CHAPTER 1

Early Modern Japan and the Problem of "Drugs"

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In the year 1673, two Dutch vessels arrived in Nagasaki with a valuable cargo of a rare medicine that Europeans had popularized in Japan over the previous century. The use of *miira* or "mummy" against maladies of all sorts had spread quickly and peaked with the shipment of 648 pounds—the equivalent of some sixty human corpses—in the delivery of 1673.[1] As the renowned physician Ōtsuki Gentaku (1757–1827) later explained, the wondrous medicine was delivered from Egypt, where people of high status were embalmed in the distant past. "The corpses have lasted for a thousand and more years without decaying before they were dug up and became a wondrous medicine among humanity … With its medicinal properties, [mummy] consolidates the body and eases cramps, thus it must be deemed a good medicine."[2] Ingesting pulverized mummy as a panacea had been a widespread practice among European elites since the eleventh century, and by the late seventeenth century, even Japanese practitioners had grown so fond of the strange substance that surrogates of inferior quality flooded the market. One Kyoto pharmacist pointed out in 1681 that judicious selection was necessary since mummy of excellent quality, recognizable from the imprint of cloth used to wrap the corpses, competed with a fake product called "new delivery" mummy. The latter showed no traces of fabric, was often still moist, and actually consisted of horse meat.[3] Gentaku's advice was to look for that which "is entirely indigo-black with flesh in a condition as if smoked, light and refined in texture but not too dry. It is the abundant and fleshy which is of high quality."[4] As Michael Kinski has recognized, increasing commercialization brought about issues that called for regulation, and the embeddedness of the pharmaceutical trade in international networks of intellectual and commercial exchange made these issues a source of considerable political concern.

1 Kinski, "Mumie als Medizin," p. 2672; Kinski, "Materia Medica in Edo Period Japan," pp. 86–87.

2 Ōsuki Gentaku, *Rokumotsu shinshi*, vol. 2, p. 4.

3 Paraphrased in Kinski, "Materia Medica," p. 84; Kinski, "Mumie als Medizin," p. 2672. Mummified animals had previously been imported from China for medical use. Kinski therefore suggests that fetishization of the exotic and rare fueled the craze for imported mummies.

4 Ōsuki Gentaku, *Rokumotsu shinshi*, vol. 2, p. 5.

While consumers and physicians were worried about the degenerate quality of medical products flooding the market, the authorities were primarily interested in fighting the foreign trade deficit. During the reign of the reformist Tokugawa shogun, Yoshimune (r. 1716–45), well-known for his support of domestic pharmaceutical production, retail prices for imported mummy were fixed in order to curtail profit margins as the Dutch raised their prices.[5] Regulatory action was informed by mercantilist concerns and enforced by means of guild-like control over distribution networks, but commercial development and urbanization had set in motion greater transformations that would, by the mid-nineteenth century, bring about new ideas of health, behavior, and the relationship between the state and its subjects. Over the first century of Tokugawa rule, high urbanization rates and commercial growth engendered a culture of self-care. In fact, by Yoshimune's time, elite doctors such as Kaibara Ekiken (1630–1714) had disseminated a view of human health that emphasized the importance of work and individual discipline for the upkeep of circulation, an idea that has been related to the period's "industrious revolution."[6] Medical advisories in vernacular language circulated in growing numbers and popularized the ideal of disciplined lifestyles to support longevity. Centuries before moral education propagated the imperial government's ideas of hygiene and civil compliance in the Meiji period (1868–1912), public medical discourses had begun to politicize health, consumption, and personal behavior.[7]

It is hard to overstate the social impact of the sweeping institutional and intellectual reforms of the Meiji period. Yet, however encompassing the impact of core concepts of the Japanese enlightenment—such as "civil rights," "freedom," and "the economy," popularized in the journal *Meiroku zasshi* in the 1870s—their introduction was part of an ongoing negotiation of social theories that was less marked by revolutionary turnarounds than by processes of judicious selection, thorough reconfiguration, and political incorporation. As Sebastian Conrad argues, the history of the Enlightenment is "a history not so much of its diffusion as of its permanent reinvention. Groups and social milieus that pressed for social and cultural change invoked the authority of the Enlightenment while fusing it with other traditions."[8] To understand the culturally specific careers of allegedly universal concepts conveyed by modern

5 Kinski, "Materia Medica," p. 88. Federico Marcon's more recent *Knowledge of Nature and the Nature of Knowledge in Early Modern Japan* has shown that Shogun Yoshimune (r. 1716–45), embracing Arai Hakuseki's advice, also applied mercantilist principles in sponsoring domestic medical production to substitute for imports. Marcon, *Knowledge of Nature*, pp. 117–120.

6 Kuriyama, "The Historical Origins of 'Katakori'," pp. 134–136.

7 Niehaus, "They Should be Called Gluttons," p. 21.

8 Conrad, "Enlightenment in Global History," p. 1026.

terminology requires a grasp of the institutional and intellectual landscape from which these ideas sprouted.

This chapter argues that three tensions were crucial in the way Japanese state institutions came to understand substance regulation between the seventeenth and nineteenth centuries. First, the growing contradiction between mercantilist thought and commercial development inspired conservative government consultants to encourage moral economies through sumptuary laws. Second, in the context of urban development and commercialization, individual health cultivation was promoted in print media and monetized through new sales models of pharmaceutical businesses. Lastly, by the mid-nineteenth century, foreign challenges turned public health into a geopolitical concern, as epitomized by anxious Japanese observers of China's opium economy in the 1830s. By the 1870s and 1880s, the perception of an opium crisis in China and the successful completion of a shogunal vaccination campaign among the Ainu population of the northern frontier had set in motion a fundamental reconfiguration of the state-subject relationship around a politicization of public health.

1 The Invention of Drugs in Japan

The emergence of the normative categories at work in modern drug control is commonly associated with the spread of a medical modernity rooted in the European Enlightenment. Toby Seddon has identified classical liberalism as an ideological axis behind the construction of drug *dependence*, contrasted against the *freedom* of the autonomous individual. Addiction is per se an indispensable "constructed other" which modern societies use to define the socially acceptable.[9] Congruently, economic transformations in seventeenth- and eighteenth-century Japan inspired medical theories that emphasized self-optimization by moralizing consumption and embedding individual health into the greater context of socioeconomic life.

In Japan, foundational terminology for modern medical discourses was coined in the Meiji period. The ideological and institutional reforms of the era were radical and all-encompassing, a fact that is underpinned by the formation of entire new disciplines in science and technology, as well as by new ideas about the duties of state and subject. By the time Adam Smith was translated into Japanese in 1882, Fukuzawa Yukichi's (1834–1901) treatise *Conditions in the West* (1866–70) had already adapted powerful ideas such as "freedom"

9 Seddon, *A History of Drugs*, pp. 8–10.

for the Japanese language.[10] Fukuzawa was also an important early adopter of newly coined terms such as *kenkō*, or "health" in its modern sense, and *eisei*, "hygiene"—foundational concepts for subsequent debates on public health.

Yet, the new categories constructed around drugs and consumption were no simple transplants of foreign ideas. The term *eisei*, literally "guarding life," borrowed from a phrase coined by the ancient Chinese Daoist Zhuangzi, was repurposed to translate the German term *Gesundheitspflege* in the drafting process of Japan's Sanitary Code of 1874.[11] The term, which soon became tantamount to "hygiene," was popularized through health advisories and advertisements for patent medicines, underlining the word's implication of individual agency.[12] *Eisei* resonated with the word *yōjō* or "life cultivation," the common term for the equivalent of individual "health" in the early modern period, implying a similar prompt for proactive care. *Yōjō* was in fact compatible with novel theories, as the popular handbook for everyday medicine *Keimō yōjōkun* (Lessons in enlightened life cultivation) of 1872 underlines.[13]

A semantic disconnect between Japanese and English persists today in the way drug abuse is described. The common Japanese term used to translate "addiction," *chūdoku*, is also used to express notions of "poisoning" and "intoxication."[14] The word, in use since the Heian period (794–1185), conflates various degrees of pathologization in the vernacular.[15] Likewise, a *kuse*, or "bad habit," a concept documented since the tenth century, describes a broad spectrum of behavioral vices—indulgence, excess, complexes—that cause health complications.[16] Medical terms such as *izonshō* for "physical dependence," or *mansei chūdoku* for "chronic addiction," which imply similar dichotomies as

10 *Sekai daihyakka jiten*, keyword "Adam Smith," in: Japan Knowledge (henceforth JK). Daniel Botsman has investigated the emergence of these concepts in Japan through the discovery of trans-Pacific human trafficking by way of Japan. Botsman finds that despite the absence of a clear terminology to juxtapose "slavery" and "freedom" in the Japanese vocabulary at the time, intellectuals were quick to appreciate these categories to fight human trafficking and to call for civil rights in the 1870s. Botsman, "Freedom without Slavery?"

11 The term had appeared just two years earlier in Koreyoshi Ogata's *Eisei shinron* (New theses on hygiene). Ozaki, "Sensai Nagayo," pp. 61, 66.

12 Burns, "Constructing the National Body," p. 17.

13 Toki Yorinori, *Keimō yōjōkun*.

14 *Nihon kokugo daijiten*, keyword "chūdoku," in JK.

15 E.g. the *Sekai daihyakka jiten* notes that "[types of intoxication] can be categorized based on the substances causing it, into 'drug intoxication' (*yakubutsu chūdoku*), 'industrial drug intoxication' (*kōgyō yakuhin chūdoku*), 'insecticide intoxication' (*nōyaku chūdoku*), 'heavy metal intoxication' (*jūkinzoku chūdoku*), 'gas intoxication' (*gasu chūdoku*), etc." *Sekai hyakka daijiten*, keyword "chūdoku," in JK.

16 *Nihon kokugo daijiten*, keyword "kuse," in: JK.

their English correspondents, clearly belong to the technical register. In comparison, the vernacular *kuse* and *chūdoku* seem euphemistic, describing mere individual proclivities. Likewise, the contrast between licit and illicit substances today makes "medicine" (*kusuri*) and "drugs" (*yakubutsu*) a semantic pair, but as in *chūdoku* and *kuse*, the categories remain utterly fluid in the vernacular language.

Moralizing dichotomies of "sobriety" and "drunkenness," "intoxication" and "addiction," "poisoning" and "disease" emerge from a specific cultural context that norms ideas about health, healthy behavior, and detrimental habits. In the interwar period, for example, Japanese physicians designed specific pathological categories for colonial subjects, such as the word "retreater" (*inja* 隠者), which was used to describe smokers in Chinese and Taiwanese opium "dens."[17] As Miriam Kingsberg Kadia's contribution to this volume argues, racial categories were actively reinforced through a discursive separation of "abstinent Japanese" from their colonial subjects.[18] The implicit projection of such categories onto regulatory institutions or onto ritual and religious substance use in specific cultural settings based on a modern understanding of health can lead to distorted representations of the motivations behind early modern consumption practices. What is labeled an illegal "drug" was not necessarily problematized just a brief period earlier, and what is consumed habitually in one place may be subject to severe punishment elsewhere. As Andrew Sherratt puts it, "the very word 'drug' is an obstacle, and it is a theme" around which studies of consumption and regulation cluster.[19] In this context, it is important to remember that "modernity" has no geographically defined origin or global telos, but that it is just as much a peculiar anomality as any episode of history.[20] Accordingly, identifying the multipolar origins of medical modernity necessitates a tectonic view of the institutional and practical landscape from which the discursive structures of the Meiji period emerged.

17 I thank Jesús Solís for pointing out this fact.

18 Also see Kingsberg, *Moral Nation*, pp. 14–15, 26–27. Kingsberg's work shows how opium became a symbol of Oriental backwardness and purging Japan became an act of "leaving Asia." In interwar propaganda, Chinese immigrants were represented as disease agents spreading narcotic dependence and threatening the productivity of Japanese subjects.

19 Goodman, Lovejoy, and Sherratt, *Consuming Habits*, p. ii.

20 For a recent example of such classical, progress-centered histories of pharmaceuticals, see Okazaki, "The Pharmaceutical History of Japan." I use the term "early modern" as a tool for transnational analysis rather than to imply a teleology. Some critics like Jack Goldstone reject "early modernity" on principle, but Japan's embeddedness in global networks of trade, knowledge, and biological exchange at the time underlines the term's utility for global historical purposes, as Kären Wigen has argued. Goldstone, "The Problem of the 'Early Modern' World," pp. 249, 262; Wigen, "Mapping Early Modernity," pp. 1–13.

2 Commerce, Mercantilism, and Globalization

When Tokugawa Ieyasu attained control over the sixty-odd provinces of Japan following the Battle of Sekigahara in 1600, he moved his headquarters to Edo Bay, at the entrance to the fertile Kanto plain of eastern Honshu. Edo, initially a small settlement of farmers and fisherfolk, rapidly grew into a major urban center that reached a million inhabitants in just over a century.[21] Representing the apex of a fractured but robust patchwork of political power, the city developed a bustling economy, especially after the introduction of the system of alternate attendance (*sankin kōtai*) in 1635 that required each daimyo to maintain a permanent embassy in the shogunal capital. Along the densely traveled highways that connected the city to the most remote fiefdoms, people, goods, and cash circulated at an accelerating pace while commercial networks expanded all across the archipelago.

Commercial development and social dynamism increasingly challenged the ideals of social order celebrated by certain shogunal advisors. In his *Discourse on Government*, Ogyū Sorai (1666–1728) criticized the decay of status hierarchies and called for the restoration of the physical vigor and fiscal well-being of the samurai by discouraging their alleged urban indolence, extravagance, and financial dependence on loans from merchants.[22] The perceived alienation of humans from their natural environment called for new concepts to describe the workings of the economy, society, and the microcosmos of the human body.

The bustling economy of Japan's early modern metropoles created a nationwide network of commercial distribution for medical products, advertisements, and advisories that heightened the awareness of health. Moralizing views of individual responsibility for health as embedded in a social context spread accordingly. The general awareness of health and healthy behavior finds expression in the proliferation of medical professionals: by 1820, Michael Kinski counts 2,500 physicians active in the city of Edo (a ratio of approximately one per 400 to 500 inhabitants).[23] More than a hundred known printed publications between the seventeenth and nineteenth centuries boiled down various medical theories for the lay reader and gave advice on ever-changing strategies to foster health and prolong life.[24] By the nineteenth century, the high degree of urbanization and commercialization in Japan had given rise

21 *Nihon daihyakka zensho*, keyword "Edo," in JK.

22 Totman, *Early Modern Japan*, p. 288.

23 Kinski, "Materia Medica," p. 56.

24 Katase, "Shintai to shokubutsu," p. 51.

to a sense of individual agency in health matters that emphasized balanced consumption and avoidance of excessive behavior.

Despite a policy of limited—or rather, focused—diplomatic relations that has long been represented as "national seclusion," early modern Japan was intimately entangled with the outside world through trade, intellectual transfer, and biological exchange. As the producer of one third of the world's silver output in the seventeenth century, Japan wielded significant commercial power that translated into diplomatic and geopolitical agency.[25] Medical markets absorbed foreign-made products, growing increasingly dependent on global supply networks. Mummy, mermaid, and various other sorts of European quackeries were introduced to Japan, resulting in an alarming trade deficit when the silver mines began to decline in the 1660s.[26] Daniel Trambaiolo points out that in 1714, nearly four-fifths of all medicine shipped into Osaka was of foreign origin.[27] The reliance of Japanese physicians on imported ginseng caused particular fiscal concern. Traded at a wholesale price of one golden *ryō* for a dose of three to five grams, the import volume of ginseng reached between 1,200 and 3,000 kilograms annually.[28] The root, to which were attributed powerful medical properties, was chiefly cultivated in Korea and northeastern China.[29] By the time Shogun Yoshimune ascended to Edo Castle in 1716, the trade deficit due to medical imports had already become a pressing issue.

The efforts under Yoshimune to domesticate the medical root were a flagship project of state-funded science, as Federico Marcon has shown.[30] Shigehisa Kuriyama further found that the "ginseng fever" of the early eighteenth century was a global phenomenon that led to the simultaneous exploration of ginseng cultivation in Asia and North America. This new, globalized ginseng trade reached a considerable scale: the appearance of "Cantonese" ginseng—that is, North American ginseng traded via Canton—at Nagasaki in 1764 resulted in the burning of 450 *kin* based on quality concerns.[31] One vernacular medical advisory published around that time lamented that "these days, doctors with no knowledge believe that if they just prescribe ginseng, any disease will

25 Hang, "The Shogun's Chinese Partners," p. 112.
26 Ibid., p. 113. On mermaids in early modern medicine, see Ōsuki Gentaku, *Rokumotsu shinshi*, vol. 2, pp. 22–35.
27 Trambaiolo, "Native and Foreign in Tokugawa Medicine," p. 310.
28 Estimates of ginseng import volumes vary between Marcon, *Knowledge of Nature*, p. 123, and Kuriyama, "The Geography of Ginseng," p. 65.
29 Marcon, *Knowledge of Nature*, pp. 123–124.
30 Ibid.
31 Kuriyama, "The Geography of Ginseng," 67. On the seizure of contraband "Canton ginseng," see Hellyer, *Defining Engagement*, pp. 74–75.

heal … Since they receive their pay for just applying a little ginseng, lots of ginseng and lots of money are circulating in the world."[32] The government's fiscal concerns over foreign-made medicine overlapped with moral objections to increasingly commercialized medical practices.

Mercantile policies up until the 1860s were framed around the concept of *kokueki*, a slogan that emerged in the early eighteenth century from the economic competition among Japanese domains, and that is commonly translated as "domainal benefit." The idea of *kokueki* was coined in discourses centered on individual domains rather than on a pan-Japanese economic community, as Luke Roberts has argued, but from the perspective of the shogunate, which managed monopolies on foreign trade, the same principles applied to international trade.[33] This system stood in contrast but not in contradiction to the moral economy of sumptuary laws that aimed to mitigate social change brought about by economic transformations. Issued in waves and reinforced periodically, by 1700 sumptuary laws had become a common policy tool to impose frugality upon wealthy merchants and townspeople. Many of the sumptuary laws issued under Shogun Tsunayoshi (r. 1680–1709) were concerned with clothing and other displays of extravagance, but others, again, were drafted to mandate appropriate, status-specific nutrition: farmers should eat miscellaneous grains rather than rice, and refrain from drinking tea, smoking tobacco, or engaging in sake brewing (a proscription first codified in the 1640s).[34]

Policies that targeted consumer behavior were mostly assertions of ideological principles rather than effective tools of economic regulation. For example, Shimazu Shigehide, the lord of Satsuma domain in the late eighteenth century, forbade the consumption of soup made with more than one type of vegetable, citing moralist ideals of diligence and frugality.[35] Such conservatism time and again resulted in a series of misguided and largely unsuccessful attempts to stabilize the economy, as the famines of the Tenpō era (1830–44) show.[36] For much of the early modern period, the suppression of consumerism and extravagance was primarily an attempt to enforce the ideal of a static sociopolitical order, as opposed to the fluidity and mobility of an increasingly commercial society.

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32 Funtokusai, *Isha dangi*, vol. 1, pp. 7–8.

33 Luke Roberts compares the economic domain-nationalism practiced by some daimyo of Japan to the mercantilist practices of early modern Europe, thereby emphasizing the autonomy and agency of individual domains within the economic system of "Japan." Roberts, *Mercantilism*, pp. 2–3.

34 Shively, "Sumptuary Regulation and Status in Early Tokugawa Japan," pp. 127–128, 154.

35 Marcon, "Satō Nobuhiro and the Political Economy of Natural History," p. 268.

36 Crawcour, "Economic Change in the Nineteenth Century," pp. 587–600.

3 Taxation, Guilds, and Monopolies

New commodities that entered Japan over the early modern period created new markets and inspired new market regulations. Tobacco is an illustrative example of a New World plant around which regulation, monopolization, and taxation evolved in the early seventeenth century. The plant arrived in Japan in the late sixteenth century, and spread rapidly throughout the archipelago as it could be grown as far north as the Mito domain in northeastern Honshu.[37] At the silver mine of Inzan in today's Akita Prefecture, where laborers smoked the herb in particularly great quantities, a special tax of one tenth of the value of the tobacco was levied by toll stations at the entrance to the mining town.[38] As Kikuma Toshio has discussed, the tobacco trade became a licensed business around specific centers of consumption—chiefly mining towns—and trade guilds were subject to sales taxes. These taxes were collected rigorously, with a seal stamped on every cleared tobacco leaf.[39] The culture of tobacco smoking spread particularly in the context of the kabuki theater, seen as a place of prostitution and hedonism. In the eyes of the shogunate, kabuki and its associated vices represented a source of unrest that upset the social order. Attempts to suppress or marginalize the theater included attacks on the custom of smoking in public.[40] In practice, however, smoking became fashionable among the rural population, and while tobacco cultivation remained proscribed in tax crop fields, some domains established monopolies on its production and trade.[41] Satsuma domain in southwestern Japan was among the most prolific producers and even became a tobacco exporter, domestically and to China, by way of the Ryukyus.[42] Though bans on tobacco smoking were informed by ideas of propriety and aimed to avoid an agrarian shift that could reduce the rice output, state institutions nonetheless made tobacco a source of fiscal revenue.

37 Suzuki and Miwa, *The First Century of Japan Tobacco*, p. 11. The exact dates and route of introduction are not documented, and there is some debate as to whether tobacco was introduced as a diplomatic gift from Europeans or through trade with Southeast Asia. Hase, *Okinawa tabako no rekishi*, p. 3. The fact that tobacco was not very widely known beyond Europe at the time of its first mention in Japan makes a direct introduction from Europe more likely.

38 Kikuma, *Tabako no Nihonshi*, pp. 43–49.

39 Ibid., p. 46.

40 Suzuki and Miwa, *The First Century of Japan Tobacco*, pp. 7–8.

41 Ibid., p. 11.

42 Hase, *Okinawa tabako no rekishi*, pp. 26–27, 33. Hase cites at least one shipment in 1839 that included 1580 pounds of tobacco bound for China by way of the Ryukyu Kingdom.

Burgeoning urban markets and the inventive energy of shrewd entrepreneurs also grew the health business to a scale of critical relevance. Attempts had already been made in 1657 to suppress the circulation of 35 forged, ineffective, or even harmful types of medicine.[43] By the turn of the eighteenth century, however, a surge in surrogates of questionable quality, like the forged mummy introduced in the beginning of this chapter, flooded the markets. In response, Yoshimune followed a two-pronged strategy: encouraging botanical research with the goal of expanding domestic medical production, while implementing an exclusive system of licensed trade to ensure the quality of medical products.[44]

The trend towards regulating the pharmaceutical trade was underway by 1715, when twenty-four wholesale pharmacists were licensed as a drug retail guild (*yakushu ton'ya*) in Edo's Motomachi. Seven years later, 124 pharmacies in Osaka's Doshō-machi district were subsumed into a guild of wholesale pharmacists (*yakushu nakagai nakama*).[45] In the same year, 1722, the shogunate established the Office for Drug Inspection (*Wayakushu aratame kaisho*), an institution entrusted with ensuring the quality of medical products traded in the five major cities controlled by the shogunate.[46] The institution was guided by a leading representative of Yoshimune's scholarly team: Niwa Shōhaku (1691–1756), who authored the most extensive encyclopedia of Japanese flora and fauna available at the time.[47]

In principle, the guild offices consisted of representatives of pharmaceutical businesses that kept each other in check. In Osaka, for example, the position rotated on a daily basis among forty groups of three to four local wholesale pharmacists.[48] These offices provided licensed members with additional influence, keeping out petty competitors and ensuring mutual surveillance within the guild. The office in Osaka was the most influential not only because of the local guild's size, but also because most foreign medical products were shipped

43 Narita, "Wa-ahen no seizō," p. 187.

44 Marcon, *Knowledge of Nature*, pp. 115–119.

45 *Yakugaku-shi jiten*, p. 8. In early modern Japan, "guilds" (*kabu nakama*) held regional monopolies among various businesses that were approved and taxed by the shogunate and feudal lords. *Yakugaku-shi jiten*, p. 131.

46 In Japanese, the office is also known by its short name *Wayaku aratame-sho*. According to the *Yakugaku-shi jiten* (Encyclopedia of pharmaceutical history), medical products traded in any province of Japan required approval from one of the branches of the Bureau of Medicine Inspection in Edo, Sunpu, Kyoto, Osaka, or Sakai.

47 Matsushima, "Honzōgakusha Niwa Shōhaku," p. 45.

48 *Kokushi daijiten*, keyword "Wayaku aratamesho," in JK. Pharmaceutical products shipped into and out of the cities of Edo and Kyoto were subject to scrutiny by local officials, even if they had already been approved by another city's guild.

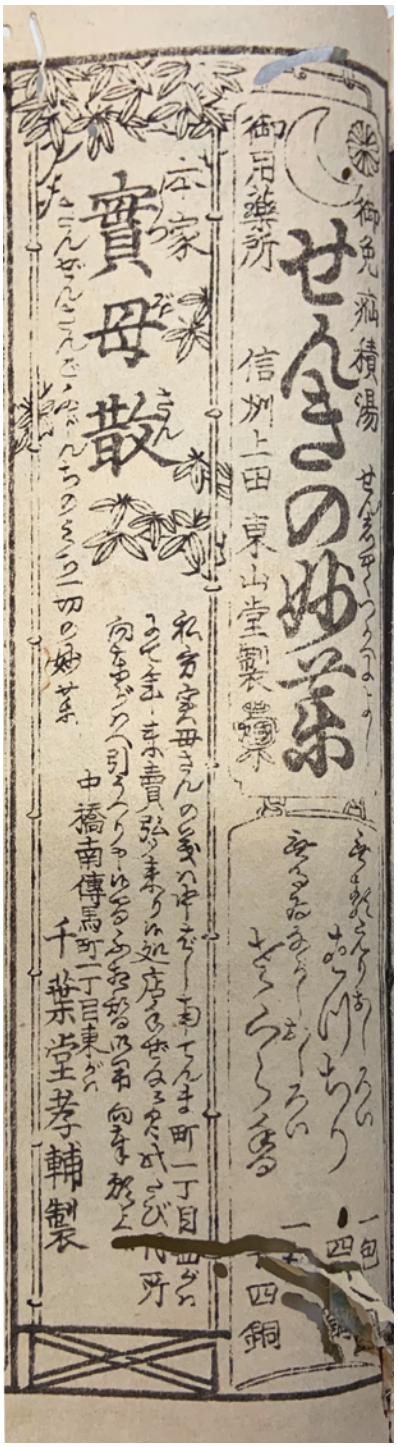

FIGURE 1.1
An advertisement for a "wondrous medicine" against stomachache featured on the last page of a popular novel from 1862. The attribute *goyō yakusho* indicates that the firm supplied to state institutions, and the prefix *gomen* indicates that it obtained its license not for payment, but for performing government duties such as quality inspection. To the left of it is an advertisement for a medicine for menstrual pain by a firm that does not claim these credentials for the quality of its products. *Warabeuta myōmyō guruma*, by Ryūtei Tanehiko et al., publ. 1862, episode 16, vol. 2, p. 21. Author's collection.

through Osaka before their distribution within Japan.[49] The Osaka guild enjoyed exclusive authority over the local trade in medicine, and held a shogunal seal without which no drug sales were permitted.[50] While the shogunate based its market interference on guild monopolies and thus accelerated the accumulation of capital and power among a few influential merchants, its policies also enhanced its own control over increasingly complex markets.[51] The Office for Drug Inspection was in charge of enforcing a shogunal edict called "Six Articles on Japanese Drug Varieties" (*Wayakushu rokkajō*) that indexed 113 substances subject to quality inspection and divided Japanese-made medicines into six categories, including "forged medicine that is now forbidden," "previously tolerated forged medicine that is now forbidden," and "wrongly named medicine that needs to be renamed."[52] While guild formation and self-controlling mechanisms may have done little to improve medical know-how per se, the system helped suppress charlatans and contributed to the overarching task of fighting a trade deficit by incentivizing domestic pharmaceutical production.

4 Commerce and Medical Moralism

Shogunal patronage for research into domestic alternatives to imported medical products boosted the field of materia medica or *honzōgaku*. The project of "inventorying nature," to borrow Federico Marcon's phrase, structured flora and fauna in terms of public utility, effectively substituting imported commodities and enhancing the archipelago's medical autarky.[53] This process coincided with a period of intellectual emancipation that became engraved in the emergence of nativist ideologies. In the field of medicine, intellectual emancipation from Chinese doctrines led to a shift towards nativist medical practices that included medicine tailored to Japanese bodies and suited to the Japanese climate.[54] Kaibara Ekiken's *Yamato honzō* (Materia medica of Yamato) of 1709 emphasized empiricism over textual learning and laid the

49 *Yakugaku-shi jiten*, pp. 131–133.

50 Ozaki, "Sensai Nagayo," p. 72.

51 *Yakugaku-shi jiten*, p. 9. The competition between the status groups of samurai officials and increasingly wealthy merchants had, by Yoshimune's time, already become a major source of concern for the shogunate. While his mercantilist policies enhanced the regime's stability by increasing agrarian output, they may have frustrated some of his Confucianist advisors.

52 *Yakugaku-shi jiten*, pp. 9, 144–146; Narita, "Wa-ahen no seizō," p. 184. Citation in *Yakugaku-shi jiten*, p. 146.

53 Marcon, *Knowledge of Nature*, p. 125; Marcon, "Inventorying Nature."

54 Trambaiolo, "Native and Foreign in Tokugawa Medicine," p. 299.

basis for his pathbreaking *Yōjōkun* (Lessons in life cultivation), published in 1712. According to Ekiken, Japanese bodies were weaker than those of the Chinese; accordingly, medicine had to be prescribed in lower doses and to be made from more suitable substances.[55] The quest for allegedly ancient formulas from China (*kohō*) and restored native formulas (*wahō* or *kōkoku ihō*) was taken up by physicians who were influenced by the emerging nativist thought; the prominent nativist thinker Motoori Norinaga (1730–1801) was himself, in fact, a practicing physician.[56] The preliminary research that enabled this shift to domestic medicine culminated with Niwa Shōhaku's massive *Shobutsu ruisan*, a botanical encyclopedia compiled by the order of Shogun Yoshimune that grew to 638 volumes over the 1730s.[57] This ongoing emancipation from Chinese learning was a creative process that brought about new conceptual approaches to the body and health.

Early modern medicine in Japan was never separate from the study of the human body's social and natural environment.[58] In the early days of the Tokugawa shogunate, physician Taku An (1573–1645) recognized that "humans are a microcosmos, a miniature of heaven and earth, like a small bowl contained in a larger bowl. Though different in size, their shapes are the same. Just like turning the outer bowl moves the inner one, so too, changes in the cosmos affect the small human body."[59] The body was seen as a model of the cosmos, consisting of five elements and moved by the flux of *ki*, invisible and eternally moving. Polymath Shiba Kōkan (1747–1818) later used *ki* to explain the Aristotelian element of *ether*, whose celestial flow moves the entire firmament.[60]

By Ekiken's time, in the early eighteenth century, the increasingly apparent disconnect between the urban body and its natural environment seemed

55 Ibid., pp. 309–310. In fact, the eighteenth century witnessed the creation of new syncretic forms of Chinese medicine deemed more suitable for Japanese bodies, that, by coincidence or not, relied on fewer imported substances. *Yakugaku-shi jiten*, p. 10.

56 Gardner Nakamura, *Practical Pursuits*, p. 12; Trambaiolo, "Native and Foreign in Tokugawa Medicine," pp. 300–305.

57 Marcon, "Inventorying Nature," p. 192.

58 Federico Marcon observes a fusion towards the end of the Tokugawa period of utilitarian *honzō* botanics and the emerging *keizaigaku,* the field of "ordering the realm and saving the people." The term would later come to be used for "economics" in the modern period. Marcon, *Honzōgaku after Seibutsugaku*, p. 150.

59 Cit. in Katase, "Ki o meguru shintai," p. 49.

60 Shiba Kōkan, *Oranda tensetsu*, pp. 10–11. Matteo Ricci, the renowned Jesuit active at the Ming court around 1600, saw the concept of a transcendental "energy" (Ch. *qi*) as a factor inhibiting the acceptance of Christian monotheism in China. Rogaski, "Air/Qi Connections and China's Smog Crisis," p. 59.

to necessitate conscious adjustment of lifestyles to prevent blockages of *ki* and, subsequently, disease.[61] One central innovation in medical thought at the time of Kaibara Ekiken was the quest for the root of disease not primarily in an imbalance of *yin* and *yang*, or the five phases, as was common in Chinese teachings, but in the congestion of various flows of vital *ki*.[62] *Ki* was a collective category of transcendental energies such as pathogenic *ki*, reproductive *ki*, and spiritual *ki*, that permeated the body and affected its functions.[63] Cultivation of health—specifically, ensuring the proper circulation of *ki* through a measured lifestyle—became seen as the central condition for longevity. As Shigehisa Kuriyama notes, Ekiken rejected the idea that a hermit life in retreat was more salubrious than exhausting labor. As he wrote in his *Lessons in Life Cultivation*: "If one constantly makes the body work, then the blood and *ki* will circulate, and digested food will not stagnate: this is the crux of the cultivation of life."[64] Ekiken explained his concepts of life cultivation or *yōjō*—often translated simply as "health," as explained before—with the help of metaphors that compared the human body to plants and fields that, subject to seasonal change, needed constant care to prevent withering.[65]

For Ekiken, disease was chiefly caused by "two harms": loss of the vital energy *ki*, and congestion of its circulation within the body.[66] In *Yōjōkun*, he explains the issue as follows: "The human vital *ki* (*genki*) is the same *ki* that breathes life into the myriad things of the world. This is the base component of the human body. Human life is impossible without the flowing *ki*. After their birth, people depend on drink and food, dwellings, and clothing to cultivate their vital *ki* and to stay alive."[67] In this reading, health maintenance was primarily a matter of tempering one's intrinsic desires. As Andreas Niehaus has shown, following a healthy lifestyle was not simply a question of individual choice, but part of every person's natural duty *vis à vis* family and the state. "When one has no self-control over one's desires and latches onto pleasures with greedy abandon," Ekiken affirmed, "one will exceed the given limits, damage one's body, and therefore show a lack of common decency."[68] The very awareness of a healthy lifestyle made the "cultivation of life" a question of moral choice.

The moral economy of health as propagated by Ekiken came at a time when the increased availability of cure-all medications seemed to offer handy

61 Katase, "Shintai to shokubutsu," pp. 55–56.
62 Kuriyama, "Historical Origins," p. 131.
63 Niehaus, "They Should Be Called Gluttons," pp. 23–24.
64 Cit. in Kuriyama, "Historical Origins," p. 135.
65 Katase, "Shintai to shokubutsu," pp. 55–57.
66 Cit. in Katase, "Ki o meguru shintai," p. 47.
67 Cit. in ibid., p. 48.
68 Cit. in Niehaus, "They Should Be Called Gluttons," p. 44.

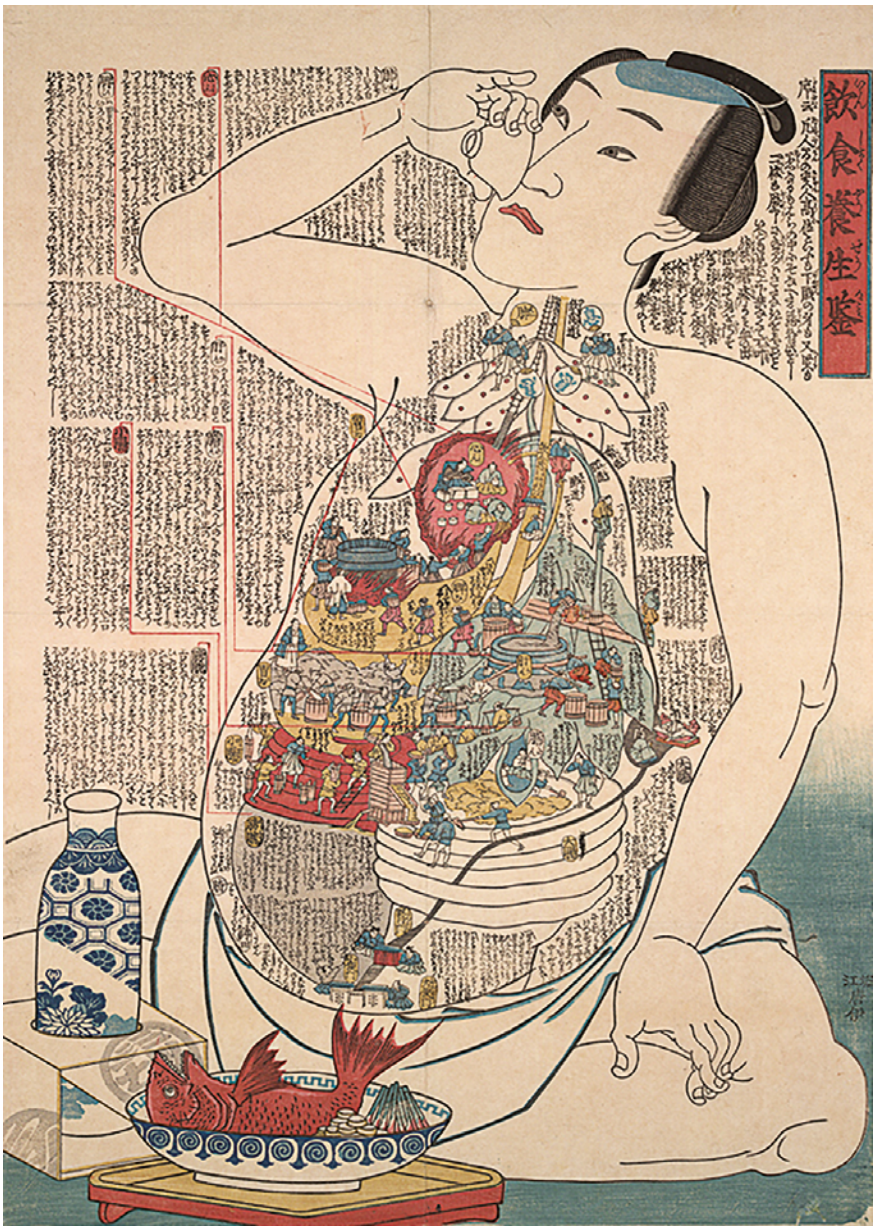

FIGURE 1.2 The mirror of health: a nineteenth-century graphical representation of the human body's inner life. Inshoku yōjō kagami 飲食養生鑑 [Mirror of Healthy Consumption]. International Research Center for Japanese Studies (Nichibunken, Kyoto), acc. no. 00215361.

alternatives to the tempered lifestyle recommended by physicians. Ekiken's calls can therefore be read as a response to the commercialization of the health business around so-called "patent medicines." A well-known example of the rural origins of pharmaceutical capitalism in Japan is the nationwide network of the Toyama medicine peddlers, a domainal industry propagated under the premises of domain mercantilism. As Timothy Yang describes in more detail in this volume, the medicine trade became a strategic industry that daimyo Maeda Masatoshi (1649–1706) first advertised proactively in Edo, while at the same time regulating production standards within the guild.[69] With bestsellers such as a panacea called *hangontan* or "bring the dead back to life pill," pharmaceuticals came to be the chief export of Toyama domain, and competed as a domainal guild against the industries of other domains. As of the mid-nineteenth century, some 4,500 traveling merchants were active across the archipelago selling medical products from Toyama. The domain's diplomatic support was essential to gaining market access throughout Japan. The domain negotiated for privileges by offering mutual market access, transportation services, and monetary donations to target domains. Besides conventional home soliciting, traveling merchants developed innovative business practices such as "use first, pay later" (*sen'yō kōri*) contracts. Commonly, a home pharmacy box was left at customers' homes and only used doses were charged upon the solicitors' next visit.[70] The business practices that emerged from the Toyama medicine trade made the home pharmacy a common object in eighteenth-century households.

It may appear contradictory that Ekiken's ideas of responsibility for personal health took aim at the consumerist lifestyle of affluent urbanites, even though commercial development created the channels necessary for the wide distribution of his theses in print, and a culture receptive to the precept of individual responsibility. The *Lessons in Life Cultivation*, published in widely understandable language, were reiterated by commercial advisories on healthy lifestyles and propagated in advertisements alongside all sorts of medications. Illustrated and sometimes spiced with humoristic narratives, these publications circulated among a wide readership along nationwide trade networks.[71] Commercial development in print media and medical business gave rise to a

69 *Kokushi daijiten*, keyword "*Hangontan yakusho*," in JK.

70 *Kokushi daijiten*, keyword "Toyama baiyaku shōnin," in JK; Kōda, *Toyama shōnin*, pp. 50–55.

71 An example of a humoristic publication on medical practice is *Isha dangi*, a five-volume narrative on the use of various drugs published under the humoristic acronym Funtokusai (which translates as something like "Poop Smelly"), published in Kyoto and Kanazawa in 1759.

sense of individual agency in health matters that emphasized balanced consumption and avoidance of excessive behavior.

5 Late Tokugawa Geopolitics and Public Health

By the mid-nineteenth century, creeping transformations in Japan's geopolitical environment had changed the meaning of health policy. If Russian incursions to the northern frontier tied demographic development to concerns over territorial rule, China's defeat in the Opium War of 1839–42 made it clear to the reading public how substance consumption could pose a serious threat to state security.

The condition of popular health, along with the management of nutritional crises, gained political significance in the late eighteenth century, when moments of disaster and famine led to the establishment of refined welfare mechanisms.[72] Around the same time, some domain lords and village communities began to treat demographic development as a matter of state interest, a trend Emiko Ochiai has observed in campaigns against abortion and infanticide that increased state control over women and their bodies.[73] By the 1850s the shogunate launched projects that created an immediate, physical connection between its geopolitical agenda and the bodies of individual subjects. Brett Walker has shown how an astonishingly exhaustive smallpox vaccination campaign was first conducted in 1857 among the Ainu residents of the northern frontier, in view of Russian competition over the region. The campaign, which was framed around the Neo-Confucian framework of "benevolent" rule, incorporated the bodies of frontier populations into the cultural and political boundaries of Japan. Within only two years, the campaign covered some sixty percent of the population in the regions for which records are available.[74] The vaccination project, Walker concludes, "sought to protect what the Hakodate magistracy viewed as a newly acquired appendage of the body politic, or

72 Maren Ehlers' work shows how guilds and neighborhood organizations, during a series of famines and disasters in the eighteenth and nineteenth centuries, took on an increasingly institutionalized role in public welfare. Ehlers, "Benevolence, Charity, and Duty," pp. 61–63.

73 Ochiai, "The Reproductive Revolution," pp. 188, 204.

74 Walker, "The Early Modern Japanese State and Ainu Vaccinations," pp. 127, 159. The smallpox vaccination technology invented in Britain in 1796 spread throughout the West and its colonies in just a few years. Its first recorded mention in Japan was in 1803, and its first confirmed use occurred in 1811, carried out by a former prisoner returned from Russia with knowledge of the method.

something to be integrated into the national whole—as well as to demarcate, at the level of the individual body, the borders of the Japanese state in the north."[75]

News of the Opium War, which had spread in Japan just a few years earlier, may have ushered in this novel understanding of public health and power. Despite censorship, unsettling narratives of the opium economy leading up to the war circulated among the vernacular readership in Japan. Mineta Fūkō (1817–83), in his polemical and partly fictional narrative of the war, *Kaigai shinwa* (News from overseas), published in 1849, warned of the "calamity for state and family" that social decay under the influence of opium would bring:

> Once you smoke [opium], you will never forget it again in your life. When people are worried, they long to end their melancholy and use it; they ease their sorrows with it and their depression lightens. Their heart and mood become harmonious and tipsy (*bikun* 微醺). Therefore, [opium] ultimately spread widely; from royals and officials to the common people, everybody used it. For that reason, the barbaric merchants seized the chance to have their way and brought enormous loads [of opium] to Canton, which they traded for the silver and gold of China … within a few years, there was a lack of gold and silver, and the population fell into decay; all this is due to the spread of opium.[76]

Some scholars question the actual severity of the impact of opium in China—Frank Dikötter contends that "the elaborate ritual of opium smoking was in marked contrast to the simplicity of opium ingestion in contemporary Europe, and contributed to a relatively low incidence of problematic consumption."[77] According to this view, the sense of crisis was much less accentuated among the Chinese than among foreign observers. Fūkō's account suggests otherwise. His report speaks of a massive geopolitical threat that came from collective addiction:

> First, the rich disperse their property to buy [opium], but even the poor will start smoking it in sheer quantities, turning over their houses and savings. They will sell their fields to purchase opium, ultimately losing their base of existence and becoming dishonest vagabonds and villains in such numbers that they cannot be controlled anymore. The spread

75 Ibid., pp. 128–129.

76 Mineta Fūkō, *Kaigai shinwa*, vol. 1, pp. 18–19.

77 Dikötter, Laaman, and Zhou, *Narcotic Culture*, p. 46.

> of these truly degenerate customs had to be suppressed immediately to avoid theft and the outflow of China's money and treasures into the hands of barbarians from ten thousand miles away.[78]

Fūkō's warnings were embedded in a historical account of China, but his plan for action in Japan was unequivocal. Though the largely fictive novel circulated in a small run of only about fifty copies, its warnings drew book-length responses about the Opium War's security consequences for Japan. The text circulated for just a few months before the censorship regime came down on Fūkō and his publisher. However, it was already too late to keep anxiety from spreading. Even after Fūkō was imprisoned, a group of activists reprinted his warnings in a larger run.[79] Though he was later banished from Edo, Fūkō's narrative of the British onslaught was read and cited by prominent intellectuals such as Sakuma Shōzan (1811–64) and his student, the activist Yoshida Shōin (1830–59), as Bob Tadashi Wakabayashi has pointed out.[80]

The lesson that Fūkō drew from the Chinese experience was that mere trade restrictions could not suppress the spread of drugs; instead, what was needed was a rigid system of social control that treated individual substance users as a threat to state security:

> The emperor heeded the warnings and ordered his court officials to convene. Finally, they decided in favor of a prohibition [of opium]. To that end, they enacted a rule: ten people should be subsumed into a unit called *bao*, and if one in the group were to offend the law, all ten of them should be punished. Not only those stocking opium, but also those who carried the tools to smoke it faced the inevitable penalty of death. If officials turned a blind eye toward a perpetrator, they were stripped of their office and faced criminal prosecution likewise.[81]

The mechanisms of control Fūkō advocated in his writings in fact resemble those that the Japanese colonial government imposed on the population in Taiwan by the century's end, as can be read in Hsu Hung Bin's contribution to this volume.[82] Though opium was produced as a medical ingredient to some

78 Mineta Fūkō, *Kaigai shinwa*, vol. 1, pp. 18–21.
79 Okuda, "Mineta Fūkō 'Kaigai shinwa'," p. 214.
80 Wakabayashi, "Opium, Expulsion, Sovereignty," pp. 2–6.
81 Mineta Fūkō, *Kaigai shinwa*, vol. 1, pp. 18–21.
82 For example, the colonial government in Taiwan, to prosecute dissidence and drug abuse, constructed a system of group liability (*hōko*) modelled after the Chinese *baojia* system. Heé, *Taiwan under Japanese Rule*, p. 634.

extent in Japan, it was the foreign threat apparent in China's Opium War that first connected the substance to threats to the state and national community.[83] Accordingly, Japan obtained restrictions on the importation of opium in 1857 treaty negotiations with the Netherlands, even before U.S. consul Townsend Harris offered to introduce such a clause in the U.S.-Japan Treaty of Amity and Commerce. By setting such a precedent, Harris intended to prevent the British from enthralling Japan with opium, but the Japanese, apparently, had already turned against the drug.[84] Yet, as Judith Vitale has recently shown, despite the pervasive effect of the Opium Wars, opium spread widely in the Meiji period as Japan was incorporated into the pharmacotherapeutic culture that had developed in the early modern West. Subsequent attempts to suppress the illicit trade and use of opium illustrate how policing consumption had quickly become an important part of the modern body politic.[85]

The institutional and intellectual reforms of the Meiji period reconfigured the state's role in medical practice and public health management in connection with the idea of the national body or *kokutai*.[86] Though essential terminology used in modern drug regulation was yet to be coined in the intellectually turbulent decades after the opening of the treaty ports, the institutions and medical practices of the early modern period had paved the way for the emergence of modern hygiene policies. In fact, institutions first established in the eighteenth century persisted across the Meiji reforms, though in a different capacity. Ozaki Kōji points out that despite the formal abolition of Osaka's Doshō-machi guild of wholesale pharmacists in 1872, the guild maintained de facto regulatory power as members entered new offices of drug supervision, maintaining intentionally vague boundaries between commercial networks and the regulation of pharmaceutical and medical businesses in the Meiji period. Though the new government abolished the wholesale guilds of Edo, Kyoto, and Osaka in a moment of free-trade liberalism, the representatives of the newly founded Pharmaceutical Trade Association (*Yakushushō kumiai*) were brought back into official business two years later, as supervisors of

83 On opium as medical ingredient in the early modern period, see Vitale, "Opiates and the 'Therapeutic Revolution in Japan'," pp. 3–9.

84 Satō, "Kindai Nihon ni okeru ahen mondai," p. 14. As a result, the Harris Treaty ratified in 1858 forbade the importation of opium to Japan. *Treaty of Amity and Commerce between the United States and Japan, July 29, 1858*, Art. IV, in Auslin, *Negotiating with Imperialism*, pp. 216–217.

85 Vitale, "Opiates and the 'Therapeutic Revolution in Japan'," pp. 14, 23; Jennings, *Opium Empire*, pp. 7–8.

86 Burns, "Constructing the National Body," p. 18.

FIGURE 1.3 "At that time, when many strange things happened, a monster appeared from the mountains of Qingtian county and ran about here and there .... It had two heads, one above the other; two eyes stared down from the upper and three from the lower. On both hands and feet, it had four digits and its claws were sharp like drills. On the top of its upper head, again, there was a terrifying hole that ejected blue smoke. Whoever is touched by this smoke must die before the end of the day. Already several hundred locals have died because of this poisonous smoke." Metaphorical representation of the opium epidemic in Qing China, in Mineta Fūkō's *Kaigai shinwa*, vol. 2, p. 23. Note the monster's European facial features.

their own drug trade, at the National Pharmaceutical Laboratory.[87] While the political disruptions in Japan's modern revolution were pervasive, important continuities remained engraved in institutions as well as in networks of commerce and knowledge.

6 Ingredients of the Body Politic

The creation of imperial subjects in the Meiji period was a state-led process that tightened control over bodies and substances. Ideas that related individual responsibility for healthy behavior to the objectives of state and society, however, are the product of longer interactions among medical theories, market mechanisms, and changing social realities. Under the Tokugawa shogunate, mercantilist ideas naturalized monopolies and sumptuary laws, but by the eighteenth century, an "industrious revolution" had politicized health and salubrious behavior, emphasizing connections between physical condition and personal choice, as reflected in the writings of Kaibara Ekiken. Likewise, disease control, reproductive policies, and improved disaster resilience illustrate how demographic development became linked to economic and security concerns. The concepts coined in the process, such as *yōjō*, the personal task of "cultivating health," paved the way for those "modern" paradigms that dominated the discourse on medicine, health, and moral behavior in the late nineteenth century. In other words, by the mid-nineteenth century, the government's interest in regulated medical markets had grown from a purely economic concern into a collectivized idea of public health.

This chapter has offered an overview of domestic and international factors that informed this gradual change of paradigms. Since the late seventeenth century, commercial development and concomitant social transformations had inspired a series of sumptuary laws against conspicuous consumption among certain status groups. At the same time, commercial development and the concomitant flooding of markets with low quality products called forth new instruments of market regulation such as guilds and mercantilist measures to replace imported medicines. In the early eighteenth century, medical theories began to emphasize personal responsibility for healthy behavior in accordance with status, consequently moralizing health. The growing number of commercially distributed advisories spread teachings such as Kaibara Ekiken's *Yōjōkun* to a broad, vernacular readership. Likewise, innovative trade practices such as the "use first, pay later" model of the Toyama pharmaceutical

87 Ozaki, "Sensai Nagayo," pp. 70–73.

industries expanded the circulation and availability of medical products and heightened general awareness of health.[88] The politicization of individual health in early modern Japan was thus by no means a centrally controlled project, but rather a broader cultural transformation fueled by commercial growth.

It is important to understand these developments in a global historical context. Throughout the early modern period, consumer behavior and medical theories evolved in close connection with intellectual transfers, substance trading, and migrating species. The appearance of the New World plant tobacco, or the early modern expansion of sugar production, inspired the introduction of fiscal mechanisms such as taxation and state monopolies for the substances in question, while bans on smoking targeted specific groups associated with the practice. News of China's opium economy in the 1840s first connected opium, a substance that was circulating largely unproblematically in Japan, to a sense of geopolitical threat. In the same period, as Brett Walker has shown, amid contention over Japan's northern frontier, a smallpox vaccination campaign framed around the Neo-Confucian concept of benevolence engendered a new political relationship between the state and its subjects' bodies. The scientifically underpinned body politic of imperial Japan built on a longstanding negotiation among commercial growth, mercantilist mechanisms, and intellectual concerns about the social cosmos.

Although an entire set of new terminology was coined in the creation of the modern body politic, the scientific register has by no means assumed exclusive currency today. As the common Japanese greeting *o-genki desu ka?*—literally, how is your vital *ki*?—shows, traditional concepts continue to inform the way personal experiences of the body, health, and disease are described in the vernacular lexicon. As this chapter has argued, historical awareness of the social contradictions that shaped such concepts can help decode the assumptions that informed the modern creation of health as a normative, moral category.

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88 Kōda, "Toyama shōnin ni yoru ryōiki keizai," p. 50.

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