasing wartime munitions production and developing natural resources, but also as encompassing creativity and imagination, inter-subjectivity and self-creation, sensuous being and existence, and socially transformative action as well.<sup>3</sup> In sum technology did not merely

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*Purotaria kagaku* (Proletariat Science). Miki also published a translation of Part One of Karl Marx's *The German Ideology* in 1930 for Iwanami. His essays during this period share Marx's rooting of all thought and production in the concrete, practical nature of human existence. For example, see "Ningengaku no Marukusuteki Keitai" [The Marxist Form of Anthropology] in *MKz*, vol. 3, 5-41. Thus through an engagement with Marx's early works, Miki further developed a practical notion of technology that was different from the conventional understanding of technology as material means of production.

<sup>3</sup> The origins of this wider discourse of technology are, of course, not just philosophical but lie elsewhere as well, such as in the spread of Fordism, Taylorism and scientific management in the face of massive labor unrest; the influential technocracy movement among engineers and industrialists in the United States; the rapid building of a "proletariat culture" based on heavy industry and technology in the Soviet Union; and the German discourse around technology in the early 20<sup>th</sup> century, which equated technology with culture and self-creation.

For more on the history of Taylorism in Japan, see Tsutsui.

For an overview of the technocracy movement in Japan, see Ôyodo Shôichi, *Gijutsu kanryô no seiji sankaku: Nihon no kagaku gijutsu gyôsei no makuaki* [The Political Participation of Technology Bureaucrats: The Beginnings of the Japanese Science-Technology Administration] (Tokyo: Chuô Kôronsha, 1997).

*Yuibutsuron Kenkyû* [Research on Materialism], the journal of the research group of the same name closely covered the rapid industrialization plans of the Soviet Union, Soviet aesthetics and science, as well as debates surrounding technology occurring there. In fact the journal was the site of the "*Gijutsuron ronsô*" (debate on the theory of technology) among leftist intellectuals such as Aikawa Haruki, Oka Kunio, Tosaka Jun and Nagata Hiroshi in the early 1930s. This debate focused on the potential for revolutionary change of technology, which hinged on its definition: was technology merely the neutral "system of the means of production" whose productive power the proletariat instrumentally seize in order to build the socialist society or did technology also include the various subjective, creative energies and techniques of the people as well? The former view was the dominant, mechanistic Marxist view of technology as the benchmark for the specific mode of production of a society (feudal, capitalist, socialist), which in turn is reflected in culture, institutions and ideology. The latter view, however, roots the irreducible creative energies of the proletariat in their multi-faceted, sensuous negotiations with their environment, which has been so permeated by modern technology so as to affect the very way they interact with and change society. Thus this view suggests that technology is not just neutral machines and processes that need to be seized for revolutionary change but also need to be radically changed themselves in accordance with the multiple, creative "technics" of the masses, since technology itself is not neutral and is an integral part of capitalist management. See Nakamura, Shima, and Kozai Yoshishige, *Senjika*

refer to an external reality of automated and impersonal machines, mechanisms, structures, and systems but also to the very existential comportment of human beings in the modern world—what the philosopher, Don Ihde, aptly describes as the “existential technics” of sensuous praxis and creation amidst a world saturated by technology.<sup>4</sup>

In fact with the outbreak of the China-Japan War in 1937, many intellectuals and “reform bureaucrats” (*kakushin kanryô*) actively envisioned the construction of a “New Order in East Asia” based on a wider notion of technology as including human will and the production of all areas of life. In different ways, they incorporated a wider idea of technology as the basic framework for society and fundamental comportment of human subjectivity into their plans for constructing a modern, self-sufficient, rational, and non-capitalist community in East Asia.<sup>5</sup> Such a community would both fulfill the

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*no yuibutsuronja-tachi* [The Materialists of the Wartime Period] (Tokyo: Aoki shoten, 1982). For more on the “instrumentalist,” “substantive,” and “critical” theory of technology, see Feenberg, 3-20.

The idea of technology as encompassing all creative and productive work also had its origin in German philosophies of technology. Eduard von Mayer, Eberhard Zschimmer, Friedrich Dessauer, Werner Sombart, and Martin Heidegger are only some of the thinkers involved in what Dessauer later called the *Streit um die Technik* (struggle over technology) in the early twentieth century. Most of these works were read and cited by Japanese intellectuals, and even translated into Japanese. For an introduction to this thought in Germany as well as similar intellectual trends in the West, see Hård and Jamison. For an overview of how German thinkers on technology easily reconciled an ultra-nationalist romanticism with technological rationality, see Herf. For an introduction to Heidegger’s thinking on technology and his project of establishing an alternate metaphysics, see Michael Zimmerman *Heidegger’s Confrontation with Modernity: Technology, Politics, Art*, (Bloomington: Indiana University Press, 1990).

<sup>4</sup> Don Ihde, *Existential Technics*, (Albany: State University of New York Press, 1983). Taking a cue from Lewis Mumford’s *Technics and \_\_\_\_\_* series, Ihde uses the term “technics” rather than “technology” or “technique” because the term “technology” only captures the “hardware” meaning of technology rather than the practical one, while the term “technique” is too abstract and can refer to any set action without a material referent. See Ihde, *Ibid.*, 1.

<sup>5</sup> For an introduction in English to some of these renovationist bureaucrats who emphasized the creative, spiritual and cultural aspects of technology and their efforts to propagate an ethics of technology as the basis for a “New Order for Science and Technology” in East Asia, see Mimura, “Technology Bureaucrats,” 97-116. See also Kawahara and Furukawa, “Shôwa senchûki.” While the above works on these officials in the *Kôain* (Asian Development Board)

imperialist, wartime goals of Japan while simultaneously thriving upon the multiple, creative, *technological* energies of its people. Thus they worked toward a fascism that was not merely the use of overt violence, repression and exploitation to control all aspects of life but also the employment of techniques to mobilize human creative energy and desire towards the production of active subjects in service of the state and empire.<sup>6</sup>

However, despite the context of a growing militarism and imperial fascism in the 1930s, which often appropriated these discourses of technology as practical, sensuous activity into technocratic visions of a hyper-productive society or justifications for a brutal Japanese imperialism, they did not inherently lead to such complicity. Other notions recognizing the potential of “mass technology” to challenge Japanese fascism and the growing wartime rationalization of society by transforming human sensation and subjectivity towards social change or critique existed during this period.<sup>7</sup>

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and *Kikakuin* (Cabinet Planning Board) emphasize their ideas and policies of creating a technocratic, imperialist order in East Asia through the rule of elite, “creative” engineers and experts, they do not delve into the wider discourse of technology as active, subjective production of all areas of life, which informs their thought and policy.

<sup>6</sup> I characterize fascism not only as the employment of power, violence and force for political ends, the spiritualist promotion of a unified, organic community over the individual or a multiplicity of groups, and the rejection of class struggle, parliamentary politics, and capitalism, but also as the active mobilization of the creative energies of the people to revolutionize the social order. For more on such rational techniques by government and civic leaders in Japan to integrate women, students, workers, and others into larger groups, make them adopt scientific methods, and settle conflicts under the purview of state institutions, for example, see Yamanouchi, “Total War and Mobilization.” Thus I disagree with the modernization school of thought represented by thinkers such as Maruyama Masao who characterize Japanese fascism narrowly as the repression of subjective freedom and the failure to develop a moral, private sphere separate from the state. Maruyama therefore focuses on the so-called particular characteristics of Japanese fascism such as emperor-centered familialism and agrarianism, and ignores the many efforts by bureaucrats and intellectuals to incorporate and mobilize “active and free subjectivity” into the imperial project itself, many of which are continuous with post-war Japanese efforts by many of the same people to create a “democratic” and prosperous Japan. See Maruyama, “Theory and Psychology of Ultra-Nationalism” and “The Ideology and Dynamics of Japanese Fascism,” 1-24 and 25-83.

<sup>7</sup> For example, see Tosaka, 231-297.

## ***Nakai Masakazu's Theory of Technology and Critique of Japanese Society***

This essay will look at the thought and practice of one such philosopher/aesthete, Nakai Masakazu, from 1929 until his arrest in 1937. I choose Nakai for two reasons. First, he develops a wider notion of technology as sensuous, creative activity that avoids the pitfalls of similar discourses of technology that equate the productive, technological subject with the mobilized subject of Japan's total war system in East Asia. He does so by developing concepts such as the "projective structure of consciousness," the inventive "middle," "technological time," the new sensorial formations" of film, and the "bodily technologies" of sports. In various ways, these concepts seek to highlight and stimulate the critical, transformative, technological energies of the masses themselves, which were increasingly subject to ultra-nationalist ideologies and technocratic efforts by the Japanese state to organize all aspects of life.<sup>8</sup> By looking at Nakai's thought on technology, I seek to show an alternative to both ultra-nationalist and technocratic discourses of technology, productivity, and mobilization during the 1930s. While the Japanese state attempted to absorb the political energies of the people within the technological imaginary, Nakai and others attempted to show the utter impossibility of stamping out the inventive, creative forces that contradicted or departed from that imaginary.

Secondly, I choose Nakai since his object of critique is neither just an irrational, ultra-nationalist fascism nor the complete technocratic, rational

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<sup>8</sup> I am using "ultra-nationalism" to describe the emperor worshipping, agrarian, and spiritualist ideologies of the far right in Japan during this period, which Maruyama sees as the principal characteristic of Japanese fascism. See Maruyama, "Theory and Psychology of Ultra-Nationalism." "Technocratic efforts" describes the rational techniques of Japanese fascism used to mobilize active popular participation.

reorganization of society for maximum productivity, but also the very foundation of these two social tendencies—capitalism and the logic of profit itself. In the context of an increasingly violent, emperor-centered fascism, and efforts by technocrats, intellectuals and businessmen to re-organize society for war, Nakai instead focused more on the “specialization” and “commodification” of human beings under capitalism, as well as on how these subvert the possibility for radical critique and social transformation. Rather than just looking at techniques and technologies of maximizing worker performance or at spiritualist ideologies of mobilization, Nakai’s critique of capitalism highlights other ways by which the creative, technological energies of the people were restrained and managed. His insistence on the central role of capitalism in fascism adds another dimension to our understanding of the disciplinary techniques of Japanese fascism. He suggests that the technological imaginary of the state and capital was not something particular to fascism but something broadly characteristic of capitalist societies at the time. Thus, in order to criticize that imaginary, it was necessary to understand some of the cultural dynamics of capitalism as well.

## II. HISTORICAL PROFILE<sup>9</sup>

### *Nakai and the “Aesthetics and Critique” Group*

Nakai entered the philosophy department of Kyoto Imperial University in 1922 and studied aesthetics under Fukada Yasukazu, one of the founders of the discipline. After finishing his thesis on Kant’s *Critique of Judgment* in 1925, he stayed on as a graduate student and served as editor of the journal *Tetsugaku Kenkyû* (Research in Philosophy), one of Japan’s leading philosophy journals, for several years. During this period, he attended the classes of famous Kyoto School philosophers such as Nishida Kitarô, Tanabe Hajime, Hatano Seiichi, and Kuki Shuzô. His classmates included other well-known philosophers such as Miki Kiyoshi, Tosaka Jun, Watsuji Tetsurô, Nishitani Keiji, and Kôsaka Masaaki.<sup>10</sup> Continuing his high school passion for sports, he was also an active member of the university’s crew team, often serving as coxswain, which is clearly evident in his later essays on modern sports. During this period, he not only studied the works of classical philosophy (Plato, Aristotle, Leibniz, Kant, Fichte, Hegel) but was also exposed to contemporary movements in European philosophy such as neo-

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<sup>9</sup> For overall biographical information, I have consulted Kinoshita Nagahiro, “Nakai Masakazu no ikikata” (“Nakai Masakazu’s Way of Life”) in Kinoshita Nagahiro, *Nakai Masakazu: atarashii “bigaku” no kokoromi* [Nakai Masakazu: An Experiment towards a New “Aesthetics”], (Tokyo: Riburopôto, 1995), 119-193. See also Fujita Teiji, “‘Bi Hihyô,’ ‘Sekai Bunka,’ ‘Doyôbi’ no tanjô: Nakai Bigaku no Shûhen 2” [The Origin of ‘Aesthetics and Critique,’ ‘World Culture,’ and ‘Saturday’] in Nakai Masakazu Geppô 2 [Nakai Masakazu Monthly Bulletin 2] in *Nakai Masakazu zenshû* [The Collected Works of Nakai Masakazu] (Tokyo: Bijutsu Shuppansha, 1981), vol. 2, hereafter referred to as *NMz*.

<sup>10</sup> He was particularly close to Miki and Tosaka. See Nakai Masakazu, “Miki to Kosei” [Miki and Individuality], *NMz* 1:339-343, and Nakai, “Tosaka-kun no Tsuioku” (“Recollections of Tosaka”) in *NMz* 1:344-48. For Nakai’s reflections on his time as editor of *Tetsugaku Kenkyû*, see Nakai, “Kaiko jûnen: omoiizuru mama ni” [Ten Years in Retrospect: As I Recall it] in *NMz* 1:349-356.

Kantianism (Herman Cohen, Heinrich Rickert, Ernst Cassirer), phenomenology (Adolf Reinach, Edmund Husserl, Martin Heidegger, Oskar Becker), and Marxism (Karl Marx, Vladimir Lenin, Georg Lukacs).

As a graduate student in aesthetics and philosophy at Kyoto Imperial University in 1930, Nakai organized a small research group of young intellectuals and artists interested in the contemporary mass aesthetics of modern technology as manifested worldwide in film, photography, radio, architecture, print, and design, for example. By this time, of course, Japan already had a thriving mass media centered on film, radio, magazines and newspapers, as well as an urban consumer culture of department stores, large-scale advertising, cafes, bars, restaurants, movie theaters, concert halls, sports stadiums, and entertainment districts. Together, this group published the monthly journal, *Bi Hihyô* (Aesthetics and Critique) from 1930 to 1934, which engaged with contemporary European modernist trends such as Surrealism, Bauhaus, *Neue Sachlichkeit* (neo-objectivism), montage film theory, reportage literature, and Russian avant-garde film, among others.<sup>11</sup> It was here that Nakai published many of his essays on the sensation and subjectivity of mass technological modernity, and “technological beauty and time” as manifested in film, music, drama and literature. In 1932, Nakai and another member of the group, Tsujibe Masatarô, worked with the composer-violinist Kishi Tatsushi, Andô Haruzô (engineer at Asahi’s Osaka Planning

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<sup>11</sup> Bi Hihyôsha, *Bi hihyô fukuseiban* [“Aesthetics and Critique” Reprint Edition] (Tokyo: Waseda Daigaku Toshokan). For a general introduction to the journals and magazines Nakai was involved in, see Hirayabashi Hajime, “‘Bi hihyô,’ ‘Sekai bunka,’ to ‘Doyôbi:’ Chishikijin to shomin no teikô” (‘Aesthetics and Critique,’ ‘World Culture,’ and ‘Saturday:’ Intellectuals and Mass Resistance) in *Senjika teikô no kenkyû I: kiriutosha jiyûshugisha no bâi* [Research on Wartime Resistance I: The Case of Christians and Liberals], (Tokyo: Misuzu shobô, 1978). For a treatment of Nakai and contemporary European modernist trends in Japan, see Takashima Naoyuki, *Nakai Masakazu to sono jidai* [Nakai Masakazu and His Age], (Tokyo: Seikyûsha, 2000).

Department who experimented with color film technology), and Naitô Kojirô (composer in Kyoto University's Psychology department experimenting with what he called, "color music") to produce two avant-garde films, "Poem of the Sea" (*Umi no shi*; 1932) and "Ten-Minute Meditation" (*Juppunkan no shisaku*, 1932), which were Japan's first color films.<sup>12</sup>

### ***Nakai and the Kyoto Consumer Cooperative Movement***

Against the background of the Great Depression, the late 1920s and early 30s was also a period of widespread labor unrest and social protest in Japan, as well as increasing efforts by the government and business to co-opt and repress these movements. In Kyoto major labor strikes broke out during this period, such as the Kanebô strike and City Bus Strike, and broad-based movements around lifestyle issues such as rent and food prices were organized as well.<sup>13</sup> For example, the consumer cooperative movement was quite strong during this time, culminating in the formation of the Kyoto Consumer Cooperative (*Kyoto Shôhi Kumiai*) in April 1932—a coalition of consumer cooperatives such as the Kyoto Workers Consumer Cooperative (*Kyoto Musansha Shôhi Kumiai*), Kyoto University Students Consumer Cooperative (*Kyôdai Gakusei Shôhi Kumiai*), the Suiheisha Consumer Cooperative (cooperative of *burakumin*) and the Korean Consumer Cooperative (*Chôsenjin Shôhi Kumiai*).<sup>14</sup> Nakai's close friend and colleague,

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<sup>12</sup> See Nakai, "Shikisai Eiga no Omoide" ("Reminiscences on Color Films") in *NMz* 3:232-235, and Iwamoto Kenji, *Nihon eiga to modanizumu, 1920-1930* [Japanese Film and Modernism, 1920-1930], (Tokyo: Riburopôto, 1991), 205-209.

<sup>13</sup> For more on local labor struggles, see Watanabe Tôru, *Kyoto chihô rôdô undôshi* [History of the Labor Movement in the Kyoto Region], (Kyoto: Kyoto chihô rôdô undôshi hensankai, 1959).

<sup>14</sup> For a history of the consumer cooperative movement in Japan, see Yamamoto Osamu, *Nihon seikatsu kyôdô kumiai undôshi* [History of the Consumer Cooperative Movement in Japan], (Tokyo: Nihon hyôronsha, 1982).

the lawyer Nose Katsuo, helped form and head the Kyoto Household Consumer Cooperative (*Kyoto Katei Shôhi Kumiai*) in May 1930, which consisted mostly of intellectuals, office workers, and artists. Nakai participated as an active member of the board of directors. Nose then became the chairman of the coalition cooperative, which reached its peak in the *Kome Yokose* (“Give back the rice”) movement in 1932.<sup>15</sup> This was a national movement among cooperatives that demanded the government to release stored rice at cheap prices, and in Kyoto it culminated in a broad-based *Kome Yokose*/Anti-war demonstration on August 1, 1932 (International Anti-war Day). The movement was quite successful and forced the government to release its stored rice to the cooperatives cheaply. Nakai took part in these activities, helping to deliver and distribute this rice to communities, for example. This struggle against the increased commodification of the basic necessities of everyday life, as well as their subjection to the technical laws of the market and government-business collusion clearly influenced Nakai’s insistence on a critique of capitalism in his writings throughout the 1930s.<sup>16</sup>

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<sup>15</sup> For a history of this movement throughout Japan, see Yamamoto, *Shôwa kome yokose undô no kiroku* [A Record of the Shôwa ‘Give Back the Rice’ Movement], (Tokyo: Hakuseki shoten, 1976).

<sup>16</sup> For more on Nakai’s activities and the social context in Kyoto, see Yoshida Masazumi, “Seikatsu ni taisuru yûki (zenpen)—Jûgo-nen sensô shoki Kyoto no shôhi seikatsu undô to zasshi ‘Bi Hiyô’ shûdan ni okeru ‘gakushû’ no ichi: ‘Nakai Masakazu-tachi to <Teikô no gakushû> o meguru shomondai’ (I)” (“Courage to Live (Part 1)—The Position of ‘Learning’ in the Co-operative Movement and the ‘Aesthetics/Critique’ group in early 1930s Kyoto: ‘Nakai Masakazu and Some Issues on <Learning for Resistance> (I)’”), *Kyoto daigaku shôgai kyôikugaku toshokan jôhôgaku kenkyû* [Kyoto University Journal for Life-long Learning and Library Informatics] 2 (March 2003): 7-38. For more on Nakai’s activities in the consumer cooperative movement, see Matsuoka Yoshikazu, “Nakai Masakazu to shôhi kumiai undo” (“Nakai Masakazu and the Consumer Cooperative Movement,” Nakai Masakazu Geppô 4 [Nakai Masakazu Monthly Bulletin], 1-2, in *NMz* 4, and Okamura Keiji, “Kyoto katei shôhi kumiai to Nakai Masakazu” (The Kyoto Household Cooperative and Nakai Masakazu) in Okamura, *Hyôgen to shite no toshokan* [The Library as Expression], (Tokyo: Seikyûsha, 1986), 131-151. For more detailed accounts of the Kyoto Consumer Cooperative movement, including accounts by and about Nose, see Kyoto seikatsu kyôdô kumiai, ed., *Deruta kara no shuppatsu—Seikyô undo to senkakusha Nose Katsuo* [Setting Off From the Delta—The

### ***The Rise of Rationalization and Militarism during the 1930s***

At this time also, the *Sangyô gôrika* (industrial rationalization) movement among bureaucrats, intellectuals and businessmen became institutionalized in 1930 with the establishment of the Temporary Industrial Rationalization Bureau by Prime Minister Hamaguchi Osachi to coordinate state rationalization efforts.<sup>17</sup> This movement promoted the adoption of scientific production methods to increase efficiency, improve product quality and decrease costs; the introduction of new management techniques to increase worker productivity and labor-capital cooperation; and the integration of businesses to eliminate waste and competition. “Rationalization” policies extended to all areas of life, not just the factory. Women’s organizations, agricultural cooperatives, schools, village councils, and interest groups were all subject to efforts by the government and civic leaders to integrate them into larger units, adopt scientific methods and techniques, and to settle conflicts under the purview of state institutions during a time of “national crisis.” As we shall see, Nakai also focused on this type of rationalization in his writings.

A more fanatical and militarist discourse of “national crisis” and “state renovation” (*kokka kaizô*) arose with the “Manchuria Incident” in September 1931 and the subsequent creation of Manchukuo in 1932. In April 1933 the famous *Takigawa Jiken* (Takigawa Incident) occurred, in which the Kyoto University law professor, Takigawa Yুক্তি, was discharged at the request of

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Consumer Cooperative Movement and its Pioneer, Nose Katsuo], (Kyoto: Kamogawa shuppan, 1989), *Kaisô no Nose Katsuo: Tsuitô bunshû* [Retrospective of Nose Katsuo: Memorial Essay Collection] ed. Nose Katsuo sensei tsuitô bunshû shuppan jikkô iinkai (Tokyo: Seibundô, 1981), and Kurashi to kyôdô kenkyûjo kyôdô kumiai shi kenkyûkai, “Rekishî shiryôshû dai nana gô: Nose Katsuo to Kyoto (katei) shôhi kumiai—senzen Kyoto no shôhi kumiai 2” (Historical Documents Collection No. 7: Nose Katsuo and the Kyoto (Household) Consumer Cooperative 2) in *Kurashi to kyôdô no kenkyûkai tsûkan 35 go* [Livelihood and Community Research Group Vol. 35], (Kyoto: Kurashi to kyôdô no kenkyûjo, 2004).

<sup>17</sup> For more on this movement, see Tsutsui, 58-89.

the Education Minister, Hatoyama Ichirô, for his writings on the Japanese legal system, which did not recognize the supreme, divine position of the emperor, and therefore were deemed “communist.”<sup>18</sup> Professors and students in the Kyoto-Osaka area (including Nakai) mobilized heavily against this action, which eventually resulted in the firing or resignation of two-thirds of the law department and thus a repression of open dissent at Kyoto University and among students and intellectuals in general. The strong Marxist cultural movement revolving around groups such as the *Purotaria Kagaku Kenkyujô* (*Puroka*, Association for Research in Proletarian Science), *Nihon Purotaria Eiga Renmei* (*Purokino*, Proletariat Film League of Japan), and *Zen Nihon Purotaria Geijutsu Dantai* (NAPF, the Federation of Japanese Proletariat Artists) was also repressed during this period, taking away another forum for resistance among intellectuals.

### ***Nakai and the “World Culture” Group***

After serving as a lecturer at Osaka Sôai Women’s Professional College, Nakai became a lecturer at the Kyoto University Philosophy department in 1934. In the course of his regular activities with other members of *Bi Hihyô* and its expansion to include other intellectuals and activists involved in the consumer cooperative movement and the Takigawa Incident, the journal took on a more openly political and anti-fascist character. Together with Nose, Tsujibe, and other leftist intellectuals and students from different fields such as Kuno Osamu (philosophy), Shinmura Takeshi (French literature), and Taketani Mitsuo (physics), they founded the journal, *Sekai*

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<sup>18</sup> For more on this incident, see Matsuo Takayoshi, *Takigawa jiken* [The Takigawa Incident], (Tokyo:Iwanami shoten, 2005).

*Bunka* (World Culture).<sup>19</sup> This signified the beginning of what the Kyoto Regional Court Investigator, Shimokawa Gen, and special police referred to in their documents as the “Popular Front and Culture Movement” (*Jinmin sensen to bunka undô*) in Japan.<sup>20</sup>

*Sekai Bunka* served primarily as a vehicle to introduce the events of the various anti-fascist popular front movements in Europe and the cultural thought arising from them. Special attention was given to news on the Popular Front movements in France and Spain, which were broad anti-fascist, leftist coalitions that went on to win elections in 1936, as well as events in the Soviet Union, the U.S., and England.<sup>21</sup> The journal was quite eclectic, publishing translations of French Popular Front writers such as Romain Rolland and Andre Gide, and exiled German intellectuals such as Max Horkheimer and Friedrich Wolf; introductory essays on new American drama and film; analyses of Tokugawa and Meiji society; interpretations of Bergsonian philosophy; and debates on the literature of Lev Shestov and Andre Gide, as well as many book, movie, music and play reviews. It was here in 1936 and 1937 that Nakai published his most famous essay, *linkai no Ronri* (The Logic of Committee), where he laid out his theory of organizing a non-technocratic society rooted in the specific needs and desires of different social subjects, and imbued with a

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<sup>19</sup> Sekai Bunkasha, *Sekai bunka fukuseiban* [‘World Culture’ Reproduced Edition], (Tokyo: Shôgakkan, 1975).

<sup>20</sup> Shimokawa Gen, *Jinmin sensen to bunka undo*. [The Popular Front and the Cultural Movement], (Kyoto: Tôyô bunkasha, 1986). See also Yamazaki Masako, *Kyoto jinbun gakuen seiritsu o meguru senchû sengô no bunka undô* [The Cultural Movement of the Wartime/Post-war Period over the Formation of the Kyoto Arts and Letters Academy], (Tokyo: Kazuma shobô, 2002).

<sup>21</sup> For more on the Popular Front movement, see *The French and Spanish Popular Fronts*, ed. Martin Alexander and Helen Graham (Cambridge: Cambridge University Press, 1989) and *The Popular Front in Europe*, ed. Helen Graham and Paul Preston (New York: St. Martin’s Press, 1987), and Julian Jackson, *The Popular Front in France: Defending Democracy, 1934-38* (Cambridge: Cambridge University Press, 1988).

dynamic, historically immanent “critical nature” (*hihansei*) and “cooperative nature” (*kyôddôsei*).<sup>22</sup> In fact if one were to perhaps sum up this highly eclectic, cooperative-journal, one could describe it as a group of diverse intellectuals exploring new theories, methods, and forms of political practice and organization different from the classist formulas of orthodox Marxism and, of course, the spiritualist, culturalist ideologies of ultra-nationalist fascism.<sup>23</sup>

### ***Nakai and the Mass Newspaper, “Saturday”***

In 1936 Nose, Nakai, and several others from the *Sekai Bunka* group joined up with the Shochiku film actor, Saitô Raitarô, who from 1935 published a small agitprop magazine for film studio workers called *Kyoto Sutajio Tsûshin* (Kyoto Studio News), to start the bi-weekly newspaper tabloid, *Doyôbi* (Saturday).<sup>24</sup> According to Kuno, one of its active members, the idea behind the newspaper was to somehow break out of the small, leftist, theoretical journal format of other intellectual journals such as *Yuibutsuron Kenkyû* (Studies in Materialism), *Gakusei Hyôron* (Student Review), and *Sekai Bunka*.<sup>25</sup> More importantly, the newspaper sought to display the various energies and dimensions of the people themselves, and it was based mostly on anonymous contributions (by issue 42, 70% of the articles were

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<sup>22</sup> Nakai, “linkai no ronri,” [The Logic of Committee] *NMz* 1:98, 99. I will analyze Nakai’s anti-technocratic theory of political practice and collective organization later.

<sup>23</sup> See Yoshida, “Seishin no meiseki – ‘Sekai Bunka’ shûdan no teikô to gakushû: Nakai Masakazu tachi to <teikô no gakushû> o meguru shomondai (II)” (“The Clarity of Reason” – The Resistance and Learning of the ‘World Culture’ Group: Nakai Masakazu and Some Issues on <Learning for Resistance> (II)”) *Kyoto daigaku shôgai kyôikugaku toshokan jôhôgaku kenkyû* 3 (March 2004):35-59.

<sup>24</sup> Doyôbisha, *Doyôbi fukkokuhan* [‘Saturday’ Reprinted Edition], (Tokyo: Sanichi shobô, 1974). For more on Saitô, *Kyoto sutajio tsûshin*, and *Doyôbi*, see Itô Shunya, *Maboroshi no “Kyoto sutajio tsûshin” he* [Towards the Phantom “Kyoto Studio News”], (Tokyo: Renga shobô shinsha, 1978).

<sup>25</sup> Kuno Osamu, “Bunka shimbun ‘Doyôbi’ no fukkoku ni yosete” (“On the Occasion of the Reprint of the Cultural Newspaper, ‘Saturday’”) in Doyôbisha, 1.

contributions).<sup>26</sup> Each edition had a section on society, culture, film, women and leisure. Reviews of the latest Frank Capra, King Vidor or Shimizu Hiroshi film; articles on the problems of Japanese working wives and working couples; complaints about local government corruption, living conditions and food prices, and the bad quality of journalism; gossip on the latest fashions, recipes and cosmetics; news on worker sports cooperatives or popular photography in the Soviet Union; introduction to the leaders and intellectuals of the Popular Front in France; and reports on the Spanish Civil War were just a small sample of what filled each six-page edition. Nakai and Nose wrote the first-page editorials, which were accompanied by a modernist print and headline setting the tone for each issue (for example, “We should not let go of the fact that we are living here and now”).<sup>27</sup> They also edited each issue, while Saitô took care of the printing, distribution, sales, and advertising. Having only a fourth grade education himself, Saitô constantly made sure that Nakai and others wrote in simple, understandable Japanese. Newspaper circulation reached eight thousand copies, which was quite large for the period. It was sold at bookstores and magazine stands for three *sen* and distributed freely to coffee shops and restaurants in the Kyoto-Osaka area.<sup>28</sup> The tabloid can be seen as an attempt to materialize a new mass subjectivity infused with a “cooperative nature” and “critical nature” that were firmly rooted in the everyday practices, techniques, and customs of the people.<sup>29</sup> It was published during a time when the space for critique was either co-opted or repressed by an increasingly virulent nationalism (the 2.26 right-wing coup attempt occurred

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<sup>26</sup> Ibid., 3.

<sup>27</sup> July 17, 1936 issue. See Doyôbisha, 17.

<sup>28</sup> Saitô Raitarô, “‘Doyôbi’ ni tsuite” (“Regarding ‘Saturday’”) in Doyôbisha, 8-10.

<sup>29</sup> This is the main theme of “linkai no ronri” (“The Logic of Committee”) published in *Sekai Bunka* in 1936. Nakai, “linkai no ronri,” *NMz* 1:46-108.

in 1936 and war broke out with China in 1937), stronger efforts by the state to mobilize and rationalize all aspects of society, and as Nakai pointed out, a commodified, capitalist reality dominated by huge monopolies and bureaucracies. In November 1937, however, Nakai and others associated with *Doyôbi* and *Sekai Bunka* were arrested under the Peace Preservation Law, and both publications were shut down for supposed involvement with the Comintern's organization of an international People's Front against fascism.<sup>30</sup>

### III. NAKAI'S CRITIQUE OF CAPITALISM

#### ***The Commodified and Specialized Nature of Life Under Capitalism***

Before discussing Nakai's theory of technology, we must first describe Nakai's object of critique—what he sums up in “The Logic of Committee” as the “commodified nature” and “specialized nature” of life under heavy industrial monopoly capitalism.<sup>31</sup> Many of Nakai's commentators emphasize his thought and practice during this period as one of building an oppositional “embankment” against an increasingly repressive, militarist, and ultra-nationalist fascism, and they fail to establish the central importance of capitalism to his critique.<sup>32</sup> As I will show, however, the critique of capitalism

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<sup>30</sup> For more on the popular front movement in Japan during the 1930s, see Inumaru Giichi. *Nihon jinmin sensen undôshi* [History of the Popular Front Movement in Japan], (Tokyo: Aoki shoten, 1978).

<sup>31</sup> *Ibid.*, 95.

<sup>32</sup> There are many commentators on Nakai, however, Kuno, the editor of Nakai's complete works, has played a major role in building an image of him as a unique “resistor” against an increasingly fanatical, irrational fascism (i.e. the “dark valley” of the Shôwa period). Unfortunately, this occludes the central role of capitalism in Nakai's conceptualization and critique of fascism. For example, see the essays on Nakai in Kuno Osamu, “Sanjû nendai no shisôka tachi” (“Intellectuals of the 1930s”) in *Kuno Osamu shû* [The Works of Kuno Osamu] (Tokyo: Iwanami Shoten, 1998), 3: 160-192. For more examples of this approach, see also Kuno, *Fashizumu no naka no sen kyûhaku sanjû nendai*, [The 1930s Amidst Fascism], (Tokyo: Riburopôto, 1986) and *Kuchibue to gunka: tennôsei fashizumu no sôbô* [Whistles and Combat

itself, which restrained or co-opted the creative, critical energies of the masses, formed a central part to his thoughts on fascism, technology, and art throughout the 1930s.

Nakai first develops his ideas on modern capitalism in a 1932 essay published in the journal, *Risô* (Ideals). After criticizing philosophers such as Oswald Spengler and Karl Jaspers who “under the guise of an intellectual crisis, curse modernity” in general for its “mechanization and popularization of culture,” Nakai instead focuses on the question of “intellectual mechanization” (*seishin kikaika*) under modern capitalism.<sup>33</sup> “What makes up the largest structure of intellectual mechanization is the specialization of intellectual culture (*seishin bunka*) and its professionalization,” Nakai writes.<sup>34</sup> However, this specialization takes the peculiar form of being a *mass* specialization, making everyone “common laypeople” (*zokushû*) towards each other at the same time, since each person has little or no knowledge of the other’s specialty.<sup>35</sup> For example, philosophy has been professionalized and philosophers take up the particular occupation of teacher to make a living—“thought is an occupation.”<sup>36</sup> Within the specialization of philosophy there are Leibniz specialists, Dilthey specialists, and so on.<sup>37</sup> Based on this professionalization and specialization, philosophers find jobs at educational institutions. The fact that the Ministry of Education, for example, has decided in the past to halve the number of students at liberal arts schools is significant,

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Boots: The Features of Emperor System Fascism], ed. Kyoto Daigaku Shinbunsha, (Tokyo: Riburopôto, 1985).

<sup>33</sup> Nakai, “Shisô-teki kiki ni okeru geijutsu narabini sono dôkô” (Art and its Trends in Intellectual Crisis), *NMz* 2:43.

<sup>34</sup> *Ibid.*, 45.

<sup>35</sup> *Ibid.*, 45.

<sup>36</sup> *Ibid.*, 47.

<sup>37</sup> *Ibid.*, 47.

Nakai notes, since this shows that they recognize that modern society is based on the specialized division of labor. By doing this, they seek to reduce the number of humanities teachers in society.<sup>38</sup>

Nakai then links specialization to the commodification of thought in modern capitalist society. He writes:

To the extent that literature is presented through institutions of profit such as publishing houses, bookstores, magazines, and newspapers, it is a commodity. To the extent that it is a commodity, it is ordered according to the plans of the newspaper or magazine. Something that is regulated by demand (*chûmon*) is a product. There are cases too where literature is sold by means of the ghostwriter, or by using some famous person's name – i.e. by the advertised name (label).<sup>39</sup>

Writers must shape their skills and work according to the specific demands of huge, profit-driven media corporations (such as UFA, Paramount or Nikkatsu in film); the “structure of the demands of patrons and brokers; the editing of newspapers and magazines;” and the specialized market of different commodities.<sup>40</sup> For example:

Huge corporations have already been established [in the film and music industries], which have boards of directors consisting of industrialists. Dividends are announced each year in the newspaper and their stock values rise and fall accordingly. Here a plan is executed according to the intentions of the board of directors and the estimate of the product's value is calculated in terms of money. And if there are strikes, there are also firings.<sup>41</sup>

The very creative energy of art has been permeated by an instrumental logic of profit. Like everyone else, artists must sell their labor power to live—they

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<sup>38</sup> Ibid., 47-48.

<sup>39</sup> Ibid., 49.

<sup>40</sup> Ibid., 53.

<sup>41</sup> Ibid., 50. Brackets mine.

are then re-packaged, commodified, and sold as “stars” or “directors” in the mass market, for example.<sup>42</sup> “At present, all artistic geniuses are specialists, and because they are specialties, they are occupations for livelihood, and because they are occupations, they form their structure of life beneath profit-driven collective organizations,” Nakai adds.<sup>43</sup> Artistic practice is not an individual endeavor divorced from society but rather intertwined with it, and takes the form of an occupation within huge capitalist organizations necessary for life.

As a result of this mass specialization and commodification in modern society, artists, for instance, form “self-enterprising blocks” or associations such as *Teiten* and *Nika*, which link writers and media corporations together and set the collective standards and limits for creative activity in the market by holding large exhibitions of their members’ works, for example.<sup>44</sup> In short artists, writers, and teachers (and their collective organizations) fill specialized niches or “posts” (*busho*) within larger profit-driven bureaucracies and the markets they dominate. Yet as we shall later see, Nakai does not view this “collectivization” merely as negative. He does not seek a return to some romantic, individualist age of art or creativity untainted by capitalism but rather sees a different, critical potential even within such mass intellectual and material mechanization of life (i.e. technology) in modern society. The logic of capital and profit, which permeates the large organizations and technologies that govern all aspects of life, however, restrains the potential for critique and cooperation. In fact they push specialization towards fierce competition and an emphasis on individuality instead. This manifests itself in art as

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<sup>42</sup> Ibid., 51.

<sup>43</sup> Ibid., 51.

<sup>44</sup> Ibid., 53.

“aestheticism” (art for art’s sake), romanticism, or mere self-indulgence, according to Nakai.<sup>45</sup>

He further elaborates on how modern capitalism restrains the critical potential of the masses through specialization and commodification in several essays published in 1936 and 1937, years characterized by an increasingly powerful ultra-nationalism, large-scale roundups of intellectuals and activists, and the beginning of the war with China. In a 1936 *Gakusei Hyôron* essay aimed at young film students, Nakai describes what he calls the “masses as object of profit” or “the masses imagined by capital.”<sup>46</sup>

[The production of film] must have its foundation in the collective and in machinery. In this respect, the current situation is such that film accordingly requires an enormous amount of capital. Capital requires profit and profit forces the masses within the boundaries of capital.... This compulsion of the masses has increased more and more, and it will probably only intensify in the future, with film now entering more into finance capital, and with the tie-ups between newspaper companies, magazine companies, record player companies and the organizations of department store capital. The result we should really pay attention to here is the phenomenon of the consuming masses being mobilized within the plans of the producers. The so-called masses, while being conscious of themselves as consumers, are rather domesticated and disciplined within the systems of producer capital. This discipline is common to the phenomena of journalism, department stores, and film, and its strength will probably only rapidly gain in intensity.<sup>47</sup>

The masses become a “balance co-efficient, which seeks the economic maximum of the two functions of purchasing power and number of consumers.”<sup>48</sup> The creative energies and critical imagination of the consuming

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<sup>45</sup> Ibid., 52.

<sup>46</sup> Nakai, “Kontinyuiti no ronrisei” (“The Logical Nature of Continuity”), *NMz* 3:166.

<sup>47</sup> Ibid., 165-166. Brackets mine.

<sup>48</sup> Ibid., 166.

masses are more and more governed by the needs of the balance sheet, and they are subject to the intense efforts of huge media combines to shape and control them (e.g. through advertising and tie-ups). Nakai therefore encourages film students to instead develop the potential of mass film technology, which can change human, collective sensation towards social critique and transformation (more on this later).

Further exploring how the creative energies of the masses are domesticated by capital, Nakai examines in “The Logic of Committee” how inventive, creative action is governed by “price” and “the nature of buying and selling” (*baibaisei*) in the “current stage of monopoly capital”<sup>49</sup> According to him, people shape and implement their desires largely through the buying and selling of commodities. What cannot be sold “is excluded from the domain of practical existence,” Nakai writes.<sup>50</sup> At a time when nearly everything from the mountains to the rivers and of course, human beings, is commodified, things “undergo a powerful distortion and fall into the realm of non-existence when they lose their buying and selling value,” he adds.<sup>51</sup> Price becomes the chief condition in determining the value of commodities (and human beings), rather than concrete, sensuous human activity.

Nakai explains why commodification restricts the critical energies of the people:

When demand is not accompanied by money, it descends into mere representation, which makes demand unreal and null. This quality of demand or need (*juyōsei*) that forms the primary foundation of technology [i.e. technology as sensuous, creative activity] is divided into either having or not having money. Possessing money, that is to say,

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<sup>49</sup> Nakai, “linkai no ronri,” 97, 98.

<sup>50</sup> Ibid., 96.

<sup>51</sup> Ibid., 96.

demand and need based on money becomes a *real object*. But not possessing money, that is to say, demand based on empty desire, hope, and so on becomes mere representation *temporarily existing* within the self as just a relation between being and thinking.<sup>52</sup>

Similar to his Marxist contemporary in Europe, Georg Lukacs, Nakai argues that a logic of reification restricts the critical energies of the people.<sup>53</sup> Price and value appear to people as external, scientific laws divorced from human activity and control. The fulfillment of human need and desire is subject to price and the possession of money, obtained through selling one's labor. Not only are they governed by the plans of huge corporations but also the very reality of human desire and activity to fulfill that desire is based on capitalist rules of money and price. The result is that human need without money is "unreal" and becomes "mere representation" or contemplation among people.<sup>54</sup> Instead of actively producing all aspects of their lives and fulfilling their needs accordingly, capitalism has forced people's desires into the "structures of buying and selling," which limits that activity to an endless "repetition" of mere reflection on commodities, and the forced sale of labor to purchase them.<sup>55</sup> In short, the constant transformation of everything from things technologically produced in everyday human life into external commodities with prices subject to the laws of the market has engendered an "uncritical nature" among the masses, who are then forced to conform their energies accordingly rather than actively create their own social reality.<sup>56</sup> Yet

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<sup>52</sup> Ibid., 97-98. Brackets mine, emphasis Nakai's.

<sup>53</sup> Georg Lukàcs, "Reification and the Consciousness of the Proletariat" in *History and Class Consciousness: Studies in Marxist Dialectics*, trans. Rodney Livingstone (Cambridge: MIT Press, 1994), 83-222.

<sup>54</sup> Nakai, "linkai no ronri," 97-98.

<sup>55</sup> Ibid., 97, 98.

<sup>56</sup> Ibid., 99. The often-violent process of extracting surplus value from labor in the production of commodities also presumably controls the critical energies of the masses, although Nakai never directly discusses this.

as we shall see, Nakai does not subscribe to the orthodox Marxist view that the masses therefore have “false consciousness” and must be led to the correct path of overthrowing capitalist society. Rather, he always seeks to find potential within the everyday, concrete structures and practices of modern capitalist life that would somehow stimulate a transformative “critical nature” in the masses.

### ***Capitalism and Rationalization***

Nakai also sees capitalism as inseparable from the rational, technocratic organization of Japanese society and its empire then proceeding apace under the leadership of businessmen such as Riken’s Ôkochi Masatoshi and Nissan’s Ayukawa Gisuke, “technology bureaucrats” such as Kishi Nobosuke and Okumura Kiwao, and a vast array of intellectuals.<sup>57</sup> As mentioned above, the government was already promoting new management techniques to eliminate waste and increase worker efficiency, consolidating industries into larger units, and encouraging labor-capital cooperation, mainly through its Temporary Industrial Rationalization Bureau. Control laws designed to rationalize production for war were passed throughout this period for all the major industries such as petroleum, automobile production, and electricity. Nakai analyzes the relation between capitalism and rationalism in a 1937 essay entitled, “Gôrishugi no mondai” [The Question of Rationalism], published in *Gakusei Hyôron*.<sup>58</sup> Nakai first quickly surveys the history of rationalism in relation to different economic formations and shows how it has always been accompanied by irrationalism. For example, Germany’s late

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<sup>57</sup> For more on these bureaucrats, see Mimura, “Technocratic Visions.”

<sup>58</sup> Nakai, “Gôrishugi no mondai” [The Question of Rationalism], *NMz* 1:123-142.

transformation from a commercial-agricultural economy to a heavy industrial one in the nineteenth century manifested itself in thought as a scientific, empirical belief in the rational order of nature (e.g. Kantian thought) and an irrational, semi-religious belief in the practical, individual subject (e.g. Fichte, Nietzsche).<sup>59</sup> This contradiction in fact propelled Germany's transformation into a heavy industrial power—rationalism providing the intellectual basis for scientific-technological development and irrationalism providing the subjective motivation for the German people to work for this transformation. Thus in capitalist development, rationalism and irrationalism are complicit. In fact as Nakai shows, capitalism even promotes irrationalism to sustain its existence in times of crisis.

Rationalism in the 1930s, according to Nakai, reveals itself as a “heavy industrial, financial, block economy opposed to the remnants of liberalism.”<sup>60</sup> “This is the *rationalism of the rationalist movement (gôrika undô)*. It is the rationalization of production and labor in a profit economy, and the rationality demonstrated in advanced Taylorist and Fordist systems, which were established by focusing on the profits of mass production amidst the trials of World War I,” Nakai writes.<sup>61</sup> Rationalism has become “subordinate to the pursuit of blind profit” and tied up with the capitalist commodification and specialization of modern society, according to Nakai.<sup>62</sup> It has therefore become “rationality opposed to human life.”<sup>63</sup> “The more the belts of the

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<sup>59</sup> Ibid., 133.

<sup>60</sup> Ibid., 134.

<sup>61</sup> Ibid., 134. Emphasis Nakai's.

<sup>62</sup> Ibid., 136.

<sup>63</sup> Ibid., 135.

Taylorist systems are rationalized, the busier and more stressed the factory workers need to become,” he writes.<sup>64</sup>

### ***Capitalism and Irrationalism***

As a result of being incorporated into the structures of capitalist commodification and specialization, the people have become less aware of profit as something fundamentally opposed to human beings, according to Nakai. In fact educators and intellectuals have been actively encouraging the pursuit of profit, which only exacerbates discontent among the masses.<sup>65</sup> This discontent and frustration creates the seeds for reviving all sorts of irrational “feudal remnants” amongst the people, which merely serve as safety valves and do not bring about any real change (what Nakai calls, a “refusal without negation”).<sup>66</sup> They therefore express their anger at an abstract, amorphous “rationalism” rather than at the profit-driven institutions of capitalism itself. Nakai gives three examples of such “irrationalist doctrines” propagated by intellectuals during the period: the doctrines of geography, nation and family. The doctrine of geography (*chirishugi*) proclaims that truth is relative to one’s region and therefore, rationalism is something Western and inapplicable to Japan. Nationalism (*minzokushugi*) and the doctrine of the family (*kazokushugi*) say the same thing, but ground truth in the nation and family respectively.<sup>67</sup> These doctrines are often confused and seek to revive feudal traditions of spirit, militarism and hierarchy. When mixed with other influential philosophies in Japan such as Heideggerian existentialism, Sorelian

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<sup>64</sup> Ibid., 135.

<sup>65</sup> Ibid., 136.

<sup>66</sup> Ibid., 136-137.

<sup>67</sup> Ibid., 138.

syndicalism (action for action's sake), and other "philosophies of crises," the frustrations of the people can manifest themselves as "terrorism," according to Nakai.<sup>68</sup> "When [these feelings of desperation] express themselves in action like terrorism, they have the power to destroy everything cultural at one stroke," he adds.<sup>69</sup>

Nakai instead asks the reader to direct his or her attention to how institutions of profit (*rieki kikô*) and rationalism work together with various forms of "irrationalism" to discipline human life. He writes:

First, we should pay close attention to the fact that even though the institutions of profit are what oppose people, these institutions of profit rather make people attack rationalism, which they subordinate, thereby hiding their true form, and that people are also completely falling into this trap.<sup>70</sup>

Japanese capitalism in the 1930s relied on rational techniques of control and management; however, at the same time, capitalist ideologues also encouraged "irrationalist" critiques of rationalism in order to diffuse worker discontent. "The institutions of profit made rationalism, which it controlled, into a target, turned tail, and fled into their safe concrete fortresses. Unaware of this, the intellectual world divided up the work and issued an order of attack against rationalism, which has degenerated into something opposed to human life," Nakai writes.<sup>71</sup> In short, Nakai recognized that capitalist rationalism and irrationalism were complicit in the fascism of 1930s Japan.

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<sup>68</sup> Ibid., 138-139.

<sup>69</sup> Ibid., 140. Brackets mine.

<sup>70</sup> Ibid., 139.

<sup>71</sup> Ibid., 137-138.

### ***The Complicity of Totalitarianism and Capitalism***

He also asks the reader to focus on how totalitarianism (*zentaishugi*) and doctrines of controlled economies (*tôseishugi*)—contrary to their anti-capitalist statements—often fulfill the needs of the profit institutions of “finance block economies.”<sup>72</sup> The efforts by bureaucrats and businessmen to control and organize all aspects of society for war have the danger of completely subordinating rationalism to capitalism thereby entrenching their systems of control even further. Thus aside from looking at how capitalism employs irrationalism as a safety valve for discontent, we should also look at the complicit relation between technocratic rationalism and capitalism, according to Nakai.

Instead of merely rejecting rationalism, Nakai seeks to establish an alternate one, which is historically rooted in the concrete, minute interactions of human beings with each other and with the world. “Rationalism is by no means an ‘ism’ or doctrine. It is not something artificial,” Nakai writes, “It is being humble towards the strict quality of principle within nature that human beings depend upon.”<sup>73</sup> Rationalism is not some abstract, idealist doctrine of belief but rather, something rooted in creative experimentation with the external world. According to Nakai, human beings discover innumerable dynamic principles in the world and within their social order, and in turn, they become aware that they shape and form that very order through their sensuous interaction.<sup>74</sup> The rationality he is affirming is not a passive, reflective, and abstract one but rather active, inventive and concrete. “This passion toward reason is no longer *dependence* but rather *creation*. This is a

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<sup>72</sup> Ibid., 139.

<sup>73</sup> Ibid., 140.

<sup>74</sup> Ibid., 140-141.

jump from the *reason of nature* to the *reason of technology*,” Nakai writes.<sup>75</sup> It is this dynamic, tense “reason of technology” rooted in everyday human existence that Nakai develops in his explorations on the critical potential of film and his writings on the form and feeling of modern sports. These specific sites illustrate a radically different notion of technology, one that has the potential to question the massive commodification and specialization of human life by monopoly capitalism, and its discipline of mass critique and cooperation by the various means outlined above.

#### **IV. THE PROJECTIVE STRUCTURE OF CONSCIOUSNESS AND THE LOGIC OF TECHNOLOGY**

##### ***Consciousness and Practical Subjectivity as “Projection”***

Before looking at Nakai’s writings on the technologies of film and sports, it is useful to first outline his general theory of consciousness and practical subjectivity. Like other philosophers of the period, Nakai does not think of consciousness as a substance divorced from the material world or as he says in a 1934 *Bi Hihyô* essay, as an “abstract, conceiving *something*” that

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<sup>75</sup> Ibid., 141. Emphasis Nakai’s. Shima Akira correctly points out that Nakai’s theory of technology borrows heavily from Hegel and Marx’s notions of “sensuous practice”—of transforming oneself through transforming nature. He notes that for Nakai, unifying the “natural order” and “human order” into a new order that fulfills human goals and objectives is the essence of his logic of technology—what Nakai calls a “tension towards a direction” inherent in the nature of technology. This creation of a new order not only transforms society but subjectivity as well. Yet Shima collapses Nakai’s thought into a mechanical dialectic, thereby failing to recognize the non-dialectic aspects of his theory of technology, which try to highlight an untimely “technological time” of invention in everyday life or the possibilities for new, critical sensation within mass-mediated subjectivity, for example. For Shima’s explication of Nakai’s theory of technology in connection with the pre-war debate over the theory of technology, see Shima, 60-81.

grasps an “*abstracted conceived something*.”<sup>76</sup> Rather he thinks of consciousness as a dynamic, projective relation inseparable from practical subjectivity, creation, and concrete involvement in the world and with other subjects. Borrowing from the functionalism of Ernst Cassirer, Nakai gives the example of the window, which is not produced from abstract mental representations of a circle or square but rather from actively combining the concrete, functional elements of circulation, view, and lighting.<sup>77</sup> Air circulation, scenic view, and access to sunlight are three practical needs arising from human negotiation with the world—in this case, the process of creating a living space. Thus the window is not merely some external thing but more of a dynamic, living form in which the subject actively participates by projecting the natural relations of air, nature and light into the form of a window. Borrowing from Martin Heidegger, Nakai sees the subject’s (or *Dasein*’s) fundamental existential comportment as “care” or as an undetached, concerned, and specific imbrication with the world.<sup>78</sup> Different from Heidegger, however, Nakai sees this fundamental involvement as a kind of “projection” (*shaei*) and “re-presentation” (*mōsha, Abbild*—“copy,” “reproduction” or literally “from image” in German), and it is here where he develops his more subjective notion of technology.

In a paper presented in 1932 at the Kyoto Philosophical Society under the title, “*Bi no tenkō to sono kadai*” (“The Conversion of Beauty and its

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<sup>76</sup> Nakai, “*Mosharon no bigakuteki kanren*” (“The Aesthetic Relevance of Theories of Mimesis”), *NMz* 1:7. Emphasis Nakai’s.

<sup>77</sup> *Ibid.*, 9. See Ernst Cassirer, *Substance and Function & Einstein’s Theory of Relativity*, tr., William Swabey and Marie Swabey, (New York: Dover Publications, Inc., 1953).

<sup>78</sup> Nakai, “*Mosharon no bigakuteki kanren*,” 10. See Martin Heidegger, *Being and Time*, tr., Joan Stambaugh, (Albany: State University Press of New York, 1996), 171.

Problems”), Nakai describes this projective structure (*shaei kikō*) of consciousness:

Consciousness is not an originary mass that grasps a memory and then realizes it but rather, the memory itself is one phase of a projective structure with the potential to re-present (*mosha, Abbild*) the many series that are in the world. In providing a “dynamic axis” (*dōsahyōteki hōkō*) to these projectable structures in the world, the actual modality of “consciousness” is to transform potentiality, which has the character of a medium, into actual action, which has the character of the “middle” (*Mittel*)...In contrast to memory (or perception in a wide sense) being a static projective element, consciousness, in heading towards a certain direction, transforms these elements into a subjective body of real action as an active, dynamic point or a projective moment. It transforms the projective nature of the modality of medium into the projective nature of the modality of the “middle.” In other words, consciousness comes to have its own logical structure as that which transforms itself from medium-like mediation as “spirit/mind” (*ki*) to the medium of the “middle” as “chance/opportunity” (*ki*).<sup>79</sup>

Consciousness is not a contemplative substance but rather a practical, transformative mediation of the world with two moments of projection based on two inherent meanings of the word, “projection”—pro-jection (*shaei*) and re-presentation (*mosha, Ab-bild*). Based on its understandings of and negotiations with air circulation, view, and lighting in forming the window, for instance, consciousness enters into a projective mode of re-presentation over how to best “map” or re-present these elements (or “series”—the blowing of the wind, the change in the surrounding view, and the variation in light are all natural series in movement, not static objects) into some form for that specific dwelling.

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<sup>79</sup> Nakai, “Geijutsu ni okeru baikai no mondai” (“The Question of Mediation in Art”), *NMz* 2:124-125. This was finally published in *Shisō* (Thought) in 1947.

In his less jargon-filled lectures at Sôai, Nakai describes this subjective mode of consciousness as the “demeanor of Hamlet,” which existentially grapples with and agonizes over the specific problems it encounters.<sup>80</sup> In this mode consciousness reflects on what it did wrong, what combinations worked and did not work, possible scenarios and outcomes, and so on regarding that specific problem. In short, the form of the window comes to exist in this mode as a dynamic potentiality (*kanôtai*) charged with the subject’s concrete re-presentations or re-combinations of various natural series such as air circulation and lighting. It comes to exist as a “medium” or something with a charged mental form or outline to be realized.

This re-presentational “Hamlet” mode is fundamentally linked with the projective moment of action or praxis—what he calls in the same lecture, the “demeanor of Don Quixote,” who actively tries out and experiments with different things.<sup>81</sup> The “subjective body of real action” is a kind of tense, “pressing into” being or what Nakai calls a “leaping towards” (*hiyaku*), which is some instance of invention in the world based on the subject’s charged reflection of the previous mode.<sup>82</sup> This projective moment of invention is what Nakai calls, the “middle,” which as we shall see, is not some clear, representable result but rather the uncanny, untimely eruption of creation or praxis itself—“chance” or “opportunity.” The “middle” is not the step before a finished product (i.e. the window), mere realization of a previous mental idea, or some definite existential state but has a different “space-time” altogether, which he calls “technological.” Rather than being a contemplative substance, consciousness is an incessant, itinerant link or “switch” between these two

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<sup>80</sup> Nakai, “Tenkanki no bigaku” (“Art in a Period of Transition”), *NMz*, 2:300.

<sup>81</sup> *Ibid.*

<sup>82</sup> *Ibid.*

modes of existential projection (Hamlet's charged reflection and Don Quixote's sensuous "leaping" into the world), which discloses an originary space-time of art and invention that is neither future nor past, before or after but merely, "middle."<sup>83</sup>

### ***Projection and the Body: Light, Sound, Words***

This projective structure of consciousness is a bodily, sensuous subjectivity, not a detached, epistemological one. He writes:

The body is a natural formation (*shizen kōsei*) as the mediation of this projective structure. Light, sound, and words occupy the various realms of meaning-connection in this projective relation mediated by the body. The common characteristic of light, sound, and words is their transmittability (*dentatsusei*), which serves as their greatest function. In short they have the potential to project the same structure of relations in infinite directions.<sup>84</sup>

In the body's sensuous involvement with the modern world, "light, sound, and words" are the specific forms that "bodily consciousness" projects in transforming natural series or phenomena into inventions. They form the vital, dynamic, *technological* structure of bodies. Rather than being things that are instrumentally employed, they form the very being of the body's active representation and projection of what it minutely encounters in the world. Light, sound, and words are the very "stuff" or material of modern human sensation,

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<sup>83</sup> See John Ricco, *The Logic of the Lure*, Chicago: University of Chicago Press, 2002, 3. Ricco writes, "[The middle is] a here and now that in its singularity is not properly designated by *the* middle, but more so as *a* middle or simply as *middle*, thereby marking the impropriety of every singularity, every here and now. A middle, then, that is in the midst of the middle, a *now here* that is at the same time *nowhere* but elsewhere." As I will show, Nakai develops a particular notion of the "middle" to describe the interruptive force of technology, as well as its singular form of existence, which refuses the usual categories of space as place and time as succession.

<sup>84</sup> Nakai, "Geijitsu ni okeru baikai no mondai," 125.

which as Nakai points out, is transmittable in infinite directions. Bodies are not fixed substances but vital, changeable “formations” or “constitutions” (*kôsei*) of transmittable light, sound, and words.<sup>85</sup> This “dynamic nature” (*ryokugakusei*) and practical subjectivity (*shutaisei*) of bodily constitutions of light, sound, and words has its own logic—what Nakai calls, the logic of technology.<sup>86</sup>

### ***The Dynamic Tension of Technology***

Nakai builds on the notion of *techne* from ancient Greek philosophy, which classifies “all action of human phenomena other than the serene and contemplative episteme” as technology.<sup>87</sup> He describes the “being of technology” as a “dynamic tension, similar to the warps and distortions of energy fields,” and as an “action that vigorously transforms the very categories of possibility to impossibility, impossibility to possibility, reality to unreality, unreality to reality, contingency to necessity, and necessity to contingency.”<sup>88</sup> Thus, for example, while the navigable balloon was unreal one hundred years ago, it has today become real in the form of an airplane.<sup>89</sup> Yet as we saw above, this invention is not merely a linear, step-by-step process but rather a tense “middle” of chance and opportunity that can go in any number of unforeseen, surprising directions. Nakai calls this instance, “technological time.”

The concept of technology...has a dynamic structure in the sense of being able to bend and distort as a field of energy or power. Here,

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<sup>85</sup> In one of his last books before he died, *Bigaku nyûmon* [Introduction to Aesthetics], published in 1951, Nakai describes the body as follows: “The body might be thought of as something like a palace filled with mirrors that infinitely reflect/project various things such as light, sound and words off of each other (*utsushiau*).” Nakai, “Bigaku nyûmon,” *NMz* 3:111.

<sup>86</sup> Nakai, “Geijitsu ni okeru baikai no mondai,” 125.

<sup>87</sup> *Ibid.*, 126.

<sup>88</sup> *Ibid.*, 126.

<sup>89</sup> *Ibid.*, 126.

against 'natural time' that merely flows successively, 'technological time' has an originary, productive character of existence in which any moment is a 'point of departure.'<sup>90</sup>

This time where every point is an inventive "point of departure" is a tense "field of power" (*chikara no ba*) with a positive and negative direction.<sup>91</sup> The negative direction is the reflective, re-presentative moment of consciousness while the positive direction is the pro-jective, active moment as described above. Technological time is a field where projection towards the past ("treading firmly upon one's mistakes") incessantly alternates and interacts with a projection towards the future ("praxis").<sup>92</sup> This time of the "middle" where invention takes place is an unnatural, exceptional time that goes in two temporal directions at once. Moreover, as mentioned above, this invention takes place concretely through "light, sound, and words," which form the dynamic, transmittable structure of bodily sensation. By exploring the material technologies of film, which he saw as in turn revolutionizing these bodily technologies of "light, sound, and words," and what he calls the bodily technologies of modern sports, Nakai sought to disclose and intensify these specific, everyday forces or "middles" of invention and critique amidst the increasingly commodified, technologically permeated reality of the 1930s.

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<sup>90</sup> Ibid., 126-127.

<sup>91</sup> Ibid., 126.

<sup>92</sup> Ibid., 127, 128.

## V. THE NEW SENSORIAL FORMATIONS OF FILM

### *The “Social Collective Character” of Film*

Similar to Walter Benjamin’s famous description of the collective character of film and its transformation of mass sensation in his 1936 essay, “The Work of Art in the Age of Mechanical Reproduction,” Nakai describes the “social collective character” and “physical collective character” of film technology, and their effects on subjectivity and sensation in the 1931 *Bi Hihyô* essay, “Butsuri-teki shûdan-teki seikaku” (The Physical and Collective Character).<sup>93</sup> The social collective character of film refers primarily to the process of making film. Unlike painting or other “individualist” arts, the process of making a film involves hundreds of specialized workers (actors, directors, camera and sound technicians, etc.) and organizations (studios, movie companies, distributors, advertisers, etc.).<sup>94</sup> This collective process of production accompanied the immense changes of urbanization, heavy industrialization, and the development of mass media and consumer culture in the early twentieth century. These changes, according to Nakai, have transformed human subjectivity itself from an individualistic “ego” or “self” (*jiga*) to a mass subjectivity, which is fundamentally tied up with larger social organizations encompassing different aspects of life. “These might be said to take on a capitalist form, and the age is already making the character of the ‘group’ (*shûdan*) its unit of exchange. Associations, companies, factories,

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<sup>93</sup> In an unpublished version of his 1930 *Osaka Asahi Shimbun* (Osaka Asahi Daily) article entitled “Shûdan bi no igi” [The meaning of mass art], Nakai translates *shûdan* as “mass” rather than “group” or “collective.” Therefore, we should keep in mind that Nakai uses the term, “collective,” in a looser, more ambiguous sense. See Nakai, “Shûdan bi no igi,” *NMz* 2:183. See also Benjamin.

<sup>94</sup> Nakai, “Butsuri-teki shûdan-teki seikaku,” *NMz* 3:153.

schools, military units, newspapers, magazines, and so on are all examples of this,” Nakai writes.<sup>95</sup> These large organizations are similar to immense, mathematically precise machines in which each part has an essential, active role.<sup>96</sup> These social machines or formations (*kôsei*) are not lifeless mechanisms but “*logos* in movement” and “*morphe* in formation.”<sup>97</sup> Each member is infused with an active “feeling of organization” and “solidarity.” “Strong feeling is within these systems, these systems are within a strong feeling,” Nakai writes.<sup>98</sup>

### ***The “Physical Collective Character” of Film***

This social collective character of immense, life-like, and precise organizations permeating people’s bodies and subjectivities, and manifesting themselves aesthetically in collective processes of film production, are accompanied by a “physical collective character.” This describes the mass technologies that accompany the development of large social institutions. In film, this is the camera film, lens and tubes that constitute the very material form of the film. Like the social collective character, the physical collective character immediately shapes and forms mass sensation and subjectivity by manipulating its projective, technological structure—what Nakai described above as dynamic bodily formations of “light, sound, and words.” For example, the camera lens can “spatially expand and minutely focus the range of our vision by adjusting and constituting the degree of light refraction,” and lends a freedom to vision not possessed by the human eye,” Nakai writes in

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<sup>95</sup> Ibid., 156.

<sup>96</sup> Ibid., 158.

<sup>97</sup> Ibid., 157.

<sup>98</sup> Ibid., 158.

an earlier 1929 essay entitled, *Kikaibi no kôzô* (The Structure of Machine Aesthetics), published in *Shisô*.<sup>99</sup> Temporally, the lens and film have a “preservative precision of sight and a variable freedom [to record], which the sense of vision cannot hope to achieve.”<sup>100</sup> He adds:

The variation brought about by the quality to capture forms evenly, sharp contrasts, a precise realism, and definite straight lines and curves; the freedom and richness stemming from the punctuality of that capture, and the freedom of technical direction as well as light direction all have a fiercer ‘leaping-forward’ quality (*hiyakusei*) than the variation capable in any other period in the history of the pictorial image. Not only does the lens have the power to grasp fierce speed but it can even grasp the interior of a cell, the constitution of a crystal, the orbit of constellations and ultimately, the Brownian movement of molecules as well.<sup>101</sup>

The lens is not merely an instrumental tool of production but immediately affects human perception itself by expanding, varying, enriching, preserving, and focusing it. As Benjamin writes, the camera “opens up an immense and unexpected field of action” and an “unconscious optics” for the mass viewer to learn and discover new things—art is no longer the privileged arena for the cultured elites.<sup>102</sup>

This vision shaped by the lens is accompanied by an “aesthetic sense of feeling of scientificity,” Nakai writes.<sup>103</sup> He adds, “Ultimately, as a result of

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<sup>99</sup> Nakai, “Kikaibi no kôzô” (“The Structure of Machine Aesthetics”), *NMz* 3:243.

<sup>100</sup> *Ibid.*, 243.

<sup>101</sup> *Ibid.*, 243-44.

<sup>102</sup> Benjamin, 236, 237. He writes:

Our taverns and our metropolitan streets, our offices and furnished rooms, our railroad stations and our factories appeared to have us locked hopelessly. Then came the film and burst this prison-world asunder by the dynamite of the tenth of a second, so that now, in the midst of its far-flung ruins and debris, we calmly and adventurously go traveling. [Benjamin, 236].

<sup>103</sup> Nakai, “Kikaibi no kôzô,” 244.

these different constitutions of vision, an accompanying character always appears. In other words, a subtlety, starkness, sharpness, precision, or in short, ‘a sharp feeling of ease or relief (*mune ga suku*) appears.”<sup>104</sup> “This seeing eye of the machine that deeply permeates all areas of everyday life, newspapers, laboratories, investigation rooms, astronomical observatories, and so on, along with the character of this eye, drops its point of vision upon every person, as a character that is larger and deeper than every person,” Nakai writes.<sup>105</sup>

Technologies such as the lens do not just fundamentally change vision but standardize it as well. In a 1931 *Bi Hihyô* essay, Nakai describes this as follows:

The camera film, and so on, of Eastman, AGFA, Pathé, Bolex, Dupont and other companies. The level of brightness and darkness, vividness, and particular functions of the 9.5 mm, 16 mm, and 35 mm lens, and of positive, negative, reversal, and panchromatic film exposure, etc, as well as the functions of various combinations of these, which have a standardness that no individual can change. Moreover, this standardness is a depth graph with its own kind of vision that deeply enters where no individual would be able to go. I call this type or standard, the physical collective character. It is the standard reached at the time by collective technology.<sup>106</sup>

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<sup>104</sup> Ibid., 244.

<sup>105</sup> Ibid., 244. On the same page, he refers to Le Corbusier’s “eyes that do no see,” Béla Balázs’s “visible man,” and Dziga Vertov’s “kino eye” in describing these changes in human vision. These three artists, many of whose works were translated into Japanese, influenced much of Nakai’s thought on technology and mass subjectivity/sensation. See in particular, Le Corbusier, *Towards a New Architecture*, tr. Frederick Etchells, (New York: Dover Publications, 1986), Béla Balázs, *Der sichtbare Mensch: oder, Die Kultur des Films* [The Visible Man or The Culture of Film], (Frankfurt am Main: Suhrkamp, 2001), Béla Balázs, *Theory of the Film: Character and Growth of a New Art*, tr. Edith Bone, (New York: Dover Publications, 1970), and Dziga Vertov, “From Kino-Eye to Radio-Eye” in Dziga Vertov, *Kino-Eye: The Writings of Dziga Vertov*, tr. Kevin O’Brien, ed. Annette Michelson, (Berkeley and Los Angeles: University of California Press, 1984), 85-92.

<sup>106</sup> Nakai, “Butsuri-teki shûdan-teki seikaku,” 161.

While technology expands and diversifies vision, it also socializes it through standardized lens and film technologies with set ranges produced by large corporations. Nakai, however, does not view this technological standardization of sensation as a limitation but with tremendous hope in its inventive, democratic possibility.

Together with what he calls, the “social collective character” of large, dynamic, machine-like organizations permeating everyday life, this “physical collective character” of mass-media technologies such as the camera lens fundamentally transforms mass subjectivity and sensation.<sup>107</sup> Nakai writes:

The characters of lens, together with film and camera tubes, have a particular character of the collective. This is not merely their possession of a relational sentiment as object of contemplation. Rather, what we should particularly note here is that they enter into the very senses themselves. They are the so-called nerve organization itself of the social collective character; their eyes, ears, and voice. Film is their memory and re-presentation. We might think of the social collective character as having its form stimulated, solidified, and developed by the appearance of these functions.<sup>108</sup>

Technology is not merely an instrument but the very “nerve organization” or active sensorial structure of an emerging mass subjectivity embodied in large organizations. It is not something external or abstract but fundamentally tied up with social practice and invention in the world through its concrete manipulations of “light, sound, and words.” This collective social and physical character of technology as fundamentally tied to subjectivity and sensation is the potential basis for new collective, institutional, subjective, and aesthetic forms, according to Nakai. Like Benjamin, he sees immense possibility in the

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<sup>107</sup> Ibid., 153.

<sup>108</sup> Ibid., 159-60.

immediate availability of mass media technology to the people and their transformation into critics or “experts.”<sup>109</sup>

At this point, we might think that Nakai comes frighteningly close to describing a techno-fascist dream society of large, productive institutions composed of active subjects and connected and driven by mass, collective media technologies. Yet as mentioned before, rather than romantically rejecting the formation of mass, collective institutions such as the factory, school or association, and the rise of standardized mass-media technologies, Nakai criticized the capitalist appropriation of these institutions and technologies. Also, instead of just negatively rejecting capitalist institutions and technologies, he sought to develop and intensify the immanent, often overlooked critical possibilities within them, and ultimately, the critical possibilities of the masses themselves. He did so primarily by outlining a different notion of technology linked to the revelation of an untimely, non-instrumental “technological time” or “middle” of subjective praxis and invention.

### ***Mikhail Kaufman’s ‘Spring’ as a Realization of “Technological Time”***

Nakai develops the core of his notion of technology as the revelation of an untimely, non-instrumental “technological time” or “middle” of subjective praxis and invention in another 1931 *Bi hihyô* essay on the Soviet avant-garde film, *Vesnoj* (In Spring, 1929), directed and filmed by Mikhail Kaufman, Dziga Vertov’s brother. The film is a poetic social documentary that portrays the springtime devastation of rain and flood as preliminary rebirth, making the spring a kind of metaphor for revolution.<sup>110</sup> The representations of nature are

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<sup>109</sup> Benjamin, 232.

<sup>110</sup> “In Spring” is available at the Pacific Film Archive in Berkeley, California. PFA Accession Number: 3500-01-4503.

interspersed with shots of collective heavy industry and agriculture, everyday life and work, a May Day parade, and a sports festival. So impressed were Nakai and his colleagues by the contrast of images constituted by the frames, their tempo and speed, and the overall sense of time created through the editing, that Tsujibe and him went to the Kyoto Shôchikuza Theater and measured the time of each image with a stopwatch. The result is a long sequence of numbers, marks and letters in the essay representing each of the six parts of the film. For example, here are sections of the sequence from Part Six, “Once Again to the Workings of Spring,” which Nakai was most mesmerized by: “7(~~~) 6 6 7 7 五 f f f 6 11 10 f 4 3 5 f 4 ...11 12 4 13 (slow motion) 7 9 4 6 6 6.”<sup>111</sup> The numbers represent the length of time of the moving image (1 = .6 seconds, therefore 7 = 4.2 seconds. A silent film image contained around 16 frames per second). The “~” mark represents a certain rhythm generated by the succession of frames. The Japanese numbers represent the length of time of the subtitle image. The letter “f” means flashback or the use of the same image repeatedly.<sup>112</sup> Interspersed in the sequences are parenthetical notes such as “slow motion,” “overlap,” “top-bottom,” and “maximum speed” to represent Kaufman’s cinematic techniques such as rapid cutting, dissolving, superimposition, and split screens. At the end of these sequences of symbols, Nakai lists the average time of each image in each part of the movie. The average for Part Six was 1.79 seconds.<sup>113</sup>

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<sup>111</sup> Nakai, “Haru no kontinyuitii” (“The Continuity of ‘Spring’”), *NMz* 3:148.

<sup>112</sup> For a description of the symbols, see *Ibid.*, 146. In the version I viewed, there were very few inter-titles, suggesting that the version shown in Japan included extra inter-titles.

<sup>113</sup> *Ibid.*, 148. The version I viewed was almost one hour long, whereas if we add up the duration of all six parts in Nakai’s chart, it only adds up to twenty-three minutes and forty-seven seconds. This suggests that the version they viewed was a shorter, edited, or censored version and/or they only timed part of the film. The division of the film into six parts with titles

For Nakai, the arrangement and editing of the frames in Part Six suggests a “new sensorial formation that is neither simply the standard visuality by structure of color or lines, nor merely a structure of aurality or language.”<sup>114</sup> The film’s “particular temporal sensorial form” is something more and less than a clearly defined structure of visuality, aurality, or language.<sup>115</sup> Rather than being a clear object of vision, hearing, or understanding, the “rhythmical fierce effect” of the images constituted by the rapid succession of frames under 0.6 seconds each is instead an “extreme taking away” from or attenuation of the pictorial elements of the frames, as well as an incessant “transfiguring of these pictorial/visual elements...into musical and linguistic ones.”<sup>116</sup> Note that this “taking away” or stripping down of the visual and sensorial transformation into sound and signification is a process that never

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also seems to be something imposed by Nakai or the Japanese editors, as they are not in the original.

<sup>114</sup> Ibid., 149. Nakai was very much influenced by the Soviet constructivist school of film as exemplified by Vertov and his film group, Kino-eye. Nakai’s essay and experiment can be seen as an elaboration of Vertov’s theories on film and the transformation of mass sensation towards critique. Vertov emphasized the construction of “film-objects” through montage, rather than producing theatrical productions with clear narrative or mimetic representations of reality. These film-objects aimed to go beyond the naked human eye toward the formation of the “kino-eye.” Vertov writes:

Kino-eye is the possibility of seeing life processes in any temporal order or at any speed inaccessible to the human eye. Kino-eye makes use of every possible kind of shooting technique: acceleration, microscopy, reverse action, animation, camera movement, the use of the most unexpected foreshortenings – all these we consider to be not trick effects but normal methods to be fully used. Kino-eye uses every possible means in montage, comparing and linking all points of the universe in any temporal order, breaking, when necessary, all the laws of film construction. Kino-eye plunges into the seeming chaos of life to find in life itself the response to an assigned theme. To find the resultant force amongst the million phenomena related to the given theme. To edit, to wrest, through the camera, whatever is most typical, most useful, from life; to organize the film pieces wrested from life into a meaningful rhythmic visual order, a meaningful visual phrase, an essence of ‘I see.’ [Vertov, “From Kino-Eye to Radio-Eye” (From the Kinoks’ Primer) in Vertov, *Kino-Eye*, 88.]

It is this dynamic “essence of seeing,” which is different from naked sight or transparent visibility, that Nakai is trying to explore in highlighting the new sensorial formations of film.

<sup>115</sup> Nakai, “Haru no kontinyuitii,” 149-150.

<sup>116</sup> Ibid., 149.

ends or arrives anywhere. The visual images are never fully captured or overwhelmed by sound or signification since they are always incessantly being transformed. The film, according to Nakai, points towards a new sensorial structure constituted by “cinema sentences” (*Eiga-go, Kinosatz*) and “cinema tones” (*Eiga-on, Kinoton*). According to Nakai, the *Kinosatz* is something “totally separate from the meaning of the subtitles” and the *Kinoton* is something “totally separate from the meaning of talkies.”<sup>117</sup> Literal meaning and clear sound are insufficient to express the “new sensorial formation” constituted by the particular cinema sentences and cinema tones of part 6 of *Spring*.

The *Kinosatz* is a series of moving images constituted by the frames. Each image by itself has very little meaning as a visual image, according to Nakai, since they are often formed by a rapid succession of 12 to 19 frames of less than 0.6 seconds each, which hardly register to the senses.<sup>118</sup> It is unnecessary to clearly see each and every image. Instead, what we “see,” according to Nakai, is another time constituted by an edited continuity of images—the “beauty of seen time.”<sup>119</sup> The montage sequence is not a sentence of signification or sufficient object for the understanding but an

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<sup>117</sup> Ibid., 149. Vertov’s film, “Man with the Movie Camera” (1929), for which Kaufman was the cameraman announces the following at the beginning: “This film presents an experiment in the cinematic communication of visible events without the aid of intertitles (a film without intertitles), without the aid of a scenario (a film without a scenario), without the aid of theater (a film without sets, actors, etc). This experimental work aims at creating a truly international absolute language of cinema based on its total separation from the language of theater and literature.” The footage from “Spring” was taken during the filming of “Man with the Movie Camera,” however, it was not used there. Thus there is a strong resonance between Nakai’s project of highlighting new, creative possibilities for sensation within mass-mediated, heavily technologized subjectivity, and Vertov’s project of forging a new cinematic language and sensation through film.

<sup>118</sup> Nakai, “Haru no kontinyuitii,” 149.

<sup>119</sup> Ibid.

“immediate language without grammar and conjugation.”<sup>120</sup> Or as Nakai would write in a post-war work, “cinema sentences” are like sentences without copulas, without a *de aru* or *de nai* (is or is not).<sup>121</sup> While words are always symbols made to intend some meaning, images are symbols that extend in innumerable directions in people’s memories, according to Nakai, and are open to innumerable results, unexpected sensorial effects, and interpretive possibilities.<sup>122</sup> In Benjaminian terms, the cinematic experience is “characterized by the direct, intimate fusion of visual and emotional enjoyment with the orientation of the expert.”<sup>123</sup> The mass spectator’s vision and affect are combined with a type of comportment characterized by “testing,” questioning, and probing.<sup>124</sup> Both Benjamin and Nakai see great social significance in this transformation of mass sensation through film, which is immediately opened to affective politicization, whereas classical arts such as painting, for example, were much more oriented to passive, individual “contemplation.”

The *Kinoton* is not just perceived sounds such as accompanying music and speech but is also constituted by a number of other factors such as the contrast of images formed by combining many successive frames with the “right calculation of lightness and darkness,” and the editing of frames to create a certain tempo or as Nakai writes, “the rhythm of its tempo, of its hardness and softness, of its lightness and darkness” (“objective relations of sound”).<sup>125</sup> The *Kinoton* then is something more than a heard tone (although

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<sup>120</sup> Ibid., 150.

<sup>121</sup> Masakazu Nakai, “Bigaku nyûmon,” 77.

<sup>122</sup> Nakai, “Haru no kontinyuitii,” 150.

<sup>123</sup> Benjamin, 234.

<sup>124</sup> Ibid., 229, 234.

<sup>125</sup> Nakai, “Haru no kontinyuitii,” 149.

the music, for example, is a part of it) and perhaps more of a “touched” and “seen” one (yet irreducible to touch and sight).

He describes the singular sensorial “tone” arising from the succession and contrast of two quick images of the *Kinosatz*:

When this image of the horse is repeated with a 0.6 second image of a general, and these images are switched with a good tempo, people might experience a rhythmical movement in the directionalities of two spaces of signification—the positioning of the self toward the constitution of meaning that intends the decorated horse and the positioning of the self toward the constitution of meaning that intends the representation of the decorated general. *It is as if we were moving while pleasantly bounding in the unevenness of signification.* And like a child, our spirits would probably clap their invisible hands within that gliding movement. Here the particular *tone (oto kôsei)* of the *cinema sentence (Kinosatz)* emerges.<sup>126</sup>

The significance of the *Kinosatz* does not lie in the interpretation of meaning of each image or the entire sequence of images but rather in the movement and event of the images themselves, which disclose the very force of signification.<sup>127</sup> The seen object of signification is less important than the “pleasant bounding in the unevenness of signification” and the simultaneous “positioning of the self” *towards* two specific “constitutions of meaning” (the horse and general) or two “spaces of signification” without ever arriving there. Achieving signification is less important than the very eruption of signification where every point is, as Nakai says elsewhere, a “point of departure.”

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<sup>126</sup> Ibid., 150. First emphasis is mine. Second is Nakai’s.

<sup>127</sup> Vertov emphasized the temporal “interval” in the construction of “film-objects.” He writes: “The school of kino-eye calls for the construction of the film-object upon ‘intervals,’ that is, upon the movement between shots, upon the visual correlation of shots with one another, upon transitions from one visual stimulus to another.” Vertov, 90.

In sum the “new sensorial formation” of film enacted by Part Six of *Spring* is a concrete manifestation of the inventive “middle” or “technological time” (the force of praxis and poiesis itself) that Nakai gestures towards in other essays. This uneven, gliding “middle” of invention cannot be fully grasped as an understood sentence, audible sound, or perceived image. Yet it is not completely outside sensation and thought either but rather, beside or “in the shadows” of it.<sup>128</sup> Perhaps we can only express such attenuated sensations that are not fully visual, aural, or hermeneutic in a singular language such as Nakai’s mathematical one. In these sequences, rather than merely seeking to capture and understand the technical structure of the film, Nakai tries to concretely express the very dynamism and material force of a new, technological sensation in language—that behind each frame is a “deep mathematics between the infinite intersections of representations and the bright/dark, fast/slow formations of infinite light.”<sup>129</sup> Each frame does not stand alone as an object of interpretation but relates to other frames and images, as well as various projections of light that form the singular cinema sentences and cinema tones that immediately constitute our “particular temporal sensorial forms.” Rather than an adequate, interpretive language sufficient for the understanding, the immediate sensorial formation of the *Kinosatz* and *Kinoton* demands a different, unconventional language to express the bare, material force of the “pleasant bounding within the unevenness of signification,” perhaps nothing more and less than the specificity of “f f f f f (~~~~)< up-down(~~~~~)(double exposure) 10 f f f f < up-down(~) 7 7 6...”

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<sup>128</sup> Ricco, 71.

<sup>129</sup> Nakai, “Haru no kontinyuitii,” 150-151.

itself.<sup>130</sup> Benjamin describes the sensations of cinema as a “shock effect.”<sup>131</sup> Nakai, however, tried to minutely trace this dynamic, inventive, and techno-aesthetic structure of cinematic sensation—a sensation with immense revolutionary (and counter-revolutionary) potential, as both recognized.

***Nakai’s Cinematic Practice: “The First Anniversary of ‘Saturday’”***

Unfortunately, Nakai’s experimental color films, “Ten-Minute Meditation” and “Poem of the Sea,” shot with a fish-eye lens and released to much public fanfare in 1932 no longer exist. However, the 8mm camera films of Nakai’s close colleague, Nose, have been preserved. One particular film in which Nakai and his colleagues clearly had a role in is “‘Doyôbi’ no isshûnen kinenbi” (“The First Anniversary of ‘Saturday,’” 1937).<sup>132</sup> As mentioned above, Nakai and Nose were two of the main organizers of this bi-weekly mass tabloid, which ran from July 1936 to November 1937. The seven-minute film has two parts, the first depicting a boat outing among seventy or so members and friends of *Doyôbi* (including Nakai), the second showing a picnic in early spring among many of the same people. It opens with camera shots rolling over scattered copies of *Doyôbi*. After announcing the arrival of “a happy day for seventy-odd friends,” we are shown slow, flowing shots of the shore of Lake Biwa and then shots of a boat deck where middle-aged men in summer suits, women in bright dresses or kimono, uniformed students, and little boys and girls in their best clothes are having a lively party. The film is constantly

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<sup>130</sup> Ibid., 148. In the original, “up-down” is written in the Japanese characters for “up” and “down” on top of each other. They signify two images on top of each other.

<sup>131</sup> Benjamin, 238.

<sup>132</sup> For more on Nose’s films and Nakai’s film theory, see Nornes, 137-147. Nornes mentions their collaboration in this film. It is available at the Tokyo office of the Yamagata International Documentary Film Festival.

punctuated by short images of a tri-colored *Doyôbi* flag fluttering fiercely in the wind. The camera continues to slowly flow over the different people on board, scrupulously yet fleetingly capturing the facial expressions—usually from a low angle—of the women, men, and children who are smiling or laughing for the camera, idly leaning against the boat railing, staring off onto the lake, chatting with their friends, or running around with toys. The film then suddenly cuts to a rapid succession of shots of various people at sharp, crooked angles from above and below. The images hardly register to the eye and are usually images of people in the midst of some mundane action such as taking a drag off of a cigarette, turning their head, putting their hand to their face, chewing away on a snack, or walking to another part of the boat. The film then cuts again to wavy shots of men pouring *sake* for each other and happily drinking away. The men begin to clap, jig, and waltz with each other, the camera rhythmically weaving amongst and between the dancers. It then ends again with careful shots of the faces of the people on board enjoying the bright sun on the lake, the *Doyôbi* flag waving in the wind, and finally of some hands shuffling through copies of the tabloid emblazoned with its slogan, “Saturday: A Joyful and Memorable Afternoon.”

Part Two begins with the large subtitles, “Singing voices resound in a field of early spring,” and then of shots going over men, women, and children eating out of their lunch boxes in an open field. A close-up of a spinning record player follows. Next we see longer shots of many of the same people rhythmically passing their hands to each other interchangeably in a bouncy folk dance. The shots focus on and bring out the moving bodies, shuffling feet, and swinging arms flowing across the screen. After another shot of the record player, the camera shows different scenes of people streaming by, arm

locked in arm, shooting from the bottom up and at various crooked angles against the background of the open sky. They show each person's bouncing facial expression whizzing by in a blur, ranging from vigorous joy to careful nervousness. Then we see a shot of Nakai sitting on a log with four other men mockingly pretending to row a boat in an absolutely uncoordinated and most likely drunken manner. A scene of five women laughingly doing the same follows. The movie ends with a raucous, collective toast to *Doyôbi*.

At a time of increasingly militant fascism, repression, and wartime mobilization (the film was made right before the outbreak of war with China, and Nakai was arrested soon after this), the film at first seems quite optimistic or even escapist. However, taking a cue from Nakai's efforts to disclose an immanent "technological time" of inventive and critical energy embodied in everyday practices, as well as in the "new sensorial formations" of film, we might think of it instead as an attempt to materialize another sense of time different from the uniform, linear, capitalist time of hyper-production. As mentioned above, Nakai continued to place central importance on the role of capitalism in disciplining the critical energies of the masses during this period of militant fascism. Not only have these energies been co-opted into an endless, repetitive time of buying and selling commodities, but they have also been incorporated into specialized, rationalized, machine-like organizations of mass production, according to Nakai. On the production side, Taylorist production schedules designed to maximize worker output, the introduction of faster and more efficient machinery, and the increasing simplification and specialization of tasks are some of the ways large capitalist firms disciplined workers and transformed time into a linear, instrumental time for profit.<sup>133</sup> On

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<sup>133</sup> Nakai, "Gôrishugi no mondai," 134-136.

the consumption side, the disciplining of the imagination into the designs of corporate combines and the supposedly natural laws of price and value, as well as the constant process of purchasing and selling commodities (including labor) created a repetitive time. In short, capitalist temporality is based on an instrumentalist idea of technology as a subjective or objective means to an end—in production, a means to control and profit, and in consumption, a means to the fulfillment of need and desire. Yet as we have seen, Nakai has a different notion of technology altogether and seeks to disclose a singular, “technological time” of invention amidst the time of capital. He does not find this “technological time” outside of the capitalist institutions of society nor in some future utopic space beyond it. This time or “middle” is already *here* and *now* (as he said in one of his *Doyôbi* editorials), in the minute, everyday practices and techniques of the masses, and within their subjectivity and sensation already shaped by mass organizations and mass media technologies.<sup>134</sup> Moreover, as we shall see, the film’s striking resonances with Kaufman’s film, which tries to materialize a certain temporality and sensation of socialist revolution, also suggests similarities in terms of objectives.

What first strikes one about the film is the combination of longer, flowing camera sequences that glide over the people’s faces and sharp, quick shots of the same. We see each outlined facial expression only briefly before the camera either flows or cuts to the next one. Our sight is constantly moved to the next image either by the gliding camera or the editor’s cut—little time is provided for a viewer to reflect and settle on anything. Subjective reflection seems to be beside the point since the movement of images always constantly

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<sup>134</sup>Nakai, “‘Doyôbi’ kantôgen” (Opening Articles to ‘Saturday’), *NMz* 4:25-27. Originally in July 17, 1936 Issue of *Doyôbi*.

drives the viewer away from him or herself to another instance. In fact the camera seems to try and realize this very movement of vision itself (vision without a viewer, that instance of driving the viewer “beside” him/herself), which might be described as that difficult to grasp, immediate, and incessant “stripping away” of the pictorial to another instance, rather than a simple representation of what lies in a viewer’s field of vision. Kaufman’s film interestingly also juxtaposes rapid, fleeting shots of children’s facial expressions and body parts while at play or rapid frames of spectator expressions, for example, in order to achieve a different type of visuality.

Secondly, through sharp-angled and flowing shots of the dancing bodily forms, swinging arms, and bouncing faces, the camera tries to make one “see” and “touch” the sound and rhythm of the singing and dancing. While the silent film was accompanied by jazz records in the theater (Nose’s son, Kyô, also put in a catchy jazz tune to the preserved copy), they do not take away from the camera work and editing, which use sharp angles or focused shots on the bodies and faces streaming or bouncing by, as well as punctual cuts to different sections of the group dancing in order to achieve this. Part Six of Kaufman’s *Spring*, Nakai’s favorite section, also ends with a raucous folk dance. This scene is a well-coordinated, rhythmical, and fast paced series of shots of people dancing, drinking, clapping, and laughing. Moving shots are mixed with still shots, diagonal shots with straight shots, close ups with panoramic shots, fast cuts with longer cuts. Shots of twirling dresses, shuffling feet, fingers playing accordion keys, flashes of singing and laughing facial expressions, and a moving accordion player on a unicycle are interspersed in a fast and furious rhythm that climaxes the film. Despite the lack of sound, we

somehow “see” and “feel” the rhythm of *Spring* that Nakai was so impressed with.

Third, while the film obviously shows the development of two raucous parties, the images by themselves have very little meaning. Instead of images of deep narrative significance, we are bombarded, for example, with shots of a girl swinging around a boat pole, a woman smiling and scratching her face, people swinging hand to hand on a field, or a head quickly turning in some direction. Thus instead of merely trying to scrupulously capture some historical event or story, the camera and editing try to reveal something else—a more mundane, worldly “mass” time rooted in everyday life and custom such as eating, singing, dancing, chatting, gazing, and playing. This time is not the time of mass consumption or Taylorist efficiency schemes, to which the Japanese public was increasingly incorporated into. Kaufman’s film also tries to bring out everyday time in the Soviet Union through shots of people going about their business in town, women cleaning or gossiping on the street, young men playing soccer, lovers walking in the park, birds roosting, dogs barking, and children playing. The time of *Spring* is a different time than the instrumental time of capitalist production.<sup>135</sup>

This worldly, often unremarkable, non-productive time of the masses has its own particular sensorial formation, which Nose’s film tries to realize by emphasizing the movement of vision itself, the “seen” and “touched” sound, and the less-than-significant, barely registering customs of the everyday. At a time when open criticism was increasingly impossible, Nakai and others set

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<sup>135</sup> Even the scenes of men working in heavy industrial factories show men laughing and gossiping while working, and focus on the expressions and actions of different individual workers, ranging from young to old. Moreover, this section of the film showing a more instrumental time of the factory is squeezed between sections portraying a more everyday sense of time.

their focus on the various itinerant, creative forces of the masses as manifested in their everyday pleasures and techniques. Nakai's practice suggests that any inventive critique must emerge from these very practices, rather than on some abstract ideology from above, since these are what the masses usually "have" in spite of intense repression and mobilization. These overlooked practices are very difficult to fully discipline since they never really coagulate into any significantly determinate form.

The film can be seen as active experiments in realizing the "pleasant bounding within the unevenness of signification" Nakai glimpsed in *Spring* or the imperceptible forces of creation itself as manifested in the innumerably minute gestures, customs, and techniques of the people that lie along side, before or after the visual, aural or hermeneutic. These "unworked" energies that do not necessarily achieve any final form or significance are different from the conventional epistemological registers of creation: means and ends, subject and object, thought and practice, or in sum, the linear time of capitalist wartime production and repetitive time of mass consumption. In this untimely time that is already always *here* and *now* but does not particularly lead anywhere, the potential to "do, or think *otherwise*" exists.<sup>136</sup> This is the moment of the political as "chance" and "opportunity" in the present that Nakai wanted to unearth within worldly time, which was increasingly being displaced by an instrumental notion of the political as realizing a productive, technological utopia. While at times it might seem that he is irrationally fetishizing or mystifying creativity and invention, his grounding of it in mundane, secular time differs from the aesthetics of fascist cinema described by Benjamin, which merely gives people an avenue for liturgical expression.

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<sup>136</sup> Ricco, 72. Emphasis mine.

## VI. THE BODILY TECHNOLOGIES OF SPORTS

### *Sports as a Realization of “Technological Time”*

We catch a further glimpse of this immanent, non-successive “technological time” and sensation in two of his essays on the new sensations of modern sports published in 1930 and 1933. In these essays, Nakai begins by criticizing theories of sports based on some natural instinct towards production. For example, theories that see sports as playful preparation for so-called real, economic production of material goods or as expenditure of surplus energy left over from productive activity.<sup>137</sup> Nakai instead writes that “the human acts we usually call sport are largely indifferent to this idea of technology [technology as “tools” or means to an end], indifferent to an understanding of ‘reaching somewhere’ (*nani nani ni made*) or being ‘for something’ (*nani nani no tame ni*). Rather, in their character, these acts simply enhance and bring to light the meaning itself of technology.”<sup>138</sup> Instead of seeing sports in relation to an idea of technology as an instrumental means of production, Nakai focuses on its “structure of feeling” (*Stimmung*), which he says is “a particular existence based primarily on bodily technologies.”<sup>139</sup> By analyzing the bodily technologies of sports, he seeks to highlight the very creative potential and interruptive force of technology itself in a different way from his writings on “technological time” and the “new sensorial formations” of film. This potential of technology itself cannot be understood as an

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<sup>137</sup> Nakai, “Supôtsu kibun no kôzô” (“The Structure of Sports Feeling”), *NMz* 1:394-395. Nakai, “Supôtsu no biteki yôso” (“The Aesthetic Aspects of Sports”), *NMz* 1:407-408.

<sup>138</sup> Nakai, “Supôtsu kibun,” 393. Brackets mine.

<sup>139</sup> *Ibid.*, 393. In this essay, Nakai also discusses the “structure of feeling” of the spectator in sports.

instrumental use of the body “for something” or as bodies “reaching somewhere” but has its own singular structure of feeling or existence in sports.

### ***The Tense Feeling of Sports***

First, Nakai describes the “tense excitement” of the sports player facing the “many white, straight, and curved lines, circles and ovals, etc. that pierce the eyes when one steps onto the field.”<sup>140</sup> The relation between the sports player to these lines is not that of a “physical spacing or interval” (*Abstand*) but more of an “existential distance (*Entfernung*) that needs to be run through, overcome or reached.”<sup>141</sup> Within the “tense feeling” of the moving bodies, a “moment of transformation is...at work, which through bodily strength, transforms these physical intervals into *something having the character of distance*.”<sup>142</sup> This “tense feeling” has a “character of the middle” (*chûkan-teki seikaku*), which “for the time being, is distinct from [a meaning of] distance in the sense of tools that are ‘for something’ or for ‘reaching somewhere,’ Nakai writes.<sup>143</sup> Instead “the mere distance itself of ‘reaching’ (*ni made*) or ‘for’ (*no tame ni*); the fact itself of having to run past or go through; or signification (*yûigisei*) itself comes to appear,” he writes.<sup>144</sup> For Nakai the space of bodily technology is neither a measured space to be traversed using various instrumental means nor some existential state of arriving at a final end but might be expressed as a kind of striving, panting distance of ‘for’ without being ‘for something,’ of ‘reaching’ without attaining something, of ‘running past’ or ‘going through’ without arriving anywhere. This intense distance of sports

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<sup>140</sup> Ibid., 396.

<sup>141</sup> Ibid.

<sup>142</sup> Ibid. Emphasis Nakai’s.

<sup>143</sup> Ibid.

<sup>144</sup> Ibid.

neither completely has the character of an epistemological category (i.e. object, space) nor an existential condition (i.e. subject, time) but is what he calls, a “quasi or para-existential”—literally that which exists beside, near, or alongside existence.<sup>145</sup> We might describe para-existentials as innocuous, difficult to localize forces and relations, or as a singular feeling that is never worked up into or contained within a subject or condition.

### ***The “Spatial” Character of Sports***

Nakai gives an example of a para-existential force from his favorite sport of rowing:

Another three *cho!*—the mind of the coxswain gazing intently at the goal and urging forth another sharp spurt at the end of a tight match and bitter struggle deeply penetrates from a particular angle the entire structure of production that pants and strives from plan to plan, revealing a raw, bare spatial character arising out of human existence.<sup>146</sup>

The “structure of production” here is a shifting, “sweating,” uncontainable structure that moves quickly and unexpectedly from plan to plan, not a simple structure of implementing the proper means to reach the goal. Thus the bodily

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<sup>145</sup> Ibid., 397. He borrows this term from the German phenomenologist, Oskar Becker. See in particular, Oskar Becker, “Von der Hinfälligkeit des Schönen und der Abenteuerlichkeit des Künstlers : eine ontologische Untersuchung im asthetischen Phänomenbereich” (On the Evanescence of Beauty and the Adventurousness of Artists: an Ontological Investigation into the Realm of Aesthetic Phenomena), *Jahrbuch für Philosophie und phänomenologische Forschung, Ergänzungsband, Husserl-Festschrift* [Yearbook for Philosophy and Phenomenological Research, Supplementary Volume in Commemoration of Husserl], 1929. 40. A rough contemporary Japanese translation also exists. See Becker, *Bi no hakanasa to geijutsuka no bōkensei: biteki genshō ryōiki ni okeru sonzaironteki kenkyū*, tr. Yuasa Seinosuke, (Tokyo: Risōsha, 1932). Another work that Nakai also borrows from is Becker, *Mathematische Existenz: Untersuchungen zur Logik und Ontologie mathematischer Phänomene*, [Mathematical Existence: Investigations into the Logic and Ontology of Mathematical Phenomena], (Halle: Niemayer, 1927).

<sup>146</sup> Nakai, “Supōtsu kibun,” 397. Three *cho* is around three hundred and twenty-seven meters.

formations of sports are always vanishing unexpectedly into one another, leaving barely a trace—what Nakai describes as a “raw or bare (*nama no mama*) spatial character.” This para-existential spatial character can neither be described as a physical gap nor as an existentially charged space of rapture but perhaps as a stripped down, itinerant, incessantly disappearing space of “chance” wherein lies its power and dynamicity.

### ***The Sociality of Sports***

Nakai then looks at the “shared inter-being” (*kyôdô sôgo sonzai*) of sports, which is not “communal” but rather, a “particular common world and accompanying feeling that discloses.”<sup>147</sup> Nakai is interested in a kind of common “being-in-separation” in sports, rather than some feeling of organic fusion. He gives an example of this from rugby:

When the whistle blows and the rugby match begins to swing into action; when we gaze intently at each of our fourteen teammates and...each of the fifteen opponents moving silently in a deep math to their proper positions the moment the ball drops to one of us, we see the waves of an unseen force, centered on the ball, moving in two directions, one after another. Aside from scoring, the formation of a relation where one cannot even take a moment’s breath, or one pass of a half-back to a tail back, must be the “constitution of an unseen relation” that calls out to the fourteen other rugby players. If a “sense of the formation” is characteristic of today’s new art, then rugby, where the touchlines are the canvas and the spikes are the paint, is the dream of a reality where each moment crumbles away. Or we might further say that rugby never bears [the weight] of the eternal.<sup>148</sup>

Every instance in rugby constitutes an unseen, fleeting equation or structure between each of the players on the field. Wherever the ball is, the players

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<sup>147</sup> Ibid., 398.

<sup>148</sup> Nakai, “Supôtsu no biteki yôso,” 410-411. Brackets mine.

move in two opposing directions and position themselves in relation to it accordingly like an instantaneously shifting formation. One pass creates a whole different relation or equation among the players, and this relation hardly lasts a “moment’s breath” before another “unseen relation” or “wave of an unseen force” bursts forth. Thus the “sense of the formation” registers as a barely visible, finite relation of incessant difference between and among the bodies on the field. This relation always crumbles away and vanishes without ever completely doing so since each formation is always related in some unexpected way to another. The relations are not fixed, determinate ones between the members but rather fleeting, itinerant relations amongst, amidst, or “inter.” They are not a collective “being of something” or “as something” but a more finite “being amongst and between” where the unexpected or astonishing is possible.

### ***The Technological Character of Feeling in Sports***

Nakai then looks at the “physical technological character of sports feeling.”<sup>149</sup> A central aspect of sports is the specific bodily form developed through practicing, learning, planning, testing different actions, and making mistakes. The moment one falls into a certain form, one instantaneously has a feeling that might be expressed as, “Ha, ha! This is it!” according to Nakai.<sup>150</sup> “This very feeling that tastes growth itself, which ripens atop of time, is the exultant grin of the sportsman...It is a mood drunk in the sweetness itself of *time*, a time that ripens itself,” he writes.<sup>151</sup> While here he seems to be emphasizing a certain final state or achievement, the para-existential “state” of

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<sup>149</sup> Nakai, “Supôtsu kibun,” 400.

<sup>150</sup> Ibid., 400.

<sup>151</sup> Ibid., 401. Emphasis Nakai’s.

“This is it!” is in fact, less than this—it is a grin (not a smile), “growing itself” (not growth or development), a ripening time (not a linear time). Nakai adds:

The ‘*this*’ itself of ‘Ha ha! *This* is it!’ is a grasping and revealing of a thrown plan (*Geworfener Entwurf*) within the muscles in an existential formation of ‘actuality.’ In this sense, it might be said to temporarily have a direction towards an interpretation of being through the physical, bodily structure; thus, here there is nothing that can be described by words. In this sense, it does not have a structure of ‘as’ (*Als-Struktur*).<sup>152</sup>

Struggling to find the words to describe this technology of the body falling into a form, Nakai nevertheless persists in putting it into language. He emphasizes the “*This*,” of “This is it!” in order to stress that finding one’s form is not a completed state but something slightly less. Falling into a form is instead a “grasping” or “revealing” by the nerves, blood, muscles, and so on of an instantaneously developing or “thrown” plan; what Nakai calls a “deep easefulness (*fukai kaitekisei*) of the muscles evaluating their own actions using their inner nerves,” in his earlier 1930 essay.<sup>153</sup> It is a “going towards” some interpretation of being expressed in form, and so can never be fully represented “as” this or that form—thus he simply stresses the untimely punctuality of a partial sentence: “*This*,” not, “This is it!” Only after the fact, can we identify “this” form “as” something. The unexpected, eruptive instance of bodily form is neither unseen nor clearly visible, but rather imperceptible, remaining in vision yet never fully becoming visible.<sup>154</sup> This “technology of sports,” Nakai writes, “has a particular aesthetic structure as the middle (*chûkantai*) between natural beauty and artistic beauty, which might be called

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<sup>152</sup> Ibid., 401. Emphasis Nakai’s.

<sup>153</sup> Nakai, “Supôtsu no biteki yôso,” 415.

<sup>154</sup> For a more rigorous treatment of imperceptibility and what he calls a “disappeared aesthetics,” see Ricco, 30-66.

a purely act-like sense of beauty that is always disappearing in the moment.”<sup>155</sup> Neither a purely external, natural beauty nor a purely internal artistic beauty, the inventive, interruptive force of technology (and of art itself) as expressed in the constitution of bodily form lies in the active, disappearing “middle.” Or more accurately, in “middle”—always *amidst* and *among* (rather than “in-between”) the instantaneous, microscopic, and at times, easeful interactions of bodies, muscles, nerves, arms, legs, lines, poles, and so on.<sup>156</sup>

### ***The Eruption of Form in Sports***

Finally, Nakai describes a more intense mode of the creative, untimely eruption of form arising when the body is at the limits of exhaustion amidst an intense race or heavy training. Whereas previously he described a more passive occasion of falling into a form, here he focuses on making an unexpected one happen. “When passivity in the sense of feeling the pain persists in bearing, resisting, breaking through, and enduring that pain, it contains something more active than the active. Here the body becomes architecture through the blood that rises forth out of the weight of fatigue,” Nakai writes.<sup>157</sup> In bodily exhaustion an instantaneous, uncanny “architecture” that is neither a determinate form nor sublime state often arises. In the earlier essay he calls this unexpected spurt of bodily form, an “act within an act.”<sup>158</sup> The visible form of the sportsperson’s act is less important than the imperceptible (not invisible) “sovereign” act of the form producing itself as the realization of an astonishing, dynamic architecture of blood, muscle, and

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<sup>155</sup> Nakai, “Supôtsu no biteki yôso,” 416.

<sup>156</sup> Ricco, 3-4.

<sup>157</sup> Nakai, “Supôtsu kibun,” 402.

<sup>158</sup> Nakai, “Supôtsu no biteki yôso,” 417.

nerve.<sup>159</sup> The feeling involved is one of “entrusting one’s body to the water or oars; a limit, moreover, where one can row with ease even though it is most painful, a relaxation found in the completely tense limit,” Nakai writes.<sup>160</sup> Here one is outside or rather, beside oneself—subjectivity is beside the point. One “abandons” (not escapes) the self at the extreme limits of bodily exhaustion where there is often an uncontainable, expanding, “serene” feeling of ease and relaxation.<sup>161</sup> This abandonment at the limits of bodily exertion is “an instantaneous grasp of a *morphe* that grows; a particular existential deepening of time itself.”<sup>162</sup> The non-linear time of the form that creates itself is not only a “deep time” but also “‘the same now of a different time;’ or in other words, a non-flowing time that is simply spreading out right there.”<sup>163</sup> This instance of self-erupting form in sports characterizes “bodily technology,” and as we previously saw in his writings on inventive “technological time,” it occurs in a different, more textured, time that folds out.<sup>164</sup> This is not outside time as we know it but rather, what imperceptibly persists throughout it. Nakai suggests that this time of art and invention can be found in everyday practices such as sports, in the “new sensorial formations” characterized by film, and ultimately in our singular, concrete, often barely visible interactions.

### ***The Para-existential Forces of Sports***

The para-existential spatiality of moving bodily formations in sports, which is a sweating, vanishing distance and structure of “for” or “reaching”

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<sup>159</sup> Ibid., 417.

<sup>160</sup> Nakai, “Supōtsu kibun,” 402-403.

<sup>161</sup> Ibid., 403.

<sup>162</sup> Ibid.

<sup>163</sup> Ibid.

<sup>164</sup> Ibid.

itself, without being “for something” or a “reaching somewhere”; the “shared inter-being” of intricate, instantaneously shifting bodily formations or equations that never quite fully coagulate into fixed forms or states; the “deep easefulness” and untimely punctuality of the body falling into a form through practice, trial and error, and so on; and finally, the “act within the act” of form inventing itself at the limits of bodily exhaustion are all specific examples of what Nakai means by technology. Technology is not simply the material means of production nor is it merely human subjects instrumentally producing their own institutions, ideas and goods but rather, the interruptive force of untimely and (at times) astonishing creation itself. In the bodily technologies of sports, Nakai seeks to disclose these imperceptible forces and relations, spatialities and temporalities that lie alongside (“para”) everyday existence. It is in these difficult to perceive (and therefore, discipline) forces and energies where the potential for unexpected change and perhaps, transformative critique lies.

## **VII. CONCLUSION: SEEKING THE POLITICAL**

In the context of a growing fascism in 1930s Japan, technology has usually been understood narrowly as outright exploitation of labor by machinery or broadly as rational techniques to encourage creativity, productivity and active cooperation with the plans of government and business.<sup>165</sup> Both approaches have yielded significant insight into how understandings of technology influenced methods of discipline under fascism. Yet they only reveal some aspects of how fascist power worked in the 1930s. Nakai’s interpretation of technology in terms of the “commodification” and

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<sup>165</sup> For more on irrational and rational understandings of technology, see Kawahara.

“specialization” of every aspect of life adds an often forgotten dimension to our understanding of power during this time. The “intellectual mechanization” of life under large capitalist organizations, the subjection of the people to the profit-driven plans of monopolistic combines, their incorporation into the “structures of buying and selling,” and reification of consciousness all served to discipline the creative energies and imaginations of the masses, according to Nakai. Until his arrest, he continued to analyze the techniques by which capital disciplined the people, despite the prevalence of irrationalist, spiritualist ideologies in the public sphere and an increase in technocratic efforts by the state to rationalize all of society. Although his more cultural critique lacks an understanding of the specific ways people were exploited by capital (i.e. the colonized, women), it is nonetheless insightful. It suggests that fascism cannot be understood as separate from the efforts of capital to commodify and therefore, produce every aspect of life, from the economic to the political to the cultural

Nakai also put forth a theory of technology different from both a narrow understanding of it as dead, instrumental machinery and a wider, subjective understanding of it as production and creation in general. As capital and the state increasingly used various techniques in the 1930s to mobilize and produce all aspects of people’s lives, understandings of technology as creative action were co-opted into these efforts as well.<sup>166</sup> Rather than seeing technology as the active, instrumental production of commodities, institutions, ideas, and so on, however, Nakai saw technology as absolutely inseparable from modern human subjectivity and sensation—as the unforeseen, often overlooked, para-existential forces of invention itself. He tried to articulate this

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<sup>166</sup> For example, see Aikawa, “Gendai gijutsuron.”

in various ways: as the inventive “middle,” “technological time,” the “new sensorial formations” of film, and the “bodily technologies of sports.” At a time when the critical energies of the masses were more and more disciplined by the techniques of capital, and when openly organizing a resisting political force was increasingly impossible, Nakai sought to highlight and therefore, stimulate these imperceptible, creative energies at work in the everyday practices, sensations and techniques of the people within a heavily technologized and technocratic society. In short, while capital was attempting to foreclose the possibility of transformative critique by techniques of mobilizing human desire and practice into the mechanisms of profit-making, Nakai sought other domains, multiple techniques, and itinerant forms of political action. Rather than only engaging in a *politics* of building some counter-hegemonic force or collective resistance, he also sought after different “points of departure,” “acts within acts,” para-existential “middles” of chance and opportunity, and uncanny sensations irreducible to sight, sound or understanding as inventive sites of the *political*.<sup>167</sup> Thus Nakai suggests that technology is not merely about making things or ideas but about attending to the overlooked, unexpected and sometimes astonishing potential of creating itself, a potential that lies amidst the everyday structures and sensations of mass society.

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<sup>167</sup> Christopher Fynsk distinguishes between politics—“the play of forces and interests engaged in a conflict over the representation and governance of social existence” – and the political – “the site where what it means to *be* in common is open to definition.” Christopher Fynsk, “Foreward: Experiences of Finitude” in Jean-Luc Nancy, *The Inoperative Community*, trans. Peter Connor, et. al., (Minneapolis: University of Minnesota Press, 1991), x.

## CHAPTER 5

### NAKAI AND THE POLITICS OF THE EVERYDAY

#### I. 'THE LOGIC OF COMMITTEE' – TOWARDS A POLITICS AGAINST TECHNOCRACY

##### *From the Political to Politics: The Task of Logic of the Committee*

At this point, however, we should ask how this concern with the essence of technology as the unforeseen, overlooked forces of invention and critique really challenges the dominant systems of technocratic control and mobilization of all areas of life? Despite the presence of innumerable sites of critique and invention, are not these forces integrated into or diffused within the various social technologies of capitalist reproduction in the end? How can these diverse forces that constitute the *political* be mobilized into a potent, effective *politics* of changing the technocratic order towards a more democratic, equitable, and liberating one? Nakai was concerned with these questions as well, as demonstrated by his involvement with the consumer cooperative movement, and his involvement in the publication of the experimental journal, *Sekai Bunka* and the mass tabloid, *Doyôbi*, which led to his arrest in 1937.

As mentioned previously, Nakai's 1936 essay, "The Logic of Committee," deals directly with the question of organizing some political vehicle for transforming the capitalist, technocratic order. The "committee" is the autonomous political form that would transform the social technologies of capitalist society (i.e. the "commodification," "specialization," and "rationalization" of every aspect of life outlined above), which restrain the

critical, cooperative energies of the people. The committee would also contribute to the realization of a mass subjectivity infused with a “cooperative nature” and “critical nature,” yet firmly grounded in the multiple practices, techniques, and customs of the people, rather than in one privileged vanguard group (e.g. the “working class” or “nation”). “The Logic of Committee” formed the theoretical basis behind *Doyôbi*, whose objective, Nakai writes in the opening editorial for the October 20, 1936 issue, was the following:

Today, people are deaf and dumb within their groups.

By the readers becoming the writers, *Doyôbi* is seeking a new language whereby the readers first become the ears of several thousand people and then the mouth of several thousand people.

We are discovering a new voice through which several thousands of people can speak with several thousands of others. What human beings should discover [here] is not a machine or apparatus but rather, actions toward a new order.

We can say that the voices of the several thousand people of *Doyôbi* have not yet become the voices of several hundred thousands, several millions, or several tens of millions of people. This is because we are like deaf and dumb people acquiring a collective language.<sup>168</sup>

*Doyôbi*'s primary goal was to combat the alienation caused by the “specialization” and “commodification” of modern capitalist life. As we saw above, “specialization” prevents cooperation by creating specialized technical hierarchies and organizations while “commodification” stifles creativity and critique by incorporating human desire into the repetitive “structures of buying and selling,” the profit designs of large corporations, and the rational techniques of production and organization, according to Nakai. Being a

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<sup>168</sup> “Doyôbi kantôgen,” 35-36. Brackets mine.

newspaper based primarily on anonymous contributions and covering a wide range of topics from contemporary film to women's issues, *Doyôbi* would reverse the overwhelming barrage of "one-way sermons" and "bargain sale shouting" churned out by the capitalist media, which made people "deaf and dumb" to each other, and instead provide a vehicle for the expression and articulation of people's everyday social, political, and economic needs.<sup>169</sup> By "becoming the ears and voice of thousands of people," *Doyôbi* would be more than just an informational tabloid ("machine or apparatus") and perhaps a kind of loose "committee" for mass empowerment and social change. Thus before we examine the cultural politics of *Doyôbi* in more detail, it is important to first explore its theoretical basis, Nakai's anti-technocratic "logic of committee."<sup>170</sup>

### ***What is the Committee?***

A "committee" usually conjures up undemocratic images of corporate or governmental committees of technical experts or the Leninist "central party committee" of communist intellectuals that would guide the "unenlightened" masses towards revolution. In fact "committees" seem to be somewhat

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<sup>169</sup> Ibid., 35. According to Kuno, *Doyôbi* was modeled after the popular weekly journal, *Vendredi* (Friday), the main organ for the French Popular Front; however, *Doyôbi* was different from *Vendredi* since it had less of a character of intellectuals "enlightening the uneducated masses." *Vendredi* openly listed the names of over forty prominent anti-fascist intellectuals such as Romain Rolland and André Gide on their front page, and consisted primarily of their articles. *Doyôbi*, on the other hand, was based on anonymous reader contributions, and sought maximum reader participation in formulating its content. See Kuno, "Bunka Shimbun *Doyôbi*," *Doyôbisha*, 2.

<sup>170</sup> There are many interpretations of this famous essay, which attests to its continued relevance. I have been aided primarily by the following two works: Aaron Moore, "Nakai Masakazu's Theory of Historical Collective Praxis in 'linkai no ronri': Contributions Towards a Radical Democratic Philosophy," M.A. Thesis, Cornell University, 1999 and Takeuchi Shigeaki, *Kattatsu na gûsha: sôgôsei no naka no shutai* [Magnanimous Fools: The Subject Within Reciprocity], (Tokyo: Renga shobô, 1980), *Kattatsu na gûsha: sôgôsei no naka no shutai* [Magnanimous Fools: The Subject Within Reciprocity], (Tokyo: Renga shobô, 1980), 132-242.

alienated from everyday life. The committee Nakai envisions, however, is something akin to a popular movement on environmental or consumer issues, an independent newspaper, or an artist collective—in short, any group that articulates and mobilizes around hitherto unvoiced or repressed popular concerns that demand some form of egalitarian change in social, political, economic, or cultural relations.

First, let us examine Nakai’s overall diagram for the “logic of committee” (See Figure 4.2). The “Logic of Committee” consists of four primary moments—“Thought,” “Debate,” “Technology,” and “Production” – each representing a development in the history of rationality (more on this later). “Thought” and “Debate” form the moment of the committee’s “deliberation” (*shing*) while “Technology” and “Production” form the moment of the committee’s “representation” (*daihyō*). “Deliberation” is the moment of articulating the “potential energies of the masses,” while “representation” is the moment these “potential energies” or popular interests are translated into some form of action (“actual energy in language”).<sup>171</sup> “Deliberation” and “Representation” appear more specifically within the activities of the committee as “Proposal,” “Decision,” “Delegation,” and “Implementation.” “Proposal” and “Decision” fall under “Deliberation,” while “Delegation” and “Implementation” are under “Representation.”

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<sup>171</sup> Nakai, “linkai no ronri,” *NMz* 1:103.

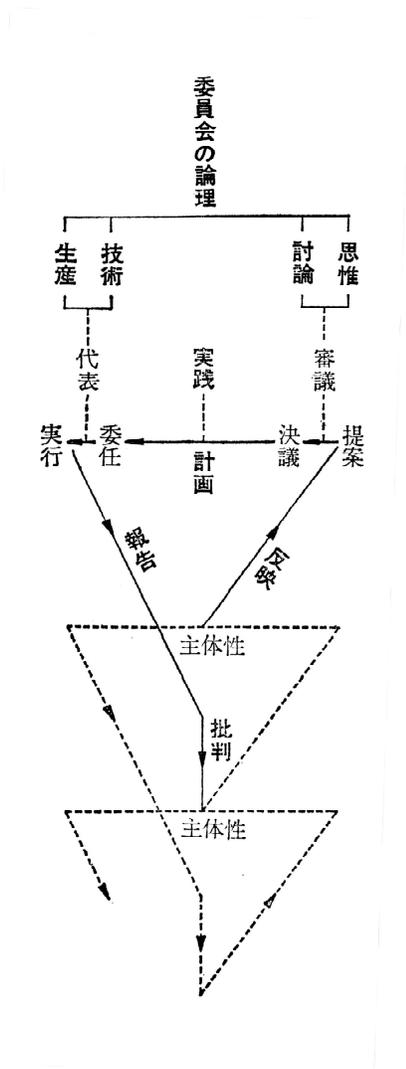


Figure 4.2 The Logic of Committee<sup>172</sup>

The activity of the committee begins with the “proposal,” which Nakai calls, a “primary reflection” of an “immediate lack” (*chokusetsu-teki ketsubōsei*) or “mediating alienation” (*baikai-teki sogaisei*).<sup>173</sup> Here, the unvoiced or repressed desires of the people are articulated in language in the form of a concrete proposal. Nakai calls this “reflection as proposal,” the “primary

<sup>172</sup> Ibid., 106.

<sup>173</sup> Ibid.

objectification of subjective conditions.”<sup>174</sup> The various unarticulated needs and desires that arise in everyday social existence (“potential energies” or “subjective conditions”) are formulated (“objectified”) into a proposal to be debated by the committee. For example, when people encounter higher prices of rice, lower salaries, and higher taxes amidst growing militarization and capitalist monopolization, their need for cheaper food is articulated by the consumer cooperative movement, which reflects this social need and puts forth proposals accordingly (e.g. demand the equitable distribution of government-stored rice at cheap prices). “Distorted” reflection of the peoples needs is also a possibility, according to Nakai—for example, by ideologies of hard work and self-sacrifice or new religious movements that divert attention away from the fundamental issue of food security.<sup>175</sup>

“After undergoing numerous questions, clarifications, and debates, the proposal reaches a decision,” Nakai writes, and in this process, “it is corrected from distortions in the understanding of the actual situation and filtered of lies and falsehoods.”<sup>176</sup> When the decision is made, the moment of “deliberation” is over, and “representation” towards concrete action begins. The moment of conversion to action is the formulation of the “plan” of action. To use the example of the consumer cooperative demanding the release of cheap government rice again, “planning” could be preparing negotiation strategy with the government, organizing mass demonstrations and education campaigns, and arranging mechanisms to distribute government rice equitably. Nakai

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<sup>174</sup> Ibid., 104.

<sup>175</sup> Ibid., 103. *Doyōbi* in fact covers the issues of high prices, ideologies of hard work and cooperation, and the spread of new religions. In his essay, “The Question of Rationalism,” Nakai says that unarticulated popular needs can even express themselves as “terrorism” and violence. See Nakai, “Gōrishugi no mondai,” 140.

<sup>176</sup> Nakai, “linkai no ronri,” 104.

calls the formulation of the plan, “the secondary objective conditionalization of the subject.”<sup>177</sup> Through “delegating” and “implementing” the tasks of the plan, the participating subjects attempt to objectively realize their needs. After this “delegation” and “implementation” of the plan comes the “report” to the people whose needs and interests the committee tried to previously articulate. The “report” inevitably runs into some discord with the people because of a disconnect, thereby engendering a moment of “critique” by those very same people whose needs are being reflected by the committee. For example, Koreans or *burakumin* might complain about discrimination in rice distribution or others might demand wider social reform such as job stability, lower taxes, or the expansion of cooperatives. This critique then leads to the formulation of another proposal by the committee towards a “planning” and “implementation” that would concretely address these concerns. Thus Nakai calls the “report” by the committee, the “tertiary subjectification of objective conditions,” meaning that the committee’s objective actions are democratically exposed to the subjective critique of the masses.<sup>178</sup> “Critique” is then the “quaternary subjective conditionalization of the object,” according to Nakai, meaning that the objective “report” is once again prepared to be re-articulated as subjective public opinion into yet another “quinary” concrete proposal by the committee (i.e. another “objectification of subjective conditions”).<sup>179</sup> Thus the whole process can be summed up as follows:

1. Primary objectification of subjective conditions (“Proposal”)
1. Secondary objective conditionalization of the subject (“Plan/Praxis”)
1. Tertiary subjectification of objective conditions (“Report”)

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<sup>177</sup> Ibid., 104.

<sup>178</sup> Ibid., 105.

<sup>179</sup> Ibid., 105.

1. Quaternary subjective conditionalization of the object (“Critique”)
1. Quinary objectification of subjective conditions (“New Proposal”)

As we can see, Nakai grounds this unending process of translating the unarticulated “potential energies of the masses” into concrete proposals and plans of action (“actual energy in language”) in a dialectical process of mass subjectivity. The “potential energies” are given concrete form as a proposal, debated, put into practice, critiqued, and given form again. This process not only transforms society but the people themselves, whose energies are given form and put into practice by the committee, which always then reports the often unexpected results back to the people. This in turn engenders a more involved critique and increasing demands on their part. The “potential energies of the masses” are the imperceptible, creative energies at work in the everyday practices, sensations, and techniques of the people, which Nakai strove to articulate throughout his career in his analyses of technology outlined above. He writes:

The actual circumstances [of life] are the foundation of the potential energies of the masses, and even though the circumstances demand a swell in these potential energies, if they are expressed in the expressive form of indifference, they will certainly be distorted into other directions, becoming dispersed actual energy, since a proper projection of that very foundation is lacking.<sup>180</sup>

Here he acknowledges that while there is immense “potential energy” for change among the people stemming from actual social conditions, they are often weak and easily distorted or dispersed by the social technologies of commodification, specialization, and rationalization, which he discusses

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<sup>180</sup> Ibid., 103-104.

elsewhere in “The Logic of Committee” and other essays discussed above.<sup>181</sup> The driving exigency behind the “Logic of Committee” then is to articulate a way to forge this dispersed, often distorted potential energy into a transformative subjectivity or social force with its own critical momentum.

### ***Deepening Subjectivity Through the Committee***

Yet how is Nakai’s committee, which uses the same technocratic terms of the very structures he criticizes, any different from a self-contained bureaucratic committee of specialists, a corporate information management system, or an authoritarian Leninist party?<sup>182</sup> Such committees of experts also go through the same process of proposal, debate, planning, implementation, and critique, yet they can hardly be called democratic and accountable. In fact specialized committees of experts are part of the system by which the “potential energies of the masses” are dispersed or distorted. However, there is an important difference between Nakai’s committee and the committees that characterize authoritarian or rationalist systems of control. While corporate or bureaucratic committees aim toward some form of linear progress and development (e.g. increasing efficiency and productivity), interestingly enough, Nakai’s committee chart moves downwards *towards* the “potential energies of the masses” or what he calls “practical subjectivity” (see Figure 4.2). In fact Nakai writes that this “diagram itself turning into something else bears an important meaning for the logic of praxis.”<sup>183</sup> Thus rather than being a committee standing above the populace, which channels their energies into

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<sup>181</sup> In “The Logic of Committee,” Nakai discusses the commodification and specialization of concepts from everyday life. See *Ibid.*, 95-103.

<sup>182</sup> Takeuchi, 147-148.

<sup>183</sup> Nakai, “linkai no ronri,” 107.

some determinate idea of progress without changing its very own power relations, Nakai's committee aims at democratically changing its very own structure or subjectivity. According to Nakai, the moment of "mediation" or "self-negation" is a fundamental part of the logic of committee.<sup>184</sup> It is the key to deepening and spreading egalitarian and democratic values.

Thus to take up the example of the consumer cooperative again, let us say that that the committee failed to distribute rice equitably to Koreans or did not take into account the structural aspects of their chronic poverty such as lack of legal rights, systematic job discrimination, and frequent racial violence. In order to address this, the committee would have to fundamentally change themselves by incorporating more Koreans and campaigning for social protections and better working conditions. The committee would need to transform itself from an organization that addresses the pocketbook needs of the Japanese middle classes to one that is sensitive to the different needs of a more marginalized population as well as the structural factors that lead to such marginalization.<sup>185</sup> Or perhaps it would have to dissolve itself and form an organization that addresses such wider structural issues of labor conditions or discrimination. Even if this antagonism leads to the dissolution of the committee or into a decisive split, however, it still succeeds in spreading egalitarian values to other sections of society, thereby deepening the democratic revolution or "subjectivity."

The committee's articulation of the "potential energies" or "subjectivity" of the masses in the form of a concrete proposal and plan of action becomes the "mediation" or "self-negating" moment for renewed creative energy

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<sup>184</sup> Ibid., 107.

<sup>185</sup> See Kyoto seikatsu kyôdô kumiai for first-hand accounts of how Nose Katsuo tried to negotiate the differences among members of the cooperative movement.

towards the forging of another collective subject or more “potential energy” dispersed to newer social subjects. The committee’s work is merely to serve as a mediation or focal point for generating a more critical, more involved collective subjectivity, rather than as an authoritarian guide for these popular energies. Nakai calls the committee’s mediating work, a “deepening” of subjectivity. “This deepening by a return from subjective condition to subjective condition—here lies the sense of true subjectivity, as well as the dialectical nature of transforming itself towards another mediation,” Nakai writes.<sup>186</sup> Different from the systemized subject of modern rationalist committees, which only critique and change themselves within certain ideological parameters or structural limits, the “subject as mediation” of Nakai’s committee is an endless process of subjective and social transformation (or “self-negation”). “Through such criticism, subjectivity truly passes through its own foundation—sub-ject—and sinks its back further towards a new, quinary proposal, or in other words, as the foundation for another objectification of subjective conditions,” Nakai writes.<sup>187</sup>

Yet despite this fundamental difference in direction between Nakai’s logic of committee and specialized technocratic committees, there is always the danger of bureaucratism or authoritarianism in his thought. The problem lies in the moment of the committee’s articulation of the “potential energies of the masses” into a concrete proposal and plan of action. Nakai calls this “reflection,” which suggests that the committee members have some expert ability to gauge and articulate the diverse needs of the people. There is an important difference between the “expression” of people’s demands and

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<sup>186</sup> Nakai, “linkai no ronri,” 107.

<sup>187</sup> *Ibid.*, 105.

creative energies as they are and the “reflection” of these same demands and energies.<sup>188</sup> “Reflection” by a committee in the name of the people can simultaneously become a way in which technocrats silence or repress their various demands. At this point, however, let us just keep this danger of the committee developing into a bureaucratic system of control in mind and continue to analyze “The Logic of Committee.”

### ***Logic as Living ‘Ratio’ (Rationality)***

The five moments that constitute the “Logic of Committee” (Thought, Debate, Technology, Production, and the moment that unifies these four, Praxis—see Figure 4.2) are terms that Nakai abstracts from historically specific “logics” that arose during periods of rapid cultural and social change. For Nakai “logic” is not some transcendent ideal but rather refers to the way people approach and understand the world, which in turn shapes culture and society. Thus in the end the “logic of committee” signifies the emergence of a new “logic” of a critically engaged and cooperative mass subjectivity that would transform the increasingly specialized and commodified reality of monopoly capitalism. He illustrates his historical idea of logic in another diagram (see Figure 4.3 on page 285). To quickly summarize this diagram, historically, there have been three distinct cultures, “Classical Culture,” “Middle Age Culture,” and “Modern Culture.” Each culture was characterized by a particular logic—“Spoken Logic,” “Written Logic,” and “Printed Logic” respectively. Also, in connection with the specific social system, even more specific logics arose. In the transformation from the “Clan System” to the “Slave System” during the period of classical culture, the “Logic of Dialectics”

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<sup>188</sup> Takeuchi, 152.

came about; in the shift from the “Slave System” to the “Feudal System” during the middle ages, the “Logic of Meditation” appeared; in the transition from the “Feudal System” to the “Commercial System” in early modernity, the “Logic of Experience” arose; and corresponding to the particular developments of the “Capitalist System” (Commercial System, Industrial System, and Financial System), the logics of “Action,” “Function,” and “Production” appeared respectively. “Debate,” “Thought,” “Technology,” and “Production” are the essential characteristics of each of these logics, and “Praxis” engenders the “Logic of Committee” by unifying these four historical moments, according to Nakai (see Figure 4.3, next page).

In the same way that Figure 4.2 illustrating Nakai’s “Logic of Committee” is similar to yet fundamentally different from technocratic, authoritarian committees, Figure 4.3 illustrating the history of logic mimics yet essentially differs from a dogmatic mechanical base-superstructure theory (see next page). Just by looking at the diagram, it seems that new logics merely reflect changes in the system and relations of production. However, Nakai reverses this and instead gives “logic” a principal role in instigating social change. He writes, “As one can see by this diagram, logic always plays some particular role in the crisis of the collapse of one system and its reorganization into another. That is to say, we see logic itself becoming a living *ratio* (reason) within a rift, or in other words, logic itself becoming a mediation.”<sup>189</sup>

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<sup>189</sup> Ibid., 68.

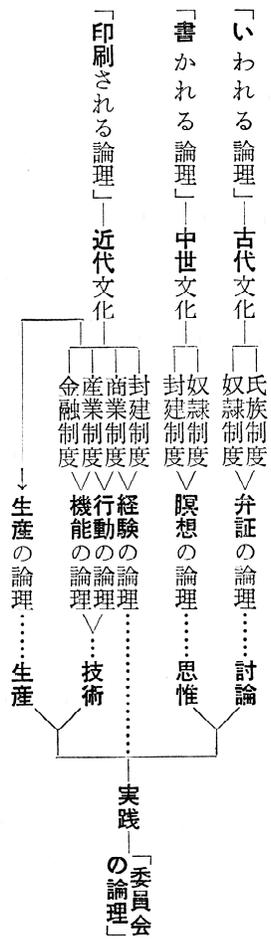


Figure 4.3 The Dialectic Between History and Logic<sup>190</sup>

<sup>190</sup> Nakai, “linkai no ronri,” 91.

For example, according to the figure, the “Logic of Experience” plays an important role in the transition from the “Feudal System” to the “Commercial System.” With the development of new forms of transportation and the rise of commerce, tightly-knit communal relations are dissolved, and individualistic, utilitarian human relations are formed—“humans are wolves towards humans,” as Nakai describes it.<sup>191</sup> The rise of print technology and “Print Logic” enabled people “to interpret [words] according to their particular life experiences or circumstances,” whereas under feudalism, words had the character of univocal divine sanction or meaning as illustrated by the practice of biblical hermeneutics (or “the Logic of Meditation”).<sup>192</sup> As commerce dissolved feudal economic relations and print technology enabled varying interpretations, people began to understand themselves more as individuals, or as Nakai puts it, “lonely individuals” in the universe.<sup>193</sup> From out of the “Logic of Meditation” under feudalism whereby subjects understood themselves as *subject to* some higher order, a tendency emerged whereby subjects began to understand themselves as disinterested observers or interpreters of and actors on an external world (i.e. as *subjects*). Thus with the crisis of the collapse of feudalism and the rapid rise of capitalism, people developed a new “living *ratio*” of “individual experience” within that social rift to deal with that crisis. This “living *ratio*” formed the basis or “mediation” for a new social system, new social relations, and a new form of subjectivity. Mercantile capitalism

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<sup>191</sup> Ibid., 54.

<sup>192</sup> Ibid., 53.

<sup>193</sup> Ibid., 54, 55.

developed out of guild/feudal capitalism, market relations developed out of patriarchal relations, and the epistemological subject developed out of the subservient subject.

The “living *ratio*,” however, which provided a sense of liberation from feudalism, soon spread throughout society and developed into a logic of control or hegemony (the “logic of experience”), according to Nakai.<sup>194</sup> The logics on Nakai’s diagram such as “Meditation,” “Experience,” and “Action” are these hegemonic logics that originally began as tendencies or “potential energy” filled with transformative possibility during periods of crisis. Thus the formation of the individual subject, new commercial relations, and new forms of communication soon became the basis for the commodification and abstraction of individual labor, the formation of impersonal market relations and capitalist industry, and the alienation of words from everyday life through uncontrolled market circulation. In short the individualistic, interpreting subject of the “Logic of Experience” became the ideal subjective comportment or “logic” to sustain the capitalist system since it justified the commodification of labor and market freedom, for example. Capitalism comes to be subjectively anchored in the logic of experience.

The “Logic of Committee” then was to be the new “living *ratio*” that would form a collective subjectivity imbued with a “critical and cooperative nature” to overcome the technocratic “Logic of Production.” The logic of production was characterized by the disciplining of the people’s creative energies through the “intellectual mechanization” and functionalization of life under large capitalist organizations, the profit-driven plans of monopolistic combines, the overwhelming “structures of buying and selling,” and the

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<sup>194</sup> Ibid., 53-56.

employment of rational techniques of production and irrational ideologies, for example.<sup>195</sup> The committee's role was to articulate or "mediate" the diffuse, often vaguely formulated interests of the people into a proposal, implement the proposal, and report the results back to the people with the express goal of fully subjecting itself to the potential energies of the masses, thereby encouraging a more critically involved and focused subjectivity. In a technocratic capitalist world where not only consumption and production were alienated from concrete, sensuous activity but the very structure and meaning of collectivities such as "nation," "corporation," "family," and "culture" also seemed abstract and beyond human control, the committee would instead be a specific collective subject grounded in clearly articulated projects and most importantly, always be subject to the needs of the people (i.e. be "self-negating"). The committee would establish a "living *ratio*" that brought out the creative energies of the "Logic of Technology," which were being disciplined by the social technologies of capitalism and repressive policies of fascism. Yet what is to prevent the living "logic of committee" from becoming yet another hegemonic logic that again stifles the potential energy of the masses? What is the source of the critical power of the masses that could prevent such hegemony and how could it be sustained?

### ***The Structure of Communication***

As we have seen from his explorations on technology, Nakai always affirms an irreducible critical potential inherent in the customs, practices, and

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<sup>195</sup> Nakai reiterates his theory of technology as the unexpected, dynamic forces of creativity itself in this essay, thereby insisting on the irreducible nature of the creative forces of technology. See *Ibid.*, 80-90. He discusses how these forces of technology have been co-opted and diverted by increasing "specialization" and "commodification," which have restricted "cooperation" and "critique" on the part of the masses. See *Ibid.*, 99-102.

techniques of everyday life. “The fact that they could discover something rational within the movement of existence itself; that they could rationalize their own lives within such movement—this is the pride of human beings, who have made their way through these thousands of years,” Nakai writes in the same *Doyôbi* editorial that announced the tabloid’s goal of forming a new collective language amidst the “deafening” structures of capitalist modernity.<sup>196</sup> By “rational,” Nakai means the various “living *ratios*” that humans have collectively formed throughout history to overcome periods of social crisis. While historically these have always turned into hegemonic logics of control, newer “*ratios*” in turn have always sprung up from the “potential energies of the masses.” Nakai explores these critical energies further by outlining a general structure of communication in everyday life that always generates some form of “questioning” or “negation” of social reality.

Nakai describes this structure of communication in another diagram (Figure 4.4).<sup>197</sup> Instead of minutely analyzing this complex figure, I will just outline some of its basic features. Nakai first differentiates between “Thought” and “Debate.” “Thought” is the act of constituting meaning “qualitatively,” while “debate” is the act of extending meaning “quantitatively.”<sup>198</sup> In thought, statements or phenomena are subject to questioning and examination, thereby becoming objects of critique. A critical “conviction” often emerges from this

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<sup>196</sup> Nakai, “Doyôbi kantôgen,” 34-35.

<sup>197</sup> Nakai, “linkai no ronri,” 80. Nakai borrows heavily from the phenomenologist Adolf Reinach’s inquiries into the foundations of social consensus in developing his theory of communication. See Adolf Reinach, “On the Theory of Negative Judgment” in Barry Smith, ed., *Parts and Moments: Studies in Logic and Formal Ontology*, (Munich: Philosophia Verlag, 1982), 315-377. See also Nakai’s engagements with Reinach in Nakai, “Hatsugen keitai to chôshû keitai narabini sono geijutsuteki tenbô” (The Form of Enunciating and the Form of Listening, and their Aesthetic Prospects), *NMz* 1:250-263 and Nakai, “Imi no kakuen hôkô narabini sono higekisei” [The Expansive Direction of Meaning and its Tragic Nature], *NMz* 1:264-274.

<sup>198</sup> Nakai, “linkai no ronri,” 71.

qualitative constitution of meaning in thought. Criticism is precipitated or “mediated” by a “negative judgment” within oneself. A negative judgment has two moments: a question (is the rose red?) towards some positive judgment (the rose is red) and an evaluative answer (the rose is not red).<sup>199</sup> All convictions must undergo the test of negative judgment, and if they fail that test, they become critical convictions. However, for Nakai, critical convictions are not formed merely within the abstract individual but in relation to some social space or context—the large factory, the office, the movie theater, or the cooperative, for example (the institutions of high capitalism or technological modernity). Only questions and answers expressed within some social, interactive space constitute critical convictions. Thus “qualitative” constructions of meaning within the individual only occur within “quantitative” exchanges of meaning between people in definite social spaces.<sup>200</sup>

The conviction enters language as an “assertion;” however, it never enters language continuously or in some pure, unmediated form. The assertion is altered by power relations, large institutions, the prevailing ideology, other people’s opinions—in short, all of the techniques Nakai discussed before whereby the creative energy of the masses are disciplined. Nakai calls this alteration in communication, “the structure of lying.”<sup>201</sup> Thus despite the presence of innumerable questions and critical energy generated in everyday life, the dominant systems of technocratic control and mobilization work hard to prevent the emergence of new, transformative meanings.

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<sup>199</sup> Ibid., 75.

<sup>200</sup> Thus for Nakai, cinema is a politicized arena with revolutionary potential because the mass spectator is immediately transformed into someone who makes “negative judgments” on social reality—or into an “expert” as Benjamin puts it.

<sup>201</sup> See Figure 4.4 and discussion in Ibid., 72.

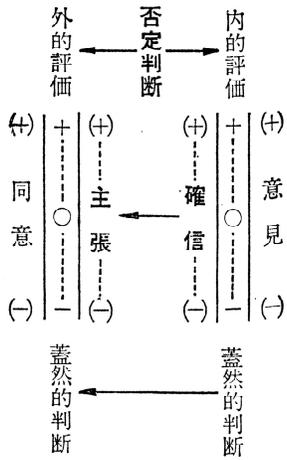
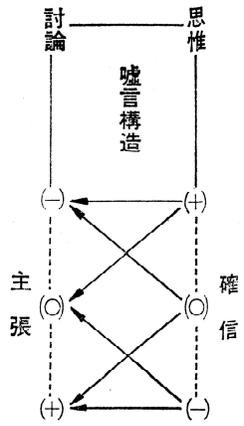


Figure 4.4 The Structure of Communication and Judgment<sup>202</sup>

<sup>202</sup> Ibid., 80.

As illustrated by the publication of *Doyôbi*, Nakai and others placed their hopes in providing an expanding venue for public debate, a space where people could express and articulate their needs and interests. While there was no guarantee that people would generate a strong enough critique to break through the “structures of lying,” the tabloid still provided a rare space whereby people could learn and debate, thereby creating unexpected social critique and energy. In “The Logic of Committee,” Nakai continues with his outline of a general structure of communication in everyday life by exploring the nature of debate. It is only through proliferating debate that dominant ideologies or the social consensus can be thrown into question.

When the critical conviction or assertion is presented as a question awaiting the listener’s “evaluative response” rather than as an internal “absolute conviction,” the space for “debate” is created, according to Nakai.<sup>203</sup> Even though the assertion is a critical conviction that has undergone the process of negative judgment within the speaker, the listener has not yet evaluated it for truth-value or agreeability. The assertion thus awaits evaluation by the other. The listener also is not just a passive responder. For the listener, the speaker’s assertion is a “positive judgment” that should be subject to questioning and answering, and perhaps, a reply in the form of another assertion that questions the whole basis of the speaker’s assertion. This is the moment whereby dominant ideologies or the social consensus (“the structures of lying”) can be thrown into question. The speaker of the first assertion can also question the responder’s assertion or convictions, and so on. In this way, new meanings are formed. By creating a space of debate for a multiplicity of assertions and counter-assertions, *Doyôbi* would hopefully

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<sup>203</sup> Ibid., 77.

question and generate critical momentum toward alternate visions to the restrictive ones of technocratic modernity. The constant exposure to public questioning would ensure that the “committee” would never become a bureaucratic form of control since it would always have to justify itself. The constant questioning would also generate new ideas for the committee, thereby giving it momentum.

Yet the provision of ready-made answers to common questions is exactly what makes the institutions of capitalist modernity (factory, family, nation) so powerful. For example, Japanese fascism provided people with a concrete sense that they were taking part in a world-historical project of building a modern, prosperous empire. Thus it provided a powerful response to a growing anxiety and frustration over the devastating effects of capitalism, which caused widespread unemployment, social conflict, alienating working conditions, and increasing prices, among other things, without fundamentally changing those capitalist relations. The institutions of Japanese fascism were increasingly able to appropriate or exclude questions that challenged it. Thus Nakai’s “committee” was designed not only to question, but more importantly to question in a manner that would precipitate an unprepared or new response by the institutions of power. In short, a questioning that would catch the dominant ideologies off guard.

### ***The Critical Power of the Question***

As we have seen, Nakai devoted much attention to these type of unexpected, unforeseen, and overlooked “questions” or forces of invention in his other work on the new sensations and structures of modern life. The objective of “The Logic of Committee,” however, was to intensify these forces

of invention to stimulate social change or the formation of a new “living *ratio*” different from the one sustaining high capitalist modernity. In the essay, Nakai identifies the source of this constant ability to question and therefore “negate” dominant assertions and convictions as the “indifferent point” within oneself and the other.<sup>204</sup> The “indifferent point” is the distance one can always take from one’s own convictions or other people’s statements, which is always made explicit in the act of questioning. The “indifferent point” also represents the potential of the other person to throw one’s own convictions into question. In other words, there is always an “indifference” towards absolute validity within any statement or conviction. No matter how dominant a conviction or assertion is, it can always be questioned. In another essay where he develops this concept of “indifferentness,” Nakai writes:

There is something that stimulates a doubt; something like the chill of the split self; that is to say, something like ‘me’ being silenced by a bottomless indifferentness (*mukanshinsei*), which exists in the form of an *inner language* to be feared within the depths of conviction. At the same time, there is also a negator who always listens, an “other” in the form of an *outer language* within the assertion. Does not language stand amidst these “two solitudes,” within a “questioning” in this sense?<sup>205</sup>

Thus language is not the bearer of univocal injunctions or universal truth but always exists in a tense field of questioning within “inner language” (the indifference within oneself) and “outer language” (the indifference of the other). Language is a field of political struggle whereby new questions and meanings emerge. Politics and language can never be fully folded into an overarching

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<sup>204</sup> Nakai borrows this term from the philosopher, Wilhelm Windelband. Ibid., 77-78. See especially Wilhelm Windelband, *Beiträge zur lehre vom negativen urteilen* [Contributions to the Doctrine of Negative Judgment], (Tübingen: J.C.B. Mohr, 1921), 167-195.

<sup>205</sup> Nakai, “Imi no kakuen hōkō narabini sono higekisei,” 265-266.

logic of production as the state sought to achieve through its technological imaginary. Unexpected, contingent critiques or antagonisms would always arise. Nakai's objective was to somehow proliferate and intensify these nodes of conflict within the technocratic structures of daily life.

This "indifferentness" or potential for negation and critique does not just exist in a void but always within concrete social relations—in Nakai's case, technocratic relations of control pervading the media, workplace, government, and marketplace that restrain the creative energies of the people. Therefore unexpected, unforeseen critical questions and assertions, no matter how weak or dispersed, always attempt to change or dissimulate those relations in some form. In his thought-provoking interpretation of Nakai's essay, Takeuchi Shigeaki gives the example of the environmental movements that arose out of the famous Minamata mercury poisoning case in the 1960s and 1970s.<sup>206</sup> From the early 1930s, the Chisso Corporation produced acetaldehyde for use in plastics production, which caused mercury waste to be spilled into the bay from which Minamata residents fished and relied on for food. With the appearance of many cases of uncontrollable shaking, brain atrophy, and mad behavior in the 1950s, medical investigators established that mercury from Chisso in the fish was the cause. However, it was not until very recently, after a long, difficult struggle by the victims against an obstructive Chisso, resistant and uncooperative local and national authorities, an often uninterested and unsympathetic public, and a dragging legal process that the courts finally ordered the national and local government to pay compensation. The case still continues, however, with many still not being recognized as victims.<sup>207</sup>

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<sup>206</sup> Takeuchi, 201.

<sup>207</sup> For a more detailed study of Minamata, see Timothy George, *Minamata: Pollution and Struggle for Democracy in Postwar Japan* (Cambridge: Harvard University Asia Center, 2001).

Minamata is a good example of how a small group of victims and affected fishermen took on huge institutions and corporate interests intent on silencing them. The images of their trembling bodies themselves served as powerful “questions” not only towards Chisso, but also towards industrial civilization and the Japanese state itself.<sup>208</sup> Their small movement inspired many other groups criticizing Japan’s rapid industrialization and its polluting effects, which eventually forced the Japanese state and companies to adopt stricter environmental measures. More importantly, it generated a widespread debate on Japan’s high-speed economic growth. People began to question whether economic growth at the expense of quality of life was really worth it, creating further agitation for better working conditions, more leisure time, greener cities, and cheaper consumer goods, for example. In short, despite the intense efforts of the state, media, and capital to suppress and co-opt the Minamata victims, they could not suppress this fundamental indictment of industrial capitalism and statism they posed, which demanded a change in the relations with capital and the state.

***Conclusion: From ‘The Logic of Committee’ to the Politics of ‘Saturday’***

Thus the engine of the committee’s political practice was the unexpected questions generated amidst the social contradictions of everyday life. Although the questioning of fascism and capitalism continued to be unheard and even violently repressed by the state and capital during the 1930s and 1940s, the mere presence of critical questions or traces of past questions among the people itself was important for Nakai. If they did not

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<sup>208</sup> Takeuchi, 201.

necessarily lead to immediate change in the present, they could serve as “potential energy” for social change in the future.<sup>209</sup> One might argue that the attempt to merely stimulate critical energy among the people without any firm objective or clear trajectory from the very start (i.e. the overthrow of capitalism and creation of socialism) is a passive, dissipating notion of praxis. Nakai, however, was always very suspicious of purist notions of praxis such as the orthodox Marxist privileging of the proletariat since they easily became dogmatic and alienating. Rather, Nakai emphasized a “leaping into” the messy sphere of political debate and struggle without any guaranteed revolutionary outcome. There were no neat formulas for political change and there was definitely no time for resignation or pessimism over lack of success. If Japan’s fascist, technocratic society were to be transformed, a politics that mobilized the critical energies of the widest number of people would have to be established. If all areas of life were being threatened by commodification, specialization, and rationalization, multiple issues would have to be taken up for political struggle, and different techniques would have to be used to mobilize critical interest. This was the goal of “The Logic of Committee.”

The specific threat posed by *Doyôbi*, however, was slightly different. It not only sought to proliferate critical nodes of democratic transformation but also sought to give them some direction within a broad “egalitarian imaginary” or the ongoing democratic revolution whereby more and more people were challenging relations of subordination throughout the world (e.g. the Popular

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<sup>209</sup> We can see Nakai’s active role in the post-war Hiroshima Culture Movement for peace and democracy as a continuation of his cultural politics of the pre-war period. See Leslie Pincus, “A Salon for the Soul: Nakai Masakazu and the Hiroshima Culture Movement,” *positions*, vol. 10:1, (Durham: Duke University Press, 2002), 173-194.

Fronts in Europe).<sup>210</sup> *Doyôbi* was not a mere celebration of creativity, multiplicity, and critique (as Nakai's thought often seems to suggest) but rather, it sought to mobilize the various nodes of critique within a wider democratic imaginary of the expansion of liberty, democracy, equality, and justice to more and more people. The tabloid did not do so abstractly by proclaiming empty slogans of freedom and equality as the political parties or the state did; nor did they do so by insisting on a privileged revolutionary subject or some teleological course of history as the communist parties did. Rather, it sought to encourage these values *within* the specificity of people's daily struggles and pleasures, which it recognized as increasingly incorporated into immense capitalist structures and technocratic systems of control. As we shall see, the state recognized the threat, which led to its shut down in October 1937.<sup>211</sup>

## II. THE POLITICAL PRACTICE OF THE MASS TABLOID, 'SATURDAY'

### *Nakai's Lead Editorials*

In the lead editorial of the first issue of *Doyôbi* entitled, "Flowers Even Bloom on Top of the Raised Ground of the Railway Rails," Nakai writes:

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<sup>210</sup> Laclau and Mouffe use the terms "egalitarian imaginary" and democratic revolution to describe the discursive conditions behind the proliferation of struggles in the nineteenth and twentieth centuries for equality and freedom involving a wider range of subject positions—the origins of these date back to the French Revolution. The task of radical democracy is to expand and deepen liberal-democratic ideology to a whole range of struggles in civil society and the state. See Laclau and Mouffe, 149-153.

<sup>211</sup> In a detailed June 1940 report by Shimokawa Gen of the Justice Ministry's Investigative Division on the various Kyoto cultural movements, "cultural" politics in Kyoto were cited along with the activities of the Social Masses Party as attempting to create the beginnings of a "popular front" movement in Japan. Thus Nakai's activities definitely received some attention by the state. See Shimokawa, 1. More on this report later.

Long, long ago, people lived like adventurers filled with a sense of their own strength beneath the towering sun and billowing waves. Today, people's lives have become one of quietly living from morning to evening in a cold, concrete underground room at one's designated post while listening to the sounds of a monotonous engine.<sup>212</sup>

People's lives are "incorporated into enormous organizational mechanisms," which destroy their hopes, dull their minds, and make them forget their dreams.<sup>213</sup> Continuing the line of thought from his earlier philosophical essays, he immediately describes the world in terms of specialized technocratic structures of production. Yet despite the apparently romantic language of the passage, Nakai never yearns for the return of some idyllic, pre-modern past. Invoking the image of flowers growing on top of cold steel rails, he asks readers to never "let go of the fact that we are living here and now" and to hold on to any criticism of that "here and now."<sup>214</sup> Change does not come through the "power of thousands of pounds of steel," according to Nakai, but begins in the form of asking small questions of one's everyday surroundings and activities.<sup>215</sup> These questions are the "flowers" that bloom on the "cold steel rails" of the established technocratic structures that shape daily life.

By making the readers the writers, *Doyôbi* was to serve as a space for popular reflection, questioning, debate, and planning for a different future.

Nakai writes at the end of his opening editorial:

'*Doyôbi*' [Saturday] is the afternoon where we remember what we are losing within ourselves; the evening where we sketch out serious dreams in our heads, discuss actual knowledge with each other, and

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<sup>212</sup> Nakai, "Doyôbi kantôgen," 24. Brackets are mine.

<sup>213</sup> Ibid., 24.

<sup>214</sup> Ibid., 25.

<sup>215</sup> Ibid., 25.

plan our schedule for tomorrow. It is the evening where tears flow without hesitation, and smiles bloom with abandon.<sup>216</sup>

As he outlines in “The Logic of Committee,” *Doyôbi* was to be an arena for proliferating debate on a whole range of concrete everyday issues facing people who were living within the grid of technocratic structures of 1930s Japan. The “tears” and the “laughter” describe the difficult process of changing one’s views and attitudes in order to arrive at something new—what he refers to as a “negation” that “deepens subjectivity” in “The Logic of Committee.” The slogan printed at the top of each issue read, “Courage Towards Life. Clarity of Spirit. Friendship Without Separation. *Doyôbi*: An Afternoon of Rest and Reflection.”<sup>217</sup> *Doyôbi* would serve as a reflective space for people to temporarily step back from a life that was increasingly mobilized by specialized technologies of socio-cultural production within the factory, the family, civil society, and the market. Nakai envisioned *Doyôbi* as a kind of creative interruption of life.

Expanding on his earlier notion of the “indifferent point” whereby people have their convictions thrown into question, Nakai affirms a “feeling of emptiness” as the source of critical power and creativity in his editorial of August 15, 1936 entitled, “We Should Not Merely Remain in a Feeling of Emptiness.” This “empty, lonely feeling” often appears amidst the “deafening roar” of modern life, according to Nakai, and it generates existential questions such as, “Why is there so much suffering,” “Why is everyone so busy,” “Why are people laughing,” or “Why are people crying?”<sup>218</sup> Yet it is this very moment of emptiness that often serves as the foundation for new “trajectories” or

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<sup>216</sup> Ibid., 25. Brackets are mine.

<sup>217</sup> *Doyôbisha*, 11.

<sup>218</sup> Nakai, “*Doyôbi kantôgen*,” 29.

unforeseen opportunities.<sup>219</sup> “This very feeling is the basis of an affect that is the springboard for all action; it is a source of knowledge; an originary, inexhaustible storehouse for the critical spirit,” Nakai writes.<sup>220</sup> Emptiness or “indifferentness” can be the origin of unexpected questions, insights, or inspirations—“the raw ore that immediately transforms into people’s wishes for tomorrow, the first breeze before the storm of real knowledge.”<sup>221</sup> Thus “negation” is often necessarily a difficult and painful experience; however, it often leads to unexpected “flowers” of critique and insight. He therefore urges people to “grasp” this emptiness, instead of just lingering in it. “*Doyôbi* is a storehouse full of such treasures,” Nakai writes, referring to the numerous contributions from people discussing their everyday struggles and pleasures.<sup>222</sup> Each contribution represented a “small breeze” or “raw ore” of critique and insight that would perhaps generate responses from others, or some unexpected critical momentum for social change.

As mentioned above, Nakai’s notion of negation is not a Hegelian one whereby negation is merely one moment in the dialectical march of historical progress. In his lead editorial of December 5, 1936 entitled, “Truth is Seeking Support More than Vision,” Nakai writes, “Does history traverse a path schematically from one point to another like a line drawn on a map? Is it a trajectory that we should be able to view horizontally? No, it is not.”<sup>223</sup> He instead sees history as potentially going in different directions through people’s minute, everyday actions:

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<sup>219</sup> Ibid., 30.

<sup>220</sup> Ibid., 30.

<sup>221</sup> Ibid., 30.

<sup>222</sup> Ibid., 30.

<sup>223</sup> Ibid., 40.

Any small, correct criticism or any little action amidst our minute lives can become the basis for enormous actions that can shift history from one pole to another.

Rather than being seen horizontally, history should be entered into; it is seeking support. Today truth is sincerely asking for each of your little hands, both men and women, to not let go of your criticisms and actions towards your lives at hand.<sup>224</sup>

History has no inevitable destiny or mission to which people are subject. In a context where people were increasingly incorporated into larger state discourses of war mobilization and “building a New Order for East Asia,” Nakai instead implores people to remain at the level of everyday concerns and problems. History and truth arise out of people’s mundane lives and concerns—they are not eternal, transcendent forces. Instead of resigning oneself to the course of national events or eternal truths, people should actively look at and question what was happening in the “here and now” of their everyday lives—this was the only truth. “Just pick up any small clump of dirt—let’s take it up in our hands and crush it,” Nakai writes in his lead editorial of September 5, 1936.<sup>225</sup> People should simply grapple with an issue that they immediately face, rather than concern themselves with “historical forces,” “national missions,” or “eternal truths.” In the face of increasing mobilization of all aspects of life, Nakai urged for a kind of politics of the everyday that would create new truths and multiple points of critique, rather than direct mass resistance, which was becoming less and less possible at the time.

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<sup>224</sup> Ibid., 41.

<sup>225</sup> Ibid., 31.

### ***The Multiplicity of Doyôbi***

*Doyôbi*'s anonymous contributions reflected the problems and opinions of a range of people: working women, housewives, small businessmen, artists, intellectuals, farmers, and laborers. In the afterward to the September 19, 1936 issue, the editors expressed joy over the number of contributions. "We think that you should all consider *Doyôbi* to be your wall to scrawl graffiti on," the editors write.<sup>226</sup> They then apologize to the contributors they could not include. "We would like you to consider your submissions as disappeared graffiti," they add.<sup>227</sup> Saitô Raitarô, one of the founders of *Doyôbi* and owner of its publishing license, insisted that contributors write for an audience with a sixth-grade level education in order to ensure as wide a readership as possible. The advertisements from coffee shops, tea houses, record stores, department stores, cosmetics shops, restaurants, liquor shops, movie theaters, and clothing stores suggest a diverse readership ranging from working class to upper middle class—in short, the growing consumer classes of urban Japan.

The editors also made a conscious decision of keeping their price at three *sen*, despite pressures to raise the price due to paper shortages at the time. One letter from a rural reader expressed gratitude at the cheap price in comparison to the big "cultural magazines," which were charging one yen or eighty *sen* per issue.<sup>228</sup> The editors also made a conscious decision of not solely relying on the "capitalist commercial" networks of bookstore cooperatives, wholesalers, and small shops.<sup>229</sup> They encouraged people to

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<sup>226</sup> Sept. 19, 1936 issue. *Doyôbisha*, 46.

<sup>227</sup> *Ibid.*, 46.

<sup>228</sup> April 5, 1937 issue. *Ibid.*, 111.

<sup>229</sup> *Ibid.*, 111.

mail their used copies to their friends and relatives in other cities and especially to the countryside.<sup>230</sup> They also distributed free copies to coffee shops in the Kyoto-Osaka area.<sup>231</sup> Thus they tried to gain new audiences and create unexpected encounters with unknown readers through the use of other methods of circulation. In doing so perhaps new questions, debates, or “flowers of criticism” would arise among a public saturated with big capitalist media.

### ***International News***

Each issue was divided into six one-page sections: Opening Editorial (by Nakai or Nose), Culture, Film, Women, Society, and Entertainment/Club. The Culture section was devoted to progressive news from abroad, domestic news items, and commentaries. The anti-fascist Popular Front coalitions in France and Spain received much attention due to the lack of coverage or distortions in the mainstream Japanese press, according to one *Doyôbi* writer.<sup>232</sup> The tabloid organizers and their network of friends probably wrote these items. Despite some complaints at first about too many overseas news reports and not enough domestic ones, by January 1937, several readers wrote about how interesting these items were, which made the editors very happy.<sup>233</sup> The very first issue had an article on Irene Joliot-Curie, Nobel Prize winner and Undersecretary of State for Scientific Research under Léon Blum’s Popular Front government. The article mentions how the government included three women ministers, and how Curie was a strong advocate of women’s

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<sup>230</sup> Many obliged, according to some letters. Ibid., p. 111.

<sup>231</sup> Raitarô Saitô, “‘Doyôbi’ ni tsuite” (“Regarding ‘Saturday’”) in *Doyôbisha*, 8-10.

<sup>232</sup> August 1, 1936 issue. Ibid., 24.

<sup>233</sup> January 5, 1937 issue. Ibid., 82.

rights and suffrage.<sup>234</sup> A short biography of Spanish Popular Front president, Manuel Azaña, described his strong secularism and his background as a writer and lawyer.<sup>235</sup> Another issue had an article on the General Strike of 1936 in light of Leon Blum's electoral victory. It described the factory occupations, city halls and workers organizing cooking and food delivery, workers maintaining and cleaning machinery instead of destroying it, everyday concerts and speeches, and the strikers' maintenance of good public relations. The strike resulted in the forty-hour work week, state recognition of the right to collective bargaining, two weeks paid leave, eight to fifteen percent wage increases, and a more widespread popularity for the Popular Front government, it reported.<sup>236</sup> Inspired by the successes of leftist coalitions in France and Spain, the *Doyôbi* editors tried to introduce these events in the hope of encouraging similar expansions of the global democratic revolution among their readership, instead of a set party line that narrowed their practical-political force.

The cultural aspects of the Popular Front movements were also not ignored. One article covered a meeting in Paris of some of France's leading artists, architects, and film directors on the topic of realism. Artists such as Jean Lurcat and Franz Masereel, architects such as Le Corbusier, and directors such as Jacques Feyder and Jean Renoir are only some of the people who attended. The article discusses this gathering as an attempt by artists to form autonomous groups such as the "Youth Conference of 37," a gathering of architects dedicated to exploring realist and functionalist design techniques, and "Ciné Liberté," a group of filmmakers, directors, and critics

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<sup>234</sup> July 4, 1936 issue. *Ibid.*, 12.

<sup>235</sup> *Ibid.*, 12.

<sup>236</sup> August 15, 1936 issue. *Ibid.*, 30.

who studied experimental and censored films in order to develop innovative, non-commercialized techniques.<sup>237</sup> Another article introduces the “Photo Correspondent” campaign in the Soviet Union whereby soldiers, workers, students, and farmers from all over used their cheap “Fotocall” cameras to take pictures of social, political, and cultural events in their respective regions and then submitted them to newspapers and magazines.<sup>238</sup> The *Doyôbi* organizers had a special interest in overseas independent artist movements and campaigns to spread culture to people since these activities fit with their overall goal of encouraging people to autonomously develop their creativity and critical powers in the context of high capitalism and fascism.

The organizers also made an effort to include items on China and Korea. One writer urged readers to learn more about China in the same way that thousands of Chinese students were coming to Japan to learn about the country. Instead of ignorantly disparaging China, readers should learn about “why people like Lu Xun...were part of the anti-Japanese movement,” for example, and about Chinese thought, economics, politics, and way of life in order to better connect with their “close neighbor.”<sup>239</sup> One commentator pointed out that anti-Japanese sentiment “ironically” helped achieve Chinese national unity and that instead of focusing on “warlords and politicians,” people should study the customs of the Chinese people, their particular conditions of capitalism, and so on in the interest of achieving an alliance of the “Japanese and Chinese masses.”<sup>240</sup> News items on drought and famine in the Chinese countryside, rural dislocation, a special “grave cleaning” holiday for five great

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<sup>237</sup> Sept. 19, 1936 issue. Ibid., 42.

<sup>238</sup> August 15, 1936 issue. Ibid., 30.

<sup>239</sup> December 19, 1936 issue. Ibid., 72.

<sup>240</sup> January 20, 1937 issue. Ibid., 87.

figures in Chinese history, and Chiang Kai Shek's New Life Movement appeared in the newspaper, trying to give a sense of the lives of the average Chinese peasant, Chinese nationalism and efforts at modernization.<sup>241</sup> A prominent obituary of Lu Xun was also featured in one issue, describing him as "China's Gorky" and briefly introducing his stories such as "The True Life of Ah Q," which the writer describes as capturing the mood of the Chinese people on the eve of the Chinese revolution.<sup>242</sup> Another article described the conditions of the "wandering people"—Koreans in Japan—who took up urban occupations such as taxi driver, sewage collectors, and transporters of concrete. The author criticizes the criminalization of Koreans and the state's propensity toward "cracking down on" Koreans instead of helping them. In an indirect criticism of Japanese imperialism, he also mentions how Korea has produced many famous scientists, writers, and politicians; however, today, the social conditions for producing them no longer exist.<sup>243</sup> Thus the *Doyôbi* organizers made some efforts to include items that indirectly criticized Japanese imperialism and racism. Europe was not the only source of inspiring social struggle and critique.

### ***Domestic Politics and Everyday Life***

Domestic issues, of course, also took up much space in the Society section and probably received the most contributions. The leftist Social

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<sup>241</sup> See the October 20, 1936 issue for an article on the various "crises in China." Ibid., 48. The article did not mention the role of Japanese imperialism in contributing to these crises. A phrase reported to have been written by a young Chinese boy was censored from the article, suggesting that open criticism of Japanese imperialism was generally avoided. See March 5, 1937 issue for article on New Life movement. Ibid., 96. See April 20, 1937 issue for article on famine in Sichuan and Gansu province. Ibid., 114.

<sup>242</sup> November 20, 1936 issue. Ibid., 63.

<sup>243</sup> December 5, 1936 issue. Ibid., 70.

Masses Party was the target of several articles for their failure to criticize the military's restriction of the franchise and prevention of party leaders from becoming ministers, their abandonment of the "masses" in favor of the "nation" (*kokumin*), and their attempt to prevent any type of left popular front.<sup>244</sup>

Technocratic tendencies such as the nationalization of electricity, the re-introduction of a neighborhood patrol system, and the rise of the "reform forces" also received some attention. One writer criticized the state's nationalization of electricity, which was implemented under the guise of being "for the good of the nation," as merely an attempt to reduce wages and fire workers—nationalization was totally consistent with capitalist interests.<sup>245</sup> One 1937 article urged people to support the proletarian parties in the face of the growing power of the "reform forces," who were pushing for the establishment of total planning ministries, the prevention of political appointments in the cabinet, and the dissolution of parliament.<sup>246</sup>

Many articles expressed firm support for parliamentary politics, fundamental democratic and human rights, and the legal-judicial system. A regular "Our Everyday Legal Rights" column appeared where readers wrote about their legal problems, and a lawyer gave advice. One woman asked if she had any legal recourse against an old man who promised her a tobacco shop in exchange for becoming his concubine but never fulfilled his promise. Her only recourse, the lawyer wrote, was to sue for fraud since the state did

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<sup>244</sup> See August 1, 1936 and November 20, 1936 issues. *Ibid.*, 24, 63.

<sup>245</sup> September 19, 1936 issue. *Ibid.*, 45.

<sup>246</sup> April 20, 1937 issue. *Ibid.*, 117. Konoe Fumimaru, one of the main leaders of the reform forces, became prime minister in June 1937. He is famous for announcing the creation of the "New East Asian Order" and for passing the State Total Mobilization Law. It was under his cabinet that reform bureaucrats like Mōri Hideoto gained power within the new planning agencies.

not recognize concubines.<sup>247</sup> Another letter from a woman asked about legal ways of addressing her husband's chronic debt problems. The lawyer urged her to rationally make a chart of her debts, try to pay off the high-interest ones first, make long-term payment plans, and have the courts approve the plans to prevent any arbitrary change.<sup>248</sup> Articles on the threat to local self-government from state centralization, the persistence of police torture and a weak sense of human rights among the people, the growing fear of exercising basic rights of free speech and assembly, and the rise of the left parties in local Tokyo elections also appeared.<sup>249</sup> Thus most of the articles on domestic politics stayed within the framework of parliamentary politics and the assertion of basic legal and democratic rights. This is understandable given that state repression had shut down most alternative forms of dissent and was attacking the parliamentary system itself. Part of the politics of the everyday for the organizers of *Doyôbi* lay simply in asserting these established democratic rights.

Yet many of the articles in *Doyôbi* were also about the everyday lives and problems of its readership. Workers and small shopkeepers discussed their lives in the regular series, "Essays on the Workplace." One watch repairman who rented some space in the corner of a shop wrote about barely making enough to eat, recently being able to send some money to his family in the countryside, having to rely on the larger watch shops for sub-contracting work, and how *Doyôbi* was one of the few joys in his life.<sup>250</sup> Another report from a factory worker discusses the frequency of rural youth quitting their jobs

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<sup>247</sup> December 19, 1936 issue. Ibid., 75.

<sup>248</sup> January 20, 1937 issue. Ibid., 87.

<sup>249</sup> See November 5, 1936, March 20, 1937, Jan 20, 1937, and April 20, 1937 issues respectively. Ibid., 57, 87, 105, 117.

<sup>250</sup> November 5, 1936 issue. Ibid., 57.

and factory attempts to replace them with cheaper female labor in order to drive down wages and encourage competition among workers.<sup>251</sup> Other reports included those from a film studio worker, a used bookseller, and a gas station attendant.<sup>252</sup> A series of articles on rural Shinshû and Tôhoku also appeared. The organization of ineffective debt reorganization cooperatives, the prevalence of tuberculosis from returning women factory workers, the persistent poverty in northern Japan despite good harvests, and the exploitative actions of a rural Shinshû silk magnate were some of the issues discussed in the series.<sup>253</sup> One article called for the formation of a “farmer book-keeping movement” whereby debt cooperatives would train farmers in basic accounting practices, which would hopefully help them get out of the paradoxical situation of being in debt during a good harvest.<sup>254</sup> Thus *Doyôbi* made an effort to include the voices of a variety of people, who discussed their lives and even proposed solutions to specific problems. Moreover, they made an extra effort to include the voices of women by devoting a section to their concerns.

### ***The Women’s Section***

Reflecting the increasing number of women in the workforce and civil society, many articles in the women’s section discussed their experiences both in the workplace and at home. One article describes a young department store lady’s experience in her choral group where a rich woman refused to sing with her on the grounds that she was a “working woman.” The department

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<sup>251</sup> Dec 5, 1936 issue. Ibid., 69.

<sup>252</sup> August 1, 1936, September 19, 1936, and November 20, 1936 issues. Ibid., 27, 45, 63.

<sup>253</sup> November 5, 1936 and December 5, 1936 issues. Ibid., 57, 69, 75.

<sup>254</sup> December 19, 1936 issue. Ibid., 75.

store lady asserts pride over the fact that she works for her food whereas the rich woman lives in her own little “fictional” world.<sup>255</sup> Another article describes how women workers at a clothing inspection center were made to prepare lunch boxes for everyone as a part of the company’s attempt to cut costs. The author decries “male feudalism” and the work environment that treats women as existing for the service of men.<sup>256</sup> One female doctor recounts her visit to the Tenri countryside where farmers do not go to the doctor because of poverty and rely on “superstitions” and religions instead. As a result, many die from easily treatable diseases.<sup>257</sup> A teacher writes about a meeting in preparation for the school’s sports day where three to four men talk non-stop for several hours into the evening. Meanwhile, she is thinking about her one month old baby at home. For her this is an example of men’s lack of consideration for the situation of women as both mothers and workers.<sup>258</sup> Thus in *Doyôbi*, we see snapshots of the different subject positions among working women in urban Japan.

There were also many opinion pieces on the position of women in the workplace and at home. One piece discusses how many women endure low-paying jobs with bad working conditions in the city and hope that marriage will save them from their work. Yet what often happens instead is that men do not want “tired wives,” and even if they do get married, a hard life of raising two to three children on a low income awaits them. The author ends by asserting the right of women to have a good working life and an equal, cooperative marriage, instead of having to choose one or the other.<sup>259</sup> Another talks about

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<sup>255</sup> July 4, 1936 issue. Ibid., 14.

<sup>256</sup> December 19, 1936 issue. Ibid., 74.

<sup>257</sup> December 5, 1936 issue. Ibid., 68.

<sup>258</sup> October 20, 1936 issue. Ibid., 50.

<sup>259</sup> August 1, 1936 issue. Ibid., 26.

a male department store worker bragging to his female colleagues about his rural wife, who was “sophisticated, yet not argumentative” like them. He goes on to say that his female colleagues were “not Japanese women.” The author pokes fun at him, writing that instead of going back to his sophisticated wife, he goes to billiard halls and bars enjoying “coquettish” women while his wife manages his low salary. “Why don’t you throw away your old-fashioned ways and become more like a man,” she writes.<sup>260</sup> In response to these articles on the “feudal” attitudes of men, one person asks women to see the root of sexism in the exploitative capitalist system rather than in simply male “attitudes” or behavior.<sup>261</sup>

Another article celebrates the increasing number of jobs available for women such as hairdressers, dressmakers, sales women, review dancers, typists, bus conductors, waitresses, and teachers. The author writes that such jobs give women a certain degree of independence and in some cases, practical skills in the event of marriage.<sup>262</sup> In the same issue another woman praises the passing of the Mother-Child Protection Law, which provided welfare for poor mothers without husbands, as well as for illegitimate children. She writes, however, that the law should be expanded to include women with criminal records, itinerant women, and women with mental disorders.<sup>263</sup> Articles celebrating research into artificial insemination as a step toward women’s empowerment, decrying the registration of pregnant women in Chiba Prefecture as a means to prevent abortion, and supporting the organization of red light district workers in Osaka also appeared.<sup>264</sup> Thus, *Doyôbi* was not

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<sup>260</sup> September 19, 1936 issue. Ibid., 44.

<sup>261</sup> January 5, 1937 issue. Ibid., 80.

<sup>262</sup> January 20, 1937 issue. Ibid., 86

<sup>263</sup> Ibid., 86.

<sup>264</sup> December 19, 1936 and March 5, 1937 issues. Ibid., 74, 98.

merely a space for women to claim victimhood, but was in fact a dynamic forum for asserting their many different political viewpoints and agendas.

The concerns of housewives also took up a lot of space in the Women's section. Rising food prices were a constant theme for women. One article links the rising prices of some key food items such as beef, rice, tofu, flour, *miso*, soy sauce, milk, sugar, and cold drinks to international events, state price controls, and monopolies.<sup>265</sup> An article on the national meeting of women's consumer cooperatives highlighted the dispute between the middle-class women leadership, who sought assistance from the state, and the majority of women who wanted to be more autonomous from the state.<sup>266</sup> One piece urged women to "turn your faces away from your account books" and toward the politics of the state. Instead of focusing on the minutia of prices, bargains, and budgeting, women should look at the larger socio-economic problems stemming from state policies that put more burdens on the people.<sup>267</sup> The entrance examination system was also the topic of much debate among housewives and mothers. One woman criticizes the petty competition among the women in a local "Mothers Association" where the women of those who were admitted to middle school socially excluded those who were not. She reminds women that the Mothers Association's purpose is for the good of not only all mothers but all of society as well—not just themselves and their children.<sup>268</sup> Another woman asked whether there was a point to the exam system given that corruption was more determinative than actual student ability.<sup>269</sup> In a special edition devoted to the junior high school exam system,

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<sup>265</sup> August 1, 1936 issue. *Ibid.*, 26.

<sup>266</sup> November 20, 1936 issue. *Ibid.*, 62.

<sup>267</sup> January 5, 1937. *Ibid.*, 80.

<sup>268</sup> September 5, 1936, *Ibid.*, 38.

<sup>269</sup> October 20, 1936 issue. *Ibid.*, 50.

articles criticized the different systems in the Kansai area. The system at a famous Osaka school was particularly worrisome since it only tested national history and did not really test children's intellectual ability, according to one woman.<sup>270</sup> In Kyoto schools adopted a three-part system of elementary school grade reports, physical exam, and character exam. Leaving intellectual evaluation to the elementary schools made them vulnerable to parental pressure and corruption, physical exams problematically glorified physicality over intelligence, and character exams were often vague and of questionable value, the article says.<sup>271</sup> The stress on memorization and the advantages some children gained from going to private cram schools were also criticized.<sup>272</sup> Thus a number of contentious everyday issues facing housewives such as rising food prices and children's education mobilized debate among women in the pages of *Doyôbi*.

Fashion and style also received attention in a regular "Vogue" column. One column discusses how increasingly popular polka dot patterned dresses look good on everyone without being too gaudy. Obese women could wear dark dresses with fine polka dots to "hide their body lines," while gray, round polka dots on a dark background "softens the bony frames" of skinny women. The article continues to describe other color-combinations as well as popular polka dot dresses in France and the US.<sup>273</sup> Another column was devoted to the Spanish bolero jacket, which would look good on a "short, black-haired Japanese" woman, and the Chinese *Qipao* dresses, which "unfortunately" do not fit well on most Japanese women, according to the writer.<sup>274</sup> A series of

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<sup>270</sup> April 20, 1937. Ibid., 116.

<sup>271</sup> Ibid., 116.

<sup>272</sup> Ibid., 116.

<sup>273</sup> August 1, 1936 issue. Ibid., 26.

<sup>274</sup> July 4, 1936 issue. Ibid., 14.

advice columns on “working women’s clothing” also appeared. One piece on the navy blue and white bus girl uniforms suggests that the number of pleats be reduced in order to make movement in crowded buses easier, and using hair bands instead of hats in order to display their neat hair styles.<sup>275</sup> Waitresses should wear dresses that were not too long with open sleeves to allow free and easy movement. Their uniforms should match the table colors and yet not be louder than the customer’s clothing (black or gray were safest).<sup>276</sup> The author adds that while the white apron should be the identifying marker of the waitress, recently the apron has gained public significance by becoming the public uniform of the National Defense Women’s Association, who wore them over their kimono. Thus *Doyôbi*’s politics of the everyday even extended to the politics of clothing and style, both in the workplace and in public. Fashion was not merely seen as ephemeral or diversionary.

### ***The Film Section***

One page of *Doyôbi* was devoted exclusively to film. In response to criticisms by readers that there was too much on film, the editors wrote that the section was “inevitable” considering “what type of role film plays in modernity.”<sup>277</sup> Western films dominated the section, although some space was dedicated to Japanese ones. William Dieterle’s *The Life of Louis Pasteur* (1935, starring Paul Muni), a film about the pioneer of sterilization and vaccination, was praised for its passionate depiction of science used for humanity instead of a science cloistered into narrow specializations and

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<sup>275</sup> November 20, 1936 issue. Ibid., 62.

<sup>276</sup> December 5, 1936 issue. Ibid., 68.

<sup>277</sup> September 5, 1936 issue. Ibid., 40.

institutions.<sup>278</sup> Michael Curtiz's *Black Fury* (1935, again starring Paul Muni), a film about an immigrant coal miner amidst a bitter coal mining strike, was praised for its portrayal of U.S. labor struggles (e.g. its depiction of the divisive tactics of management); however, it was too pro-capital and pro-state, had too many individualistic and melodramatic moments, and was ambiguous about the psychological and economic causes of the strike, according to the reviewer.<sup>279</sup> A special edition of *Doyôbi* devoted six whole pages to Frank Capra's *Lost Horizon* (1937), a film about a tired diplomat and his fellow travelers inadvertently discovering Shangri La—a place of eternal youth, natural beauty, and peace—after a plane crash in Tibet. Articles (including one by Yodogawa Nagaharu, Japan's most famous post-war film critic) celebrated its technical effects and debated the pros and cons of utopian thinking.<sup>280</sup> Arnold Fanck and Itami Mansaku's *The New Earth* (1937), a joint German-Japanese production, was criticized for urging poor Japanese farmers to emigrate to Manchuria instead of focusing on how their situation could be improved at home.<sup>281</sup> Other films reviewed included Frank Capra's *Mr. Deeds Goes to Town* (1936), King Vidor's *So Red the Rose* (1935), Julien Duvivier's *Golgotha* (1935), and Jacques Deval's *Club de femmes* (1936).<sup>282</sup> Thus, *Doyôbi* covered the latest films from the U.S. and Europe, suggesting a readership that was somewhat engaged with cinematic culture. Kyoto's Shôchikuza Cinema even placed advertisements in each edition with catchy plot summaries in order to attract moviegoers.

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<sup>278</sup> December 5, 1936 issue. Ibid., 67.

<sup>279</sup> August 1, 1936 issue. Ibid., 25.

<sup>280</sup> June 5, 1937 issue. Ibid., 128-133.

<sup>281</sup> February 20, 1937 issue. Ibid., 90.

<sup>282</sup> July 17, 1936, July 4, 1936, December 19, 1936, and January 5, 1937 issues. Ibid., 13, 21, 73, 79.

Japanese films were not left out. Shimizu Hiroshi's lost film, *Jiyū no tenchi* (Universe of Freedom, 1936), was praised for at least showing "staggering Korean laborers;" however, his portrayal was very cold and mechanistic, according to the reviewer.<sup>283</sup> Kimura Sotoji's *Ani imōto* (Elder Brother, Younger Sister, 1936), a film about a young woman who returns to her rural home and reveals that she is pregnant by her former employer's son, received good reviews for its capture of the "psychological aspects of rural-urban contradictions."<sup>284</sup> Kumagai Hisatora's *Sōbō* (The People, 1937), a film about poor Japanese farmers living together at a collective emigration center in Kobe one week before they depart for Brazil, was praised by a woman reviewer for capturing the pain of leaving one's home town in contrast to Fanck's idealization of emigration to Manchuria in his film, *The New Earth*. In one issue, Chinese films such as one hit film entitled, *Mayoeru hitsuji* (Wandering Sheep) were reviewed. Chinese films were primarily tragedies rather than comedies, and inevitably asserted nationalist sentiments, according to the reviewer.<sup>285</sup> Japanese *bunka eiga* ("culture films" or documentaries) that supposedly depicted the "reality" of China were criticized for being war propaganda in another article. The reviewer goes on to urge everyone to "take back and re-analyze the concept of culture" such that it is for life and the people instead of the state. He or she praises Soviet films such as Nikolai Ekk's *The Road to Life* (1931), about hobos at an experimental reformation camp, and Mark Donskoi's *The Song of Happiness* (1934), about a flute player in a collective, are propped up as examples of people's

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<sup>283</sup> July 17, 1936 issue. Ibid., 21.

<sup>284</sup> August 1, 1936 issue. Ibid., 25.

<sup>285</sup> January 20, 1937 issue. Ibid., 85.

culture.<sup>286</sup> Thus it seems that the *Doyôbi* editors were quite aware of cinema's potential to stimulate critique, and included articles on Japanese (and Chinese) films accordingly.

### ***The Critique of Nationalist and Commercial Culture***

Against the prevailing tide of nationalism and rampant commercialism within the arts and culture, the articles in *Doyôbi* always insisted on developing localized, independent cultural activity. One article on films introducing Japan to the world such as the Ministry of Foreign Affairs's *Gendai no nihon* (Modern Japan) and Max Ophüls's *Yoshiwara* (1937) criticizes them for portraying Japan as a place "where *sakura* always bloom" and as a country full of exotic pleasure quarters such as Yoshiwara. In fact, "the women entertainers of southern Osaka, which corresponds to the Yoshiwara area, were currently striking for the establishment of an independent union," the writer adds in an incisive criticism of Orientalism and nationalism in film.<sup>287</sup> In the literary review column, the nationalist tendencies of the leading literary journal, *Bungakukai* (The Literary World) and some of its main contributors such as Kobayashi Hideo, Yokomitsu Riichi, and Hayashi Tatsuo were criticized. The reviewer writes, "Culture or literature is neither the senseless abstract, fanatical stuff thought up by Yokomitsu and Kobayashi nor is it something monopolized by one nation (*minzoku*). It is closely intertwined with politics and economics."<sup>288</sup> Another article on the winning songs chosen by an Asahi Newspaper contest celebrating the first successful trans-continental flight from Tokyo to London by a Japanese person castigated the songs for their "foolish" lines about "sakura"

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<sup>286</sup> November 5, 1936 issue. *Ibid.*, 55.

<sup>287</sup> March 5, 1937 issue. *Ibid.*, 99.

<sup>288</sup> April 20, 1937 issue. *Ibid.*, 114.

and “Mt. Fuji.”<sup>289</sup> Radio culture was celebrated in a regular radio review column. Listeners should adjust their senses to the “double life of the culture of the ear” whereby in any given hour one will hear Hungarian classical music and classical *bunraku* in close succession, for example, a reviewer writes. Within such “confusion,” we can sometimes discover something larger, the article adds.<sup>290</sup> The next column asserts the potential of radio to go beyond the nationalistic “chauvinism” sweeping the world through mixed, international choral performances, dramas, and music competitions, as opposed to shows such as the NBC tenth anniversary special broadcast, which blandly featured “average” songs from each country.<sup>291</sup> Thus *Doyôbi* always tried to critique nationalism and assert an internationalist line in its cultural politics.

*Doyôbi* also insisted on the promotion of local culture. The society, film, and culture sections had many articles on local theater groups, orchestras, and arts collectives. Reviews of local theater group performances such as the Osaka Cooperative Theater’s performance of Hisaita Eijirô’s *Dansô* (Dislocation) and the New Tsukiji Theater’s performance of Anton Chekhov’s *The Cherry Orchard* were regular features.<sup>292</sup> One article announced the formation of the “Music Culture Club” in Kyoto—a group of music critics, amateur performers, and fans dedicated to taking music away from “outdated specialists, nasty managers, music brokers, evening dresses, flower bouquets, and outrageously expensive ticket prices,” and breaking down the walls between each other. Monthly meetings that included lectures, discussions, and performances of Schubert, Chopin, Beethoven, and Hindemith were being

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<sup>289</sup> March 20, 1937. *Ibid.*, 105.

<sup>290</sup> March 20, 1936. *Ibid.*, 52.

<sup>291</sup> November 20, 1936. *Ibid.*, 64.

<sup>292</sup> May 5, 1937 and April 5, 1937 issues. *Ibid.*, 109, 121.

planned.<sup>293</sup> Another article celebrated the boom in the production of small-scale, amateur films using 8mm 9mm, and 16mm film. The writer called on people to film their living and work spaces, and to organize into an association where they would critically share ideas and techniques. He invited readers interested in starting such a group to write to *Doyôbi*.<sup>294</sup> There was also a report on the first meeting of the “Kyoto Film Club,” a group of independent film directors, critics, and fans who met to watch and study films. The upcoming meeting was to feature the directors Itami Mansaku and Kinugasa Teinosuke as well as *Doyôbi*’s film critics and amateur filmmakers, Nakai, Nose, and Shinmura Takeshi.<sup>295</sup> Thus similar to the cultural politics of Popular Front movements in Europe, *Doyôbi* tried to promote autonomous organizations that would encourage the proliferation and active appreciation and production of culture by the people, instead of a passive, commercialized art dominated by specialists and large media companies.

### ***Reader Criticisms of Doyôbi***

In the spirit of creating a critical forum or “committee” among the readership, *Doyôbi* also received and responded to criticism from the readers. Letters “scolded” the tabloid for being too trivial and lacking any coherent progressive vision.<sup>296</sup> As mentioned above, *Doyôbi* had to defend itself for including a section on film by insisting on its importance in popular culture and modernity.<sup>297</sup> The women’s section was a particularly tense arena of debate. In the Women’s section of the January 5, 1937 issue, a contributor attacked

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<sup>293</sup> April 5, 1937. Ibid., 108.

<sup>294</sup> March 20, 1937 issue. Ibid., 103.

<sup>295</sup> May 5, 1937 issue. Ibid., 121.

<sup>296</sup> September 5, 1936 issue. Ibid., 40.

<sup>297</sup> Ibid., 40.

women for their “narrow” concern with commodity prices and household affairs rather than the so-called real culprit—state policy.<sup>298</sup> Another article castigated women for simply blaming the “feudal” attitudes of men for the continuity of discrimination, rather than the capitalist system itself.<sup>299</sup> Thus there was an ongoing tension between more orthodox Marxists who saw women’s everyday concerns as trivial compared to the larger struggle for socialism and the variety of women who wrote about their workplace and household experiences. This tension was also apparent in the film section where several movie reviews criticized films for a lack of deep analysis of social conditions while some insisted more on the aesthetic techniques and effectiveness of certain films.

In the May 5, 1937 issue, the *Doyôbi* editors expressed concern at the decline in contributions from women, noting that earlier women’s contributions exceeded those from males.<sup>300</sup> This speaks to the “lack of breathing room” that women must be feeling, they add.<sup>301</sup> Towards the end of its publication, some readers also complained that *Doyôbi* was becoming a “playground for intellectuals and university students” and more and more alienated from the realities of working people.<sup>302</sup> The editors mention how they were constantly debating and criticizing each other’s written language in order to simplify it and make it more accessible to people.<sup>303</sup> Another criticism that arose was the “lack of humor” in the tabloid, to which the editors urged readers to contribute funnier pieces since “it would be nice to have a little more laughter in our

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<sup>298</sup> Jan 5, 1937 issue. Ibid., 80.

<sup>299</sup> Ibid.

<sup>300</sup> May 5, 1937. Ibid., 124.

<sup>301</sup> Ibid.

<sup>302</sup> August 20, 1937. Ibid., 166.

<sup>303</sup> Ibid. See also January 5, 1937 issue, Ibid., 82.

everyday lives.”<sup>304</sup> Some complained about the number of foreign news reports, which gradually declined to include more domestic reports and opinion pieces.<sup>305</sup> Thus instead of maintaining the one-way relationship of producer and consumer, the tabloid organizers tried to incorporate a variety of criticisms among their readers into the very structure and content of the tabloid itself. This was in line with Nakai’s “Logic of Committee” and *Doyôbi*’s editorial stance of eventually making the readers the writers of the tabloid. In the October 5, 1937 issue—the very last issue of *Doyôbi* before the authorities shut it down—the editors boasted that seventy percent of the issue consisted of contributions.<sup>306</sup>

### ***The View from the State***

In April 1940, the Justice Ministry investigator, Shimokawa Gen, published a report on the “Cultural Movement” in Kyoto. *Doyôbi*, along with the other journals Nakai was involved in such as *Bi hihyô* and *Sekai bunka* was investigated in great detail.<sup>307</sup> According to Shimokawa, the Kyoto Cultural Movement—his term for the numerous journals and newspapers published in the Kyoto area with cultural themes—along with the campaigns of the Social Masses Party were the two major efforts to establish a progressive, anti-fascist “Popular Front” in Japan.<sup>308</sup> These movements, however, never crystallized

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<sup>304</sup> December 5, 1936. Ibid., 70.

<sup>305</sup> Although on the flip side, some began to appreciate the overseas reports. January 5, 1937 issue. Ibid., 82.

<sup>306</sup> October 5, 1937 issue. Ibid., 184.

<sup>307</sup> Other Kyoto journals such as *Gakusei hyôron* (Student Review), *Eiga kurabu* (Cinema Club), and *Ongaku bunka kurabu* (Music Culture Club) were also investigated.

<sup>308</sup> Shimokawa, 1.

into a wider Popular Front movement that synthesized political, economic, and cultural concerns into a coherent social program, he adds.<sup>309</sup>

The report on *Doyôbi* details its history, management, readership, distribution, layout, editorial direction, editorial content, and article content (it even includes comprehensive selections with short interpretive commentaries). Its readership consisted primarily of intellectuals, salarymen, and women in the Kyoto, Osaka, and Kobe areas, Shimokawa writes.<sup>310</sup> It was so popular that it spawned a short-lived competitor, *Nichiyôbi* (Sunday) and major regional newspapers such as the *Osaka shimbun* and the *Kyoto Hinode shimbun* entered into preliminary negotiations to buy *Doyôbi* out.<sup>311</sup> Thus Shimokawa concludes that it appealed to the “lower middle classes” as well.<sup>312</sup> Aside from *Doyôbi*’s distribution network of small bookstores and coffee shops, it had around two hundred paid subscribers extending as far as Tokyo, Hiroshima, and Fukuoka.<sup>313</sup> Part of its threat to the state lied in its mass appeal and the organizers’ avowed mission to make the tabloid “easy to understand” for mass consumption and “enlightenment,” according to Shimokawa.<sup>314</sup>

Shimokawa viewed *Doyôbi* as an extension of the French writer Henri Barbusse’s Popular Front newspaper, *Vendredi* (Friday), whose slogan was “Bread, Peace, and Liberty.”<sup>315</sup> Based on the editorials of one of the other main organizers, Nose Katsuo, Shimokawa describes *Doyôbi* as a tabloid “working for the enlightenment of the petty bourgeois masses and the intellectuals in order to defend against an encroaching fascism” and as a vehicle for

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<sup>309</sup> Ibid., 1.

<sup>310</sup> Ibid., 142.

<sup>311</sup> Ibid.

<sup>312</sup> Ibid.

<sup>313</sup> Ibid., 141.

<sup>314</sup> Ibid., 144.

<sup>315</sup> Ibid., 145.

preparing the ground for the creation of a Popular Front in Japan.<sup>316</sup> Since openly espousing Marxism was no longer a tenable option, the organizers asserted the “destruction of feudal remnants,” “democracy,” “liberalism,” and “humanitarianism” instead, he writes.<sup>317</sup> He arranges *Doyôbi*’s content into eight different rubrics:

1. Glorifying articles in support of the Soviet Union.
2. Articles advocating for the protection of liberalism and democracy.
3. Articles emphasizing constitutional government and parliamentarianism (human rights violations, etc.).
4. Humanist articles (emphasis on respect for human beings).
5. Articles emphasizing the scientific spirit and rationalism.
6. Critical articles against the Nazification of Japan (Criticism of newspapers, the Japanese spirit, etc.)
7. Reports on the Popular Front movements, suggestive articles urging the formation of a Popular Front in Japan.
8. Articles emphasizing humanism and internationalism.<sup>318</sup>

With the “retreat of Marxism,” the organizers of *Doyôbi* concealed their revolutionary agenda behind the principles of liberal-democracy, rationalism, humanism, and internationalism, according to Shimokawa.<sup>319</sup> For him it was an undercover and more subversive version of the anti-fascist journal, *Sekai bunka*, which was being published at the same time.

Even *Doyôbi*’s slogan—“Courage Towards Life. Clarity of Spirit. Friendship Without Separation. *Doyôbi*: An Afternoon of Rest and Reflection”—was interpreted subversively as an attempt to build and expand the international Popular Front against fascism and eventually instigate socialist revolution. The slogan and image of “Saturday” as a day of rest and

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<sup>316</sup> Ibid., 143.

<sup>317</sup> Ibid., 144.

<sup>318</sup> Ibid., 144-145.

<sup>319</sup> Ibid., 144.

reflection put forth the proper mood of cooperation and friendship, which according to Shimokawa, was the “necessary feeling for instigating the Popular Front movement.”<sup>320</sup> “Courage Towards Life” sought to appeal to the alienation of salaried men and the nihilism of university students towards modern life. “Clarity of Spirit” represented the employment of rationality and intelligence against a fanatical fascism. “Friendship Without Separation” meant building an international solidarity between the workers, the petty bourgeoisie, the peasants, and the intelligentsia. Finally, “An Afternoon of Rest and Reflection,” meant creating a space for reflection, which according to Shimokawa, represented the greatest threat to fascism since “fascism constantly pushes unexamined and contradictory beliefs and makes people swallow them.”<sup>321</sup> The excerpts from Nakai and Nose’s editorials were also interspersed with Shimokawa’s interpretive notes such as “dreams for a new society,” “anti-fascism,” “criticism of feudal consciousness,” and “promotion of a liberal spirit.”<sup>322</sup> The film section too was seen as the clever recognition by the organizers of the effectiveness of film for mass enlightenment.<sup>323</sup> Thus almost every word was linked to the larger mission of building a socialist inspired Popular Front against fascism. It was based on these alleged links to the Comintern’s advocacy of an international Popular Front of leftist movements against fascism that Nakai and others were finally arrested in October 1937.

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<sup>320</sup> Ibid., 138.

<sup>321</sup> Ibid., 147.

<sup>322</sup> Ibid., 148, 152, 153, 155.

<sup>323</sup> Ibid., 168.

### ***Politics of the Everyday***

*Doyôbi*'s politics could indeed be categorized under the principles of liberalism, democracy, rationality, and humanitarianism—some of the key components of the democratic revolution. Several commentators and participants have interpreted *Doyôbi* as an attempt to form a progressive “third force” between communism and fascism.<sup>324</sup> It is important to recognize a politics at work in *Doyôbi* that is irreducible to any “ism” or state determination of it as closet socialism, for example. It is interesting to note that Shimokawa uses Nose's more explicit, “vanguardist” editorial agenda to define *Doyôbi*'s politics, rather than Nakai's more abstract political writings as set forth in “The Logic of Committee” (published in *Sekai bunka*) and his editorials. Moreover, according to Kuno, Nakai himself was criticized by his more explicitly socialist and vanguardist colleagues who tended to privilege class politics and the supposedly universal laws of socialist development.<sup>325</sup> Instead of interpreting *Doyôbi*'s politics as a secret attempt to mobilize the working class or foment proletarian revolution, it is also important to understand the tabloid through Nakai's editorial vision or in other words, as the attempt to develop a radical democratic politics of everyday life. *Doyôbi*'s vision went beyond the state and much of the left's vision of politics as the struggle between predetermined social agents within a closed social system. For many of the editors, politics was articulated within the contingent popular struggles of the people, not in some abstract political program or predetermined historical trajectory.

As we have seen from Nakai's editorials and writings, the defining problematic for him was the incorporation of people into large capitalist

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<sup>324</sup> Tsurumi Shunsuke. “Sengo kara no hyôka” in Nakai Masakazu, *Bi to shûdan no ronri*, ed. Kuno Osamu. Tokyo: Chûo kôronsha, 1962. Kuno, “Fashizumu.”

<sup>325</sup> Yoshida, “Seikatsu ni taisuru yûki,” 27.

organizations and productive mechanisms—the law of production and commodification increasingly governed all aspects of daily life and created a kind of productivist technocracy in 1930s Japan. In this context where people’s cultural, social, economic, and political lives were all being mobilized by the state for the war and for building the “New East Asian Order,” Nakai insisted on focusing on the “here and now” as the basis for constructing a democratic politics. Whereas the state sees revolutionary socialism in *Doyôbi*’s articles, Nakai sees a myriad of “blooming flowers” representing the everyday pleasures and struggles, questions and critiques of intellectuals, salarymen, working women, housewives, and shopkeepers. Whereas the state and *Doyôbi*’s orthodox communist intellectuals viewed the tabloid within larger ideological frameworks and historical goals (i.e. the inevitability of socialist revolution), Nakai viewed people’s daily questions about the workplace, the home, the school, the media, and the legal system as “small breezes” or the “raw ore” of unexpected historical change. All of the issues raised in *Doyôbi* —from reforming the entrance examination system to discrimination of Koreans to rising commodity prices—represented potential nodes of democratic mobilization. Thus rather than laying out a set political program for certain predetermined political subjects, *Doyôbi* sought to create an arena for the people to articulate a democratic politics relevant to their multiple lives at hand.

Nakai wrote his theory of politics, “The Logic of Committee,” as he was engaged in publishing *Doyôbi*. While the tabloid never realized his conception of establishing “the committee” or a radical democratic vehicle for social transformation, it nevertheless embodied some of its concepts. The committee perhaps was the thirty or so intellectuals who launched *Doyôbi*

under the editorship of Nakai, Nose and Saitô who wrote many of the articles in the beginning and selected contributions from the readership. As a result, the published articles and contributions usually asserted social democratic values of class, gender, and ethnic equality, which the state recognized as closet socialism. At the same time, however, the editors repeatedly expressed surprise at the number, variety, and quality of contributions they received that deepened or specified these progressive principles, often by postcard.<sup>326</sup> In several issues, the editors wrote that they received so many contributions that they had to shorten and even omit some articles.<sup>327</sup> Thus the tabloid was not entirely run with an iron fist “from above.” The inclusion of debate and criticism, the constant struggle to maintain readability and to avoid jargon, and the conscious effort to use alternate circulatory methods to gain a mass audience also resonated with “The Logic of Committee’s” explicit goal of establishing a political medium firmly rooted in the energies and desires of the people. Ultimately, *Doyôbi* sought to become “the ears and voice of thousands of people” amidst the productivist, technocratic structures mobilizing daily life, as Nakai writes in one of his lead editorials.<sup>328</sup>

While *Doyôbi* never successfully created the radically democratic “committee” rooted in the desires of the people, it did achieve something else that was potentially threatening to the state. Rather than openly asserting an identifiable political agenda or mobilizing people based on explicit ideologies or historical objectives, *Doyôbi* insisted on remaining at the level of people’s everyday struggles and questions. Or in Nakai’s words, they insisted on remaining *within* the messy reality of history rather than reducing that reality to

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<sup>326</sup> December 5, 1936 and December 19, 1936 issues. *Doyôbisha*, 70, 76.

<sup>327</sup> June 5, 1937 and October 5, 1937 issues. *Ibid.*, 136, 184.

<sup>328</sup> Nakai, “*Doyôbi kantôgen*,” 35-36.

some overarching framework or ideology. In a context where work, leisure, family, consumption, and political life were incorporated into technocratic structures of production, people had little space of their own. However, instead of asserting some romantic, untouched space of resistance, Nakai and the organizers insisted on “rest and reflection” or taking a step back from one’s “commodified and specialized” reality to see what one could find or discover at hand. The housewife burdened with debts and rising food prices; the bicycle shop owner faced with fierce competition, low sales, and high taxes; the salarymen criticizing the inefficient and unpredictable local bureaucracy; the film viewer engaging with social issues presented in popular films; the department store lady asserting pride over her work and anger at men’s “feudal attitudes”; the fashion reviewer giving practical advice on work clothing—these and more represent the “flowers” among the “steel rails” of technocratic society. These variety of issues were the “here and now” that needed to be “grasped” and expanded into multiple nodes of critique and democratic transformation. *Doyôbi* never privileged a certain axis of political struggle but sought to expand the liberal-democratic imaginary throughout society.

While these critiques of the “here and now” did not represent any immediate threat to the state, the authorities nevertheless still recognized some danger. Although he is most likely not referring to the Japanese state, Shimokawa still notes that “reflection” is a danger to fascism since fascism is characterized by incessant spiritual mobilization.<sup>329</sup> By displaying and encouraging people’s everyday pleasures and struggles, and receiving a

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<sup>329</sup> Shimokawa, 147. The Japanese state did not identify itself as fascist; however, they closely identified with the ideology and policies of fascist Italy and Nazi Germany.

genuinely popular response, *Doyôbi* was mobilizing at the level of what mattered most to people, which is precisely what the state found most difficult to appropriate or completely repress. While a tangible “third political force” did not emerge, smaller cultural groups did (i.e. what Shimokawa calls the “Kyoto Cultural Movement”) and the consumer cooperative movement reached its peak in 1936-1937. Those working with purist notions of party building and mass organizing might deem this a failure. However, Nakai was never interested in some pre-determined utopia or historical objective but rather in what he broadly referred earlier to as “technologies” in everyday life. That is to say, creating “chance,” “opportunity,” “points of departure,” and “small breezes” of critique and change. “The Logic of Committee” and *Doyôbi* were attempts to give these creative energies some egalitarian horizon. They sought the constant growth or “deepening” of democratic subjectivity and sociality amidst the technocratic systems of everyday life. Michel de Certeau perhaps best articulates the thought of “deepening subjectivity” through a politics of the everyday that Nakai was struggling to articulate in his book, *The Practice of Everyday Life*. He quotes Witold Gombrowicz who describes the “politics” of a small-time official typical of the early twentieth century:

“When one does not have what one wants, one must want what one has”: “I have had, you see, to resort more and more to very small, almost invisible pleasures, little extras... You’ve no idea how great one becomes with these little details, it’s incredible how one grows.”<sup>330</sup>

Ultimately, it is the “tactics” of everyday life that *Doyôbi* tries to give voice to rather than the “strategies” of political parties and state institutions, which

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<sup>330</sup> Michel de Certeau. *The Practice of Everyday Life*. Berkeley and Los Angeles: University of California Press, 1984, xxiv.

sought to direct and therefore defuse the political energies of the people.<sup>331</sup> If these multiple voices could be transformed into opportunities for unexpected change and critical momentum at multiple levels of society, *Doyôbi* can be said to have realized its mission.

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<sup>331</sup> Ibid., xix.

## CONCLUSION

### *Post-War Continuities and Areas for Further Research*

The wartime idea of technology as a creative, mobilizing force permeating all aspects of life perhaps has reached full flower in post-war, “democratic” Japan. In a short essay at the end of the Japanese government’s report surveying the history of science and technology policy, Kôhei Suzue, one of the directors of the wartime Technology Board and Vice-Minister for Science and Technology in the 1960s, mentions some interesting continuities between the wartime and the post-war periods. With the assistance of Dr. Harley Kelly, Chief of the Economy and Science Division of General Headquarters’ Economy and Science Bureau, Japan was able to keep its powerful technology bureaucracy largely intact during the U.S. occupation.<sup>1</sup> Two institutions—the Science Council of Japan and the Science and Technical Administration Committee (STAC)—planned science and technology policy (“including human science”) and advised the government.<sup>2</sup> STAC became the nucleus of the Science and Technology Agency, which was established in 1956. According to Kôhei, the wartime Technology Board and the post-war Science and Technology Agency “both conducted large-scale research and development up to the point of national projects, or projects which lent themselves to integration rather than being carried out individually by various ministries.”<sup>3</sup> The idea of integrating all areas of science and technology policy into a centralized bureaucracy lived on into the post-war.

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<sup>1</sup> Commission, 432.

<sup>2</sup> Ibid.

<sup>3</sup> Ibid., 435.

Centrally planned scientific and technological development was closely linked to Prime Minister Ikeda Hayato's "National Income-Doubling Plan" in 1960, which laid the foundations for Japan's high-speed economic growth. This roughly corresponds to Habermas's thesis of the two conditions for the formation of a pervasive "technocratic consciousness"—active state intervention in the economy and the promotion of science and technology as a leading productive force.<sup>4</sup> A glance at the four reports between 1960 and 1984 outlining the long-term fundamentals of Japan's science and technology policy reveals a clear pattern of increasing state-promotion of science and technology in all areas of life. While in 1960 the "basic concepts" of the policy outline referred to qualitative and quantitative increases in research for economic growth and eliminating the gap with Europe and North America, by 1984 they were "harmony between science and technology and human society" and "growth of science and technology full of creativity."<sup>5</sup> In addition to the "big sciences" such as aerospace and nuclear energy, the Japanese government promoted research and development in the life sciences, large-scale civil engineering projects, telecommunications, transportation, the environment, computer technology, and city planning as well.<sup>6</sup>

Against the backdrop of widespread social unrest in the late 1960s and 1970s, authors such as Umesao Tadeo, Koyama Kenichi, Hayashi Yûjiro, and Masuda Yoneji popularized the concept of "informationalized society" (*jôhōka shakai*) as a vision for "post-industrial" Japan. Similar to the programs put forth by American futurists such as Daniel Bell, information society theorists

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<sup>4</sup> Habermas, 100.

<sup>5</sup> *Ibid.*, 172-173.

<sup>6</sup> For a broad overview, see Chapter 4, "History of the Development of Major Science and Technology Fields," in Commission, 277-424.

saw the computer as revolutionizing industrial production through automation and integration between the office, factory, and the consumer (e.g. “Just-in-Time Production”).<sup>7</sup> Production would become information-intensive, and “innovation, planning, design, and marketing would represent an integral and increasing share in the value of goods and services.” Masuda went so far as to envision a “computopia” where the increasing availability of information and leisure would result in a kind of spiritual renaissance and the elimination of class conflict.<sup>8</sup>

At the 1987 Venice Economic Summit, Prime Minister Yasuhiro Nakasone government proposed the establishment of the Human Frontier Science Program (HFSC), an international consortium dedicated to promoting basic interdisciplinary research on the “complex mechanisms of living organisms” ranging from their molecular and cellular makeup to their cognitive functioning.<sup>9</sup> Perhaps the most symbolic event that illustrated the extent to which technology permeated the Japanese imagination was the 1985 Tsukuba International Exposition sponsored by the Science and Technology Agency. Its theme was “Dwellings and Surroundings—Science and Technology for Man at Home.”<sup>10</sup> Tsukuba itself was a “science and technology city” composed of research laboratories, government institutes, businesses, and a large university dedicated to creating an ideal environment for research and development.<sup>11</sup> With the proliferation of technology into newer areas such as information, biotechnology, the home, and urban planning, post-war Japan

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<sup>7</sup> Nick Dyer-Witherford, *Cyber-Marx: Cycles and Circuits of Struggle in High-Technology Capitalism* (Urbana and Chicago: University of Illinois Press, 1999), 20.

<sup>8</sup> Dyer-Witherford, 20. See also Tessa Morris-Suzuki, *Beyond Computopia: Information, Automation and Democracy in Japan* (London; New York: Kegan Paul International, 1988).

<sup>9</sup> Commission, 178. For more on this program, see <http://www.hfsp.org/about/AboutAreas.php>

<sup>10</sup> Commission, 243.

<sup>11</sup> Morris-Suzuki, “Technological Transformation,” 180.

has surpassed the wildest wartime technological visionaries. More detailed research, however, is needed to establish the precise continuities between the wartime technological imaginary and post-war conceptions—especially on how technology has continued to operate as a system of mobilization.<sup>12</sup>

Another area requiring further research concerns just how this more subjective, creative notion of technology operated in the wartime Japanese empire.<sup>13</sup> As we saw, many “technology bureaucrats” such as Mōri developed their conceptions in Manchuria during the 1920s and 1930s. For example, Ôkochi Masatoshi, head of the industrial concern Riken (Institute for Physical and Chemical Research) and proponent of “scientific industry” also headed the Continental Science Board in Manchuria, and his industrial empire included factories in Korea. What kinds of activities did he conduct at the Board, and how exactly did “scientific industry” operate in the colonies? Hayashi Yûjiro, one of the post-war proponents of information society theory, was a Technology Board bureaucrat who was sent to Southeast Asia to plan the establishment of “an institute for research and development for the Co-Prosperity Sphere of Greater Asia with branches in several areas (almost identical to the present ASEAN).”<sup>14</sup> He spent three decades at the Economic

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<sup>12</sup> William Tsutsui shows how the Economic Friends' Association (*Keizai dōyūkai*), a group of young business leaders and management experts, helped spread the Human Relations approach to labor management and the techniques of Quality Control immediately after the war. Both strongly resonate with attempts by the Japanese state and business to encourage technical innovation and active participation in improving production during the wartime (e.g. the case of Hitachi Manufacturing in the film, *The Present Battle*). See Tsutsui, 122-235.

<sup>13</sup> For a study on the building of the East Asian Telecommunications Network for the Greater East Asia Co-Prosperity Sphere, see Daqing Yang, “The Technology of Japanese Imperialism: Telecommunications and Empire Building” (Ph.D. dissertation, Harvard University, 1996). For a study of how Taiwanese doctors under the Japanese empire changed from being anti-Japanese nationalists to embracing Japan’s modernist pan-Asianist vision, see Ming-Cheng Lo, *Doctors Within Borders: Profession, Ethnicity, and Modernity in Colonial Taiwan* (Berkeley: University of California Press, 2002).

<sup>14</sup> Commission, 430.

Planning Agency during the post-war, and as a leader of the Japan Philanthropy Association, he is currently one of the biggest proponents of neo-liberal “voluntarism” for the “non-profit enterprise” sector.<sup>15</sup> How did his wartime visions of expanding the cooperative New Order for Science and Technology throughout the Japanese empire continue on into his post-war visions of a cooperative “information society” and a dynamic “non-profit enterprise” sector composed of energetic volunteers? Finally, how did Chinese and Korean engineers and skilled workers under the Japanese empire adopt these subjective notions of technology, if at all? Did their conceptions continue into the post-war developmentalist regimes?

### ***Whither the Political?***

In my dissertation, I have demonstrated the existence of a widespread discourse of technology among Japanese elites as subjective, existential, ethical, and practical. All human activity was seen as mediated through technology and could be described as “cultural,” “political,” or “economic” technology, for example. Therefore, I contest the view that wartime Japan was predominantly a period of anti-modern and culturalist ideologies during which the Japanese state tried to assert a “pure Japanese essence” against inhuman Western technology as Andrew Feenberg and other commentators of the period suggest.<sup>16</sup> The wartime technological imaginary was established in

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<sup>15</sup> For a critique of “voluntarism” and mobilization in the post-war Japan, see Nakano Toshio, “Boranteia dōingata shimin shakairon no kansei” [The Formation of the Social Theory of the Volunteer Mobilization-Type Citizen], *Gendai shisō* 27, no. 5 (1999):72-93.

<sup>16</sup> Feenberg, 11. While these Japanese elites often articulated technology through “Japaneseness,” they rejected notions of technology as being opposed to some Japanese cultural essence. Many even tried to articulate technology through pan-Asianism.

the context of imperialism, and it continued into Japan's post-war transformation in many unexpected ways.

The articulation of technology as embodying certain ways of creative thinking, acting or being, as well as values of rationality, cooperation, and efficiency sought to incorporate the practical-political energies of the people into the utopian project of creating a modernizing, non-capitalist order in East Asia without class or ethnic conflict. "Economic technologies" attempted to employ the abilities and talents of workers to improve productivity and innovation. "Cultural technologies" sought to mobilize the powerful affects created by the mass media to encourage the "cultural construction of East Asia" and spread technical values. The New Order for Science and Technology was the first step toward establishing an efficient, functionalized society based on occupation and technical process. Even "typical" technology such as machines and tools no longer represented alienation and de-humanization, but creativity and spiritual fulfillment. In short society was increasingly represented as a dynamic "auto-poietic" system of technologies that were forging a new order.

As we saw, however, this exposure of the creative, practical-political nature of technology revealed a fundamental indeterminacy and ambiguity at the very heart of technology. If transformation, creativity, and production represented technology's essence, it can go in many *unexpected* directions.<sup>17</sup> While much of the Japanese ruling elites encoded technology towards mobilizing every sphere of human action towards constructing a New Order,

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<sup>17</sup> This is different from saying that technology is an inert, neutral object that can be instrumentally employed for specific human goals and ideologies. Rather, social technologies designed to produce a certain hegemonic order often produce unexpected effects and employments of the same dynamic technologies by the dominated. Here lies the ultimate indeterminacy of technology.

they were not successful in eradicating unexpected employments of those technologies. Mōri admitted that he was “defeated” by the Chinese peasant, which motivated him and his colleagues to invent newer economic and political technologies for their mobilization. Hitachi workers forced Aikawa and the producers of *The Present Battle* to include some of the actual problems and struggles of factory life in the film—boredom, lack of incentives, frequent accidents, slowdowns, stoppages, and rural and urban contradictions. While Aikawa employed cinematic technologies to capture the spirit of national solidarity and the “cultural construction of East Asia,” Nakai and his colleagues borrowed montage techniques from Soviet avant-garde filmmakers to capture the time of critique and revolution in their short films. Finally, Nakai used the power of mass print to stimulate the tactical energies *within* the technocratic structures of daily life—film and mass media, the workplace, the home, civil society, and the marketplace. In the pages of *Doyōbi*, people wrote about their everyday pleasures and struggles, generating potential nodes of democratic critique that the state took note of. In sum, while the technical logics of productivity, efficiency, and innovation increasingly sought to mobilize and arrange the practical-political energies of the people, unexpected deployments of these logics in turn appeared within the mobilization of everyday life. New technologies of productive power engendered alternative tactics of employing those technologies. The technological imaginary could not fully wipe out or co-opt the political—or what Nakai broadly articulated as the creative, inventive essence of technology—into its organicist dream of a hyper-productive, modernized society beyond capitalism and communism.

Whereas the wartime witnessed the development of the technological imaginary within various mechanisms of social production outside the factory,

the post-war saw a more intensive attempt to realize a “factory society,” as Hardt and Negri describe the production of all areas of life, or a “system society,” as Yamanouchi describes the diffusion of power into integrative social sub-systems. From the immediate post-war, the Japanese government developed plans to create a high technological society—the 1964 Tokyo Olympics, the 1970 Osaka Exposition, and the 1985 Tsukuba Exposition were spectacles that promised a globalized utopia integrated and saturated by technology.<sup>18</sup> From the 1970s until the present, visions of a post-industrial “technotopia” of automation, knowledge intensive labor, information highways, futuristic cities, and leisure influenced large sections of the ruling elites.

The result, however, has been downsizing, outsourcing, and an increasing reliance on the unorganized *furiitaa* or young freelance workers who once represented the vanguard of the information society.<sup>19</sup> The Japanese left of the 1960s and 1970s viewed the immensely popular “techno-cultural” celebrations of the Tokyo Olympics and the Osaka Expo as “spectacles whose displays and fetishistic explications of futuristic technologies distracted the masses from participating in public discourse.”<sup>20</sup> They responded with activities such as the “Folk Guerillas” movement whereby thousands of people occupied parts of Shinjuku Station in downtown Tokyo and created a counter-cultural space of debate and music.<sup>21</sup> This occurred in the context of a strong organized labor and student movement as

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<sup>18</sup> Sharon Hayashi and Anne McKnight, “Good-bye Kitty, Hello War: The Tactics of Spectacle and New Youth Movements in Urban Japan,” *positions east asia culture critique* 13, no. 1 (2005), 97.

<sup>19</sup> *Ibid.*, 95.

<sup>20</sup> *Ibid.*, 97.

<sup>21</sup> *Ibid.*, 98.

manifested in the immense anti-U.S. Japan Security Treaty protests of 1960 and 1970.

Recent social protest in light of the “information age,” however, has tactically employed the very same technologies that capitalism has used to downsize, outsource, and control labor instead of positing some counter-space “outside” technological culture. Sharon Hayashi and Anne McKnight examine a series of “rave demo protests” that sought to “reoccupy” the information saturated, commercial districts of Shibuya in downtown Tokyo and Shijō in downtown Kyoto. These “rave demos” were against Japan’s cooperation with the occupation of Iraq, Tokyo mayor Shintaro Ishihara’s emergency measures of public surveillance and mobilization, and the neo-liberal economic agenda pursued by Ishihara and Prime Minister Koizumi. They tactically employed popular forms of youth culture, art, and mass media such as DJ sound trucks and techno music, rave dancing, punk shows, 3-D videos projected on the sides of buildings, parodic posters of commercial icons, and colorful *cosplay* costumes of *anime* characters to mobilize political interest.<sup>22</sup> The protesters consisted of young *furiitaa*, students, downsized office ladies, salarymen, more traditional activists and academics, and curious shoppers and onlookers from the street who stumbled upon the protest.<sup>23</sup>

What is significant about these “protests” is their situating of themselves within mass media techno-culture and the multiple issues facing contemporary Japanese youth. Not only were there a number of musical constituencies at the protests, but other constituencies as well: anti-war demonstrators, homeless and *furiitaa* unions, students seeking autonomous cultural spaces,

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<sup>22</sup> Ibid., 88,

<sup>23</sup> Ibid., 94.

pornographic comic book authors protesting censorship, and simply curious or bored youth. While the rave-protests had an overall theme of “occupation” and “reoccupation,” they did not impose a definite “rational” agenda on the protestors but let them express their multiple concerns instead. The protests sought to mobilize multiple nodes of critique and to reclaim the technologized structures of everyday life that preach support for the war, the information age, globalization, and so on. As such they are further examples of what Yamanouchi calls the “new social movements.” “These movements emphasize the expression of new aesthetic or cultural values related to their members’ own lifestyles and do not seek the institutionalization of their own rights as citizens at the nation-state level,” he writes.<sup>24</sup> They consciously reject the values of integration, productivity, and rationalization at the heart of technological society by seeking multiple possibilities within it. Interestingly enough, Nakai also saw the tactical possibilities of information for non-integrative, inventive purposes in his capacity as the first Vice-Director of the Diet Library in the post-war. Continuing the politics of the everyday he developed during the war, he helped create a national, comprehensive, and easily accessible system of information right before his death in 1952.<sup>25</sup> Therefore, in the spirit of the rising new social movements, he continued to insist on the essential ambivalence of technology—in this case, information technology—which could be employed for all sorts of inventive, democratic purposes as opposed to the hegemonic objectives of capital and the state.

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<sup>24</sup> Yamanouchi, 27.

<sup>25</sup> For more on Nakai’s activities in the Diet library, see Satō Shinichi, *Nakai Masakazu: ‘Toshokan’ no ronrigaku* [Nakai Masakazu: The Logic of Libraries] (Tokyo: Kindai bungeisha, 1992).

## WORKS CITED

### Primary Sources

- Aikawa Haruki. *Bunka eigaron*. Tokyo: Kasumigaseki shobô, 1944.
- Aikawa Haruki. *Gendai gijutsuron*. Tokyo: Mikasa shobô, 1940.
- Aikawa Haruki. *Gijutsu no seisaku to riron*. Tokyo: Kigensha, 1942.
- Aikawa Haruki. *Gijutsu oyobi ginô kanri: tairyô seisan he no tenkan*. Tokyo: Tôyô shokan, 1944.
- Aikawa Haruki. "Gijutsu oyobi tekunorogî no gainen," *Yuibutsuron kenkyû*, (June 1933).
- Aikawa Haruki. *Gijutsuron*. Tokyo: Mikasa shobô, 1935.
- Aikawa Haruki. *Gijutsuron nyûmon*. Tokyo: Mikasa shobô, 1942.
- Aikawa Haruki, Yamazaki Toshio, and Tanaka Minoru. *Hatsumei hakken zusetu*. Tokyo: Iwasaki shoten, 1952.
- Aikawa Haruki. "Hatsumei no soshiki genri," *Tôa renmei*. (Sept. 1941).
- Aikawa Haruki. "Hitachi kôjô kengakuki," *Gijutsu hyôron*, (March 1942)
- Aikawa Haruki. "Hitachi seisakusho Hitachi kôjô: Kôjô kengakuki – hatsumei hôshôsei no moderu," *Gijutsu hyôron*, (Sept. 1941).
- Aikawa Haruki. *Nôson keizai to nôgyô kyôko* Tokyo: Iwanami shoten, 1933.
- Aikawa Haruki. *Rekishi kagaku no hôhôn*. Tokyo: Hakuyôsha, 1935.
- Aikawa Haruki. *Sangyô gijutsu*. Tokyo: Hakuyôsha, 1942.
- Aikawa Haruki. *Tôna ajia no shigen to gijutsu*. Tokyo: Mikasa shobô, 1944.
- Aikawa Haruki, "Zaiso minshû undô no hito kessan: sono seika to jiko hihan" in Utsumi Kôichirô, Yamazaki Toshio, and Kobayashi Tango, ed. *Aikawa Haruki shôden*. Tokyo: Yanami sada, 1979.

- Akinaga Tsukizô, Hoshino Naoki, Môri Hideoto, Shiina Etsusaburô, Takahashi Kôjun, et. al. "Manshûkoku keizai no genchi zadankai," *Tôyô keizai shinpô*, (Oct. 24, 1936).
- Asano Tatsuo, "Konnichi no tatakai: Seisaku hôkoku," *Bunka eiga*, (June 1942).
- Baba Keiji. *Gijutsu to keizai*. Tokyo: Nihon hyôronsha, 1936.
- Bi Hihyôsha. *Bi hihyô fukuseiban*. Tokyo: Waseda Daigaku Toshokan, 1965.
- Doyôbisha. *Doyôbi Fukkokuban*. Tokyo: Sanichi Shobô, 1974.
- Eiga junpô. "Chihô toshi fûgirikan hachi gatsu dai go shû kôgyô seiseki hyô," *Eiga junpô*, (Sept 21, 1942).
- Eiga junpô. "Tokyo fûgirikan hachi-gatsu dai yon shû, dai go shû kôgyô seiseki hyô," *Eiga junpô*, (Sept. 21, 1942).
- Ishimoto Itsuo, Kubo Kichizô, Shiina Etsusaburô, et al., "Nichi-Man-Shi o tsûzuru keikaku keizai no sai ginmi zadankai," *Chôsa shûhô*, (Feb. 9, 1939).
- Kamakura Ichirô. "Chûgoku no 'kôsen kenkoku' o hihan su," *Kaibô jidai*, (Feb. 1939).
- Kamakura Ichirô. "Chûshôteki bukka to gutaiteki bukka," *Kaibô jidai*, (April 1940).
- Kamakura Ichirô. "Gijutsu no kaihô to seiji," *Kaibô jidai*, (Sept. 1939)
- Kamakura Ichirô. "Handô o kokufuku suru seiji: Kigen nisen roppyaku hyakunen sengen," *Kaibô jidai*, (Jan. 1940).
- Kamakura Ichirô. "Jihen dai yon ki wa seiji o tenkai su," *Kaibô jidai*, (Dec. 1938).
- Kamakura Ichirô. "Kokumin keizai to shieki," *Kaibô jidai*, (May 1939).
- Kamakura Ichirô. "Kokumin saisoshiki to tôa kyôdôtai no fukabunsei," *Kaibô jidai*, (Jan. 1939).
- Kamakura Ichirô. "Kokumin seikatsu soshiki no kiten," *Kaibô jidai*, (Nov. 1939).

- Kamakura Ichirô. "Taiheiyô kûkan no seikaku kakumei – Sekai seiji to tôa kyôeiken no hensei," *Chûô kôron*, (Nov. 1940).
- Kamakura Ichirô. "'Tôa ittai' toshite no seijiryoku," *Kaibô jidai*, (Nov. 1938).
- Kamakura Ichirô. "Tôa kyôdôtai to gijutsu no kakumei," *Kaibô jidai*, (Mar. 1939).
- Kamakura Ichirô. "Tôa kyôseitai kensetsu no sho jôken," *Kaibô jidai*, (Oct. 1938).
- Kamakura Ichirô. "Tôa ni okeru bôkyô no igi," *Kaibô jidai*, (June 1939).
- Kamakura Ichirô, "Tôsei keizai no binkon no gennin," *Kaibô jidai*, (Dec. 1939).
- Kiyomizu Chiyoda. "Geki eiga no bujoku kiroku," *Eiga junpô*, (October 1, 1942).
- Kokusaku kenkyûkai. *Dai tôa kyôeiken gijutsu taiseiron*. Tokyo: Nihon hyôronsha, 1945.
- Kubo Kenji. "Kôjô to bunka eiga," *Bunka eiga*, (May 1942).
- Miki Kiyoshi. "Gijutsu tetsugaku" in *Miki Kiyoshi zenshû 7*, ed. Ôuchi Hyôei, et. al. Tokyo: Iwanami Shoten, 1966-68.
- Miki Kiyoshi, "Ningengaku no Marukusuteki Keitai" in *Miki Kiyoshi zenshû 7*, ed. Ôuchi Hyôei, et. al. Tokyo: Iwanami Shoten, 1966-68.
- Miyamoto Takenosuke. *Tairiku kensetsu no kadai*. Tokyo: Iwanami Shoten, 1941.
- Môri Hideoto and Miki Kiyoshi. "Ashita no kagaku nihon no sôzô." *Kagakushugi kôgyô*, (Jan. 1941).
- Môri Hideoto. "Dai tôa bunka no igi," *Môri Hideoto monjo*, Document 222.
- Môri Hideoto. "Dai tôa sensô o tsûjite," *Môri Hideoto monjo*, Document 213, 1942 or 1943.
- Môri Hideoto. "Gijutsu to kokumin seikatsu," *Keizai Jôhô*, (March 1940).

- Môri Hideoto. "Haihin kaishû roku," *Kagakushugi kôgyô*, (Dec. 1939).
- Môri Hideoto, Sakomizu Hisatsune, et. al. "Kakushin kanryô: Shintaisei wo kataru zadankai," *Jitsugyô no Nihon*, (Jan. 1941).
- Môri Hideoto. "Keizai shintaisei kôza," *Môri Hideoto monjo*, Document 221.
- Môri Hideoto. "Nihon kokumin keizai no keisei to seiji: hô toshite no 'tôa no shin chitsujo,'" *Kaibô jidai*, (April 1939).
- Môri Hideoto. "Seisan keizai no kompon rinen," *Kagakushugi kôgyô*, (Oct. 1940).
- Môri Hideoto. "Shina no sangyô kaihatsu." *Tôyô*, (August 1939).
- Môri Hideoto. "Tai shi keizai gijutsu no sôzô," *Keizai jôhô*, (June 1939).
- Môri Hideoto. "Tôa keizai kensetsu ni tsuite, dai ikkô," *Môri Hideoto monjo*, Sept. 1944. Document 218.
- Môri Hideoto. "Tôa keizai no kensetsu ni tsuite, dai ni kô," *Môri Hideoto monjo*, Document 219.
- Nagata Hiroshi, "Seisanryoku no yôsô toshite no rôdôryoku ni tsuite." *Yuibutsuron kenkyû*, (Jan. 1933):46-49
- Nakai Masakazu. "Bigaku nyûmon" in *Nakai Masakazu zenshû 3*. Tokyo: Bijutsu Shuppansha, 1981.
- Nakai Masakazu. "Butsuri-teki shûdan-teki seikaku" in *Nakai Masakazu zenshû 3*. Tokyo: Bijutsu Shuppansha, 1981.
- Nakai Masakazu. "Doyôbi kantôgen," in *Nakai Masakazu zenshû 4*. Tokyo: Bijutsu Shuppansha, 1981.
- Nakai Masakazu. "Geijutsu ni okeru baikai no mondai" in *Nakai Masakazu zenshû 2*. Tokyo: Bijutsu Shuppansha, 1981.
- Nakai Masakazu. "Gôrishugi no mondai" in *Nakai Masakazu zenshû 1*. Tokyo: Bijutsu Shuppansha, 1981.
- Nakai Masakazu. "Haru no Kontinuitii" in *Nakai Masakazu zenshû 3*. Tokyo: Bijutsu Shuppansha, 1981.

- Nakai Masakazu. "Hatsugen keitai to chôshû keitai narabini sono geijutsuteki tenbô" in *Nakai Masakazu zenshû 1*. Tokyo: Bijutsu Shuppansha, 1981.
- Nakai Masakazu. "linkai no Ronri" in *Nakai Masakazu zenshû 1*. Tokyo: Bijutsu Shuppansha, 1981.
- Nakai Masakazu. "Imi no kakuen hôkô narabini sono higekisei" in *Nakai Masakazu zenshû 1*. Tokyo: Bijutsu Shuppansha, 1981.
- Nakai Masakazu. "Kaiko jûnen: omoiizuru mama ni" in *Nakai Masakazu zenshû 1*. Tokyo: Bijutsu Shuppansha, 1981.
- Nakai Masakazu. "Kikaibi no kôzô" in *Nakai Masakazu zenshû 3*. Tokyo: Bijutsu Shuppansha, 1981.
- Nakai Masakazu. "Kontinyuiti no ronrisei" in *Nakai Masakazu zenshû 3*. Tokyo: Bijutsu Shuppansha, 1981.
- Nakai Masakazu. "Miki to Kosei" in *Nakai Masakazu zenshû 1*. Tokyo: Bijutsu Shuppansha, 1981.
- Nakai Masakazu. "Mosharon no bigakuteki kanren" in *Nakai Masakazu zenshû 1*. Tokyo: Bijutsu Shuppansha, 1981.
- Nakai Masakazu. "Shikisai Eiga no Omoide" in *Nakai Masakazu zenshû 3*. Tokyo: Bijutsu Shuppansha, 1981.
- Nakai Masakazu. "Shisô-teki kiki ni okeru geijutsu narabini sono dôkô" in *Nakai Masakazu zenshû 2*. Tokyo: Bijutsu Shuppansha, 1981.
- Nakai Masakazu. "Shûdan bi no igi" in *Nakai Masakazu zenshû 2*. Tokyo: Bijutsu Shuppansha, 1981.
- Nakai Masakazu. "Supôtsu kibun no kôzô" in *Nakai Masakazu zenshû 1*. Tokyo: Bijutsu Shuppansha, 1981.
- Nakai Masakazu. "Supôtsu no biteki yôso" in *Nakai Masakazu zenshû 1*. Tokyo: Bijutsu Shuppansha, 1981.
- Nakai Masakazu. "Tenkanki no Bigaku" in *Nakai Masakazu zenshû 2*. Tokyo: Bijutsu Shuppansha, 1981.

- Nakai Masakazu. "Tosaka-kun no Tsuioku" in *Nakai Masakazu zenshû* 1. Tokyo: Bijutsu Shuppansha, 1981.
- Nishida Kitarô. "Kôiteki chokkan" and "Ronri to seimei" in *Nishida Kitarô zenshû* 8, ed. Abe Yoshitaka, et. al. Tokyo: Iwanami shoten, 1953.
- Ôkochi Masatoshi. *Shihonshugi kôgyô to kagakushugi kôgyô*. Tokyo: Kagakushugi kôgyôsha, 1938.
- Ôtsuka Kyôichi. "Bunka eiga hihyô: Konnichi no tatakai," *Eiga junpô*, (Sept. 21, 1942).
- Rôyama Masamichi. "Gijutsu to gyôsei," *Kagakushugi kôgyô*, (May 1938).
- Saigusa Hiroto. "Gijutsu no Grenzgebiet" in *Kagakushugi kôgyô*, (September 1937).
- Sekai Bunkasha. *Sekai bunka fukuseiban*. Tokyo: Shôgakkan, 1975.
- Shimokawa Gen. *Jinmin sensen to bunka undô*. Kyoto: Tôyô Bunkasha, 1986.
- Sugihara Manami. *Tôa kyôdôtai no genri*. Tokyo: Modan Nihonsha, 1940.
- Tosaka Jun. "Gijutsu tetsugaku" in Tosaka Jun, *Tosaka Jun zenshû* 3. Tokyo: Keisô shobô, 1966-1979.
- Ueno Kôzô. "Bunka eiga geppô," *Nihon eiga*, (Aug. 1, 1942).
- Yamada Moritarô. *Nihon shihon shugi bunseki: Nihon shihon shugi ni okeru saiseisan katei haaku*. Tokyo: Iwanami shoten, 1934.

### **Secondary Sources**

- Alexander, Martin and Helen Graham, ed. *The French and Spanish Popular Fronts*. Cambridge: Cambridge University Press, 1989.
- Althusser, Louis. "Contradiction and Overdetermination" in Louis Althusser, *For Marx*, tr. Ben Brewster. London: Verso, 1996.
- Arrison, Thomas S., et. al. *Japan's Growing Technological Capability: Implications for the U.S. Economy*. Washington, D.C.: National Academy Press, 1992.

- Balász, Béla. *Der sichtbare Mensch: oder, Die Kultur des Films*. Frankfurt am Main: Suhrkamp, 2001.
- Balász, Béla. *Theory of the Film: Character and Growth of a New Art*, tr. Edith Bone. New York: Dover Publications, 1970.
- Barnhart, Michael. *Japan Prepares for Total War: The Search for Economic Security, 1919-1941*. Ithaca: Cornell University Press, 1987.
- Becker Oskar. *Bi no hakanasa to geijutsuka no bôkensei: biteki genshō ryōiki ni okeru sonzaironteki kenkyū*. tr. Yuasa Seinosuke. Tokyo: Risōsha, 1932.
- Becker Oskar. *Mathematische Existenz: Untersuchungen zur Logik und Ontologie mathematischer Phänomene*. Halle: Niemayer, 1927.
- Becker Oskar. "Von der Hinfälligkeit des Schönen und der Abenteuerlichkeit des Künstlers : eine ontologische Untersuchung im ästhetischen Phänomenbereich," in *Jahrbuch für Philosophie und phänomenologische Forschung, Ergänzungsband, Husserl-Festschrift*, 1929.
- Benjamin, Walter. "The Work of Art in the Age of Mechanical Reproduction" in Walter Benjamin, *Illuminations*, ed. Hannah Arendt, tr. Harry Zohn. New York: Schocken Books, 1968.
- Bix, Herbert. "Rethinking Emperor-System Fascism" *Bulletin of Concerned Asian Scholars* 14, (1982).
- Bloom, Justin L. *Japan as a Scientific and Technological Superpower*. Potomac, Md.: Technology International and Springfield, Va.: U.S. Dept. of Commerce, National Technical Information Service, 1990.
- Bukharin, Nikolai. *Historical Materialism: A System of Sociology* (New York: International Publishers, 1925).
- Cassirer Ernst. *Substance and Function & Einstein's Theory of Relativity*, tr., William Swabey and Marie Swabey. New York: Dover Publications, Inc., 1953.
- Cheney, David W. and William W. Grimes. *Japanese Technology Policy: What's the Secret?* Washington, D.C.: Council on Competitiveness, 1991.

- The Commission on the History of Science and Technology Policy, ed. *Historical Review of Japanese Science and Technology Policy*. Tokyo: Society of Non-Traditional Technology, 1991.
- Cusumano, Michael A. "‘Scientific Industry’: Strategy, Technology, and Entrepreneurship in Prewar Japan" in *Managing Industrial Enterprise*, ed., William D. Wray. Cambridge: Council of East Asian Studies/Harvard University, 1989.
- de Certeau, Michel. *The Practice of Everyday Life*, tr. Steven Rendall. Berkeley and Los Angeles: University of California Press, 1988.
- Duara, Prasenjit. *Sovereignty and Authenticity: Manchuria and the East Asian Modern*. Lanham: Rowman & Littlefield Publishers, Inc., 2003.
- Duus, Peter and Daniel I. Okimoto. "Fascism and the History of Prewar Japan: The Failure of a Concept" *Journal of Asian Studies* 39, no. 1 (1979).
- Dyer-Witherford, Nick. *Cyber-Marx: Cycles and Circuits of Struggle in High-Technology Capitalism*. Urbana and Chicago: University of Illinois Press, 1999.
- Feenberg, Andrew. *Critical Theory of Technology*. New York: Oxford University Press, 1991.
- Fletcher, William Miles. *The Search for a New Order: Intellectuals and Fascism in Prewar Japan*. Chapel Hill: University of North Carolina Press, 1982.
- Foucault, Michel. *Discipline and Punish*. New York: Pantheon, 1977.
- Foucault, Michel. "Technologies of the Self" in *Foucault: Ethics, Subjectivity, and Truth, Essential Works of Foucault, 1954-1984, Volume 1*, ed. Paul Rabinow, tr. Robert Hurley, et. al. New York: New Press, 1997.
- Fujita Teiji. "‘Bi Hiyô,’ ‘Sekai Bunka,’ ‘Doyôbi’ no tanjô: Nakai Bigaku no Shûhen 2" in Nakai Masakazu Geppô 2 in *Nakai Masakazu zenshû* 2. Tokyo: Bijutsu Shuppansha, 1981.
- Furukawa Takahisa. *Shôwa senchûki no sôgô kokusaku kikan*. Tokyo: Yoshikawwa kôbunkan, 1992.
- Furukawa Takahisa. "Kakushin kanryô no shisô to kôdô," *Shigaku zasshi*, (April 1990).

- Furumi Tadayuki. *Wasureenu manshûkoku*. Tokyo: Keizai ôraisha.
- Fynsk, Christopher. "Foreward: Experiences of Finitude" in Jean-Luc Nancy, *The Inoperative Community*, trans. Peter Connor, et. al., (Minneapolis: University of Minnesota Press, 1991).
- Gaonkar, Dilip Parameshwar. "On Alternative Modernities" in *Alternative Modernities*, ed. Dilip Parameshwar Gaonkar. Durham: Duke University Press, 2001.
- George, Timothy. *Minamata: Pollution and Struggle for Democracy in Postwar Japan*. Cambridge: Harvard University Asia Center, 2001.
- Gordon, Andrew. *Labor and Imperial Democracy in Prewar Japan*. Berkeley: University of California Press, 1991.
- Gottl-Ottlilienfeld, Friedrich. *Wirtschaft und Technik*. Tübingen: J.C.B. Mohr, 1923.
- Graham, Helen and Paul Preston. *The Popular Front in Europe*. New York: St. Martin's Press, 1987.
- Griffin, Roger. "The Palingenic Core of Generic Fascist Ideology" Oxford Brookes University, <http://ah.brookes.ac.uk/history/staff/griffin/coreoffascism.pdf>. (accessed on June 16, 2006).
- Habermas, Jürgen. "Modernity—An Incomplete Project," trans. Seyla Benhabib in *The Anti-aesthetic: Essays on Postmodern Culture*, ed. Hal Foster. Port Townsend, WA: Bay Press, 1983.
- Habermas, Jürgen. "Science and Technology as 'Ideology'" in Jürgen Habermas, *Toward a Rational Society: Student Protest, Science, and Politics*, tr. Jeremy J. Shapiro. Boston: Beacon Press, 1970
- Habermas, Jürgen. *The Theory of Communicative Action*, vols. 1-2, trans. Thomas McCarthy. Cambridge, MA: MIT Press, 1987.
- Härd, Mikael and Andrew Jamison. *The Intellectual Appropriation of Technology: Discourses on Modernity, 1900-1939*. Cambridge: The MIT Press, 1998.

- Hardt, Michael and Antonio Negri. *Labor of Dionysus: A Critique of the State-Form*. Minneapolis: University of Minnesota Press, 1994.
- Harootunian, Harry. *Overcome by Modernity: History, Culture and Community in Interwar Japan*. Princeton: Princeton University Press, 2000.
- Hata Ikuhiko. *Kanryô no kenkyû*. Tokyo: Kôdansha, 1983.
- Hayashi, Sharon and Anne McKnight. "Good-bye Kitty, Hello War: The Tactics of Spectacle and New Youth Movements in Urban Japan," *positions east asia culture critique* 13, no. 1 (2005).
- Heidegger Martin. *Being and Time*. tr., Joan Stambaugh. Albany: State University Press of New York, 1996.
- Herf, Jeffrey. *Reactionary Modernism: Technology, Culture, and Politics in Weimar and the Third Reich*. Cambridge: Cambridge University Press, 1984.
- Hirayabashi Hajime. "‘Bi hiyô,’ ‘Sekai bunka,’ to ‘Doyôbi:’ Chishikijin to shomin no teikô" in *Senjika teikô no kenkyû I: kiriutoshia jiyûshugisha no bâi*. Tokyo: Misuzu shobô, 1978.
- Horkheimer, Max and Theodor W. Adorno. *Dialectic of Enlightenment*, tr. John Cumming. New York: The Continuum Publishing Company, 1994.
- Hoston, Germaine. *Marxism and the Crisis of Development in Prewar Japan*. Princeton: Princeton University Press, 1986.
- Ihde, Don. *Existential Technics*. Albany: State University of New York Press, 1983.
- Imura Tetsuo. "‘Kôain chôsa hôkoku sômokuroku’ kaisetsu" in *Jyûgonen sensô jûyô bunken shirizu (17): Kôain kankô tosho zasshi mokuoku*, ed. Tetsuo Imura. Tokyo: Fuji shuppan, 1994.
- Inumaru Giichi. *Nihon jinmin sensen undôshi*. Tokyo: Aoki shoten, 1978.
- Itô Shunya. *Maboroshi no "Kyoto sutajio tsûshin" he*. Tokyo: Renga shobô shinsha, 1978.

- Itô Takashi. "Shôwa jûsannen Konoe shintô mondai kenkyû oboegaki" in Nihon seiji gakkai, ed., *Konoe shintaisei no kenkyû*. Tokyo: Iwanami shoten, 1972.
- Itô Takashi. "Môri Hideoto ron oboegaki" in Takashi Itô, *Shôwaki no seiji (zoku)*. Tokyo: Yamakawa shuppankai, 1993.
- Iwamoto Kenji. *Nihon eiga to modanizumu, 1920-1930*. Tokyo: Riburopôto, 1991.
- Iwasaki Minoru. "Desire for a Poietic Metasubject: Miki Kiyoshi's Technology Theory," in Yasushi Yamanouchi, J. Victor Koschmann, and Narita Ryuichi, ed. *Total War and 'Modernization.'* Ithaca: Cornell University East Asia Program, 1998.
- Jackson, Julian. *The Popular Front in France: Defending Democracy, 1934-38*. Cambridge: Cambridge University Press, 1988.
- Johnson, Chalmers. *MITI and the Japanese Miracle: The Growth of Industrial Policy, 1925-1975*. Stanford: Stanford University Press, 1982.
- Johnson, Jean M. *The Science and Technology Resources of Japan: A Comparison with the United States*. Arlington, VA : National Science Foundation, Division of Resource Science Studies, Directorate for Social, Behavioral, and Economic Sciences, 1997.
- Kasza, Gregory J. "Fascism from Below? A Comparative Perspective on the Japanese Right, 1931-1936" *Journal of Contemporary History* 19, no. 4 (1984).
- Kawahara Hiroshi. *Shôwa seiji shisô kenkyû*. Tokyo: Waseda daigaku shuppanbu, 1979.
- Kawakami Tetsutarô and Takeuchi Yoshimi, ed. *Kindai no chôkoku*. Tokyo: Fuzanbô, 1979.
- Kinoshita Nagahiro. "Nakai Masakazu no ikikata" in Kinoshita Nagahiro, *Nakai Masakazu: atarashii "bigaku" no kokoromi*. Tokyo: Riburopôto, 1995.
- Kodama, Fumio. *Analyzing Japanese Advanced High Technologies: The Techno-paradigm Shift*. London and New York: Pinter Publishers, 1991.

- Koschmann, J. Victor. "Tekunorojî no shihai/Shihai no tekunorojî" in *Iwanami kôza nihon kindai no bunkashi 7: Sôryokusenka no chi to seido, 1935-55 1 ed.*, Komori Yôichi, et al. Tokyo: Iwanami Shoten, 2002.
- Kozai Yoshishige. *Senjika no Yuibutsuronja-tachi*. (Tokyo: Aoki shoten, 1982).
- Kuno Osamu. "Bunka shimbun 'Doyôbi' no fukkoku ni yosete" in Doyôbisha. *Doyôbi Fukkokuban*. Tokyo: Sanichi Shobô, 1974.
- Kuno Osamu. *Fashizumu no naka no sen kyûhaku sanjû nendai*. Tokyo: Riburopôto, 1986.
- Kuno Osamu. "Sanjû nendai no shisôka tachi" in *Kuno Osamu shû 3*. Tokyo: Iwanami Shoten, 1998.
- Kurashi to kyôdô kenkyujo kyôdô kumiaishi kenkyûkai, ed. "Rekishi shiryôshû dai nana gô: Nose Katsuo to Kyoto (katei) shôhi kumiai – senzen Kyoto no shôhi kumiai 2" in *Kurashi to kyôdô no kenkyûkai tsûkan 35 go*. Kyoto: Kurashi to kyôdô no kenkyûjo, 2004.
- Kyoto Daigaku Shinbunsha. *Kuchibue to gunka: tennôsei fashizumu no sôbô*. Tokyo: Riburopôto, 1985.
- Kyoto seikatsu kyôdô kumiai, ed. *Deruta kara no shuppatsu – Seikyô undo to senkakusha Nose Katsuo*. Kyoto: Kamogawa shuppan, 1989.
- Kyûsei Toyama kôtô gakkô shisô bunka undôshi iinkai, ed. *Kyûsei Toyama kôtô gakkô shisô bunka undôshi*. Tokyo: Shinkô shuppansha, 1983.
- Laclau, Ernesto and Chantal Mouffe. *Hegemony and Socialist Strategy: Towards a Radical Democratic Politics*. London and New York: Verso, 1986.
- Lebra-Chapman, Joyce, ed. *Japan's Greater East Asia Co-prosperity Sphere: Selected Readings and Documents*. Kuala Lumpur; New York: Oxford University Press, 1975.
- Le Corbusier. *Towards a New Architecture*, tr. Frederick Etchells. New York: Dover Publications, 1986.
- Lo, Ming-Cheng. *Doctors Within Borders: Profession, Ethnicity, and Modernity in Colonial Taiwan*. Berkeley: University of California Press, 2002.

- Lukàcs Georg. "Reification and the Consciousness of the Proletariat" in *History and Class Consciousness: Studies in Marxist Dialectics*, trans. Rodney Livingstone. Cambridge: MIT Press, 1994.
- Maier, Charles S. "Society as Factory" in Charles S. Maier, *In Search of Stability: Explorations in Historical Political Economy*. Cambridge: Cambridge University Press, 1987.
- Marcuse, Herbert. *One Dimensional Man*. New York: Beacon Press, 1968.
- Marcuse, Herbert. "Repressive Tolerance" in Robert Paul Wolff, Barrington Moore, Jr., and Herbert Marcuse, *A Critique of Pure Tolerance*. Boston: Beacon Press, 1969, 95-137.
- Maruyama, Masao. "Theory and Psychology of Ultra-Nationalism" and "The Ideology and Dynamics of Japanese Fascism" in Masao Murayama, *Thought and Behaviour in Modern Japanese Politics*, ed. Ivan Morris. Oxford: Oxford University Press, 1969.
- Marx, Karl. "Theses on Feuerbach" in Lloyd D. Easton and Kurt H. Guddat, ed. *Writings of the Young Marx on Philosophy and Society*. Garden City, NY: Doubleday, 1967.
- Marx, Karl. *Karl Marx Frederick Engels Collected Works, Volume 35, Karl Marx: Capital, Vol. 1*. New York: International Publishers, 1996.
- Matsuo Takayoshi. *Takigawa jiken*. Tokyo:Iwanami shoten, 2005.
- Matsuoka Yoshikazu. "Nakai Masakazu to shôhi kumiai undo" in Nakai Masakazu Geppô 4 in *Nakai Masakazu zenshû* 4. Tokyo: Bijutsu Shuppansha, 1981.
- McGormack, Gavan. "Nineteen-Thirties Japan: Fascism?" *Bulletin of Concerned Asian Scholars* 14, (1982).
- Mimura, Janis. "Technocratic Visions of Empire: Technology Bureaucrats and the 'New Order for Science-Technology'" in *The Japanese Empire in East Asia and its Postwar Legacy*, ed. Harald Fuess. Munich: Iudicium-Verlag, 1998.
- Mimura, Janis. "Technocratic Visions of Empire: The Reform Bureaucrats in Wartime Japan." Ph.D. dissertation, University of California, Berkeley, 2002.

- Moore, Aaron. "Nakai Masakazu's Theory of Historical Collective Praxis in 'inkai no ronri:' Contributions Towards a Radical Democratic Philosophy," M.A. Thesis, Cornell University, 1999.
- Morley, James William. "Introduction: Choice and Consequence" in *Dilemmas of Growth in Prewar Japan*, ed. James William Morley. Princeton: Princeton University Press, 1971.
- Morris-Suzuki, Tessa. *The Technological Transformation of Japan: From the Seventeenth Century to the Twenty-first Century*. Cambridge: Cambridge University Press, 1994.
- Tessa Morris-Suzuki, *Beyond Computopia: Information, Automation and Democracy in Japan*. London; New York: Kegan Paul International, 1988.
- Nakamura Seiji. *Gijutsuron ronsôshi*, 2 vols, Tokyo: Aoki shoten, 1975.
- Nakamura Takafusa and Hara Akira. "Keizai shintaisei" in *Konoe shintaisei no kenkyû*. ed., Nihon seiji gakkai. Tokyo: Iwanami shoten, 1972.
- Nakano Toshio. "Boranteia dôingata shimin shakairon no kansei," *Gendai shisô* 27, no. 5 (1999).
- Nihon hyôron shinsha, ed. *Yôyôko: Minobe Yôji tsuitôroku*. Tokyo: Nihon hyôron shinsha, 1954.
- Nihon kindai shiryô kenkyûkai. *Kamei Kanichirô danwa sokkiroku*. Tokyo: Nihon kindai shiryô kenkyûkai, 1969.
- Nornes, Markus Abé. *Japanese Documentary Film: The Meiji Era through Hiroshima*. Minneapolis: University of Minnesota Press, 2003.
- Nose Katsuo sensei tsuitô bunshû shuppan jikkô iinkai. *Kaisô no Nose Katsuo: Tsuitô bunshû*. Tokyo: Seibundô, 1981.
- Okamura Keiji. "Kyoto katei shôhi kumiai to Nakai Masakazu" in Okamura, *Hyôgen to shite no toshokan*. Tokyo: Seikyûsha, 1986.
- Ôyodo Shôichi. "Kagaku gijutsu shintaisei kakuritsu yôkô kara gijjutsuin setchi he," *Keiei ronshû* 51, no. 3, (March 2004).

- Ôyodo Shôichi. *Miyamoto Takenosuke to kagaku gijutsu gyôsei*. Tokyo: Tôkai daigaku shuppankai, 1989.
- Ôyodo Shôichi. *Gijutsu kanryô no seiji sankaku: Nihon no kagaku gijutsu gyôsei no makuaki*. Tokyo: Chuô Kôronsha, 1997.
- Patrick, Hugh and Larry Meissner, ed. *Japan's High Technology Industries: Lessons and Limitations of Industrial Policy*. Seattle: University of Washington Press, 1986.
- Pauer, Erich. "Japan's Technical Mobilization in the Second World War" in *Japan's War Economy*. Ed. Erich Pauer. London: Routledge, 1999.
- Pauer, Erich, ed. *Japan's War Economy*. London: Routledge, 1999.
- Pierre, Andrew J., et. al. *A High Technology Gap?: Europe, America, and Japan*. New York: Council on Foreign Relations, 1987.
- Pincus, Leslie. "A Salon for the Soul: Nakai Masakazu and the Hiroshima Culture Movement," *positions* 10, no. 1 (2002).
- Reinach Adolf. "On the Theory of Negative Judgment" in Barry Smith, ed., *Parts and Moments: Studies in Logic and Formal Ontology*. Munich: Philosophia Verlag, 1982.
- Ricco, John. *The Logic of the Lure*. Chicago: University of Chicago Press, 2002.
- Saguchi Kazurô, "The Historical Significance of the Industrial Patriotic Association: Labor Relations in the Total-War State" in *Total War and 'Modernization,'* ed., Yasushi Yamanouchi, J. Victor Koschmann, and Narita Ryuichi. Ithaca: Cornell University East Asia Program, 1998, 261-288.
- Saitô Raitarô. "'Doyôbi' ni tsuite" ("Regarding 'Saturday'") in *Doyôbisha. Doyôbi Fukkokuban*. Tokyo: Sanichi Shobô, 1974.
- Sakai, Naoki. "Ethnicity and Species: On the Philosophy of the Multi-ethnic State in Japanese Imperialism" *Radical Philosophy* 95 (1999).
- Sakai, Naoki. "Subject and Substratum: On Japanese imperial nationalism," *Cultural Studies* 14, no. 3/4 (2000).

- Sakai, Naoki. *Translation and Subjectivity: On Japan and Cultural Nationalism*, Minneapolis: University of Minnesota Press.
- Sakai, Naoki. "You Asians": On the Historical Role of the West and Asia Binary" *The South Atlantic Quarterly* 99, no. 4 (2000).
- Samuels, Richard J. *"Rich Nation, Strong Army": National Security and the Technological Transformation of Japan*. Ithaca, NY: Cornell University Press, 1994.
- Satô Shinichi. *Nakai Masakazu: 'Toshokan' no ronrigaku*. Tokyo: Kindai bungeisha, 1992.
- Sawai Minoru. "Kagaku gijutsushintaisei kôsô no tenkai to gijutsuin no tanjô," *Osaka daigaku keizaigaku* 41, no. 3., (Dec 1994).
- Sawai Minoru. "Taiheiyo sensô ki kagaku gijutsu seisaku no hito koma: kagaku gijutsu shingikai no setchi to sono katsudô," *Osaka daigaku keizaigaku* 4, no. 2, (Oct 1994).
- Shima Akira. *Gijutsuron ronsô*. Kyoto: Mineruba shobô, 1977.
- Spengler Oswald. *Man and Technics: A Contribution to a Philosophy of Life*. New York: A.A. Knopf, 1963.
- Steinhoff, Patricia. *Tenkô: Ideology and Societal Integration in Prewar Japan*. New York: Garland, 1991.
- Sugiyama, Mitsunobu. "The World Conception of Japanese Social Science: The Kôza Faction, the Ôtsuka School, and the Uno School of Economics" in *New Asian Marxisms*, ed. Tani Barlow (Durham: Duke University Press, 2002).
- Takashima Naoyuki. *Nakai Masakazu to sono jidai*. Tokyo: Seikyûsha, 2000.
- Takeuchi Shigeaki. *Kattatsu na gûsha: sôgôsei no naka no shutai*. Tokyo: Renga shobô, 1980.
- Tatsuno, Sheridan M. *Created in Japan: From Imitators to World-Class Innovators*. New York: Harper & Row, 1990.

- Tatsuno, Sheridan M. *The Technopolis Strategy: Japan, High Technology, and the Control of the Twenty-first Century*. New York: Prentice Hall Press, 1986.
- Tsurumi Shunsuke. *An Intellectual History of Modern Japan, 1931-1945*. London: KPI, 1986.
- Tsurumi Shunsuke. "Sengo kara no hyôka" in Nakai Masakazu, *Bi to shûdan no ronri*, ed. Kuno Osamu. Tokyo: Chûo kôronsha, 1962.
- Tsutsui, William M. *Manufacturing Ideology: Scientific Management in Twentieth-century Japan*. Princeton: Princeton University Press, 1998.
- Utsumi Kôichirô, Yamazaki Toshio, and Kobayashi Tango, ed. *Aikawa Haruki shôden*. Tokyo: Yanami sada, 1979.
- Vertov, Dziga. "From Kino-Eye to Radio-Eye" in Vertov, Dziga, *Kino-Eye: The Writings of Dziga Vertov*, tr. Kevin O'Brien, ed. Annette Michelson. Berkeley and Los Angeles: University of California Press, 1984.
- Watanabe Tôru. *Kyoto chihô rôdô undôshi*. Kyoto: Kyoto Chihô Rôdô Undôshi Hensankai, 1959.
- Weber, Max. *The Protestant Ethic and the Spirit of Capitalism*, tr. Talcott Parsons. London: Routledge, 1992.
- Windelband, Wilhelm. *Beiträge zur lehre vom negativen urteilen*. Tübingen: J.C.B. Mohr, 1921.
- Yamamoto Osamu. *Nihon seikatsu kyôdô kumiai undôshi*. Tokyo: Nihon Hyôronsha, 1982.
- Yamamoto Osamu. *Shôwa kome yokose undô no kiroku*. Tokyo: Hakuseki shoten, 1976.
- Yasushi Yamanouchi, J. Victor Koschmann, and Narita Ryuichi, ed. *Total War and 'Modernization.'* Ithaca: Cornell University East Asia Program, 1998.
- Yamanouchi, Yasushi. "Total War and System Integration: A Methodological Introduction" in *Total War and 'Modernization,'* ed., Yasushi Yamanouchi, J. Victor Koschmann, and Narita Ryuichi. Ithaca: Cornell University East Asia Program, 1998.

Yamazaki Masako. *Kyoto jinbun gakuen seiritsu o meguru senchû sengô no bunka undô*. Tokyo: Kazuma shobô, 2002.

Yamazaki Toshio, “Sen kyûhyaku yonjyûnen igô” in Utsumi Kôichirô, Yamazaki Toshio, and Kobayashi Tango, ed. *Aikawa Haruki shôden*. Tokyo: Yanami sada, 1979.

Yang, Daqing. “The Technology of Japanese Imperialism: Telecommunications and Empire Building” (Ph.D. dissertation, Harvard University, 1996).

Yatsugi Kazuo. *Shôwa dôran shishi*, 3 vols. Tokyo: Keizai ôraisha, 1978.

Yoshida Masazumi, “Seikatsu ni taisuru yûki (zenpen) – Jûgo-nen sensô shoki Kyoto no shôhi seikatsu undô to zasshi ‘Bi Hihyô’ shûdan ni okeru ‘gakushû’ no ichi: ‘Nakai Masakazu-tachi to <Teikô no gakushû> o meguru shomondai’ (I)” *Kyoto daigaku shôgai kyôikugaku toshokan jôhôgaku kenkyû* 2, (March 2003).

Yoshida Masazumi. “Seishin no meiseki – ‘Sekai Bunka’ shûdan no teikô to gakushû: Nakai Masakazu tachi to <teikô no gakushû> o meguru shomondai (II)” *Kyoto daigaku shôgai kyôikugaku toshokan jôhôgaku kenkyû* 3 (March 2004), (March 2004).

Young, Louise. *Japan’s Total Empire: Manchuria and the Culture of Wartime Imperialism* (Berkeley: University of California Press, 1998).

Zimmerman, Michael. *Heidegger’s Confrontation with Modernity: Technology, Politics, Art*. Bloomington: Indiana University Press, 1990.