CHAPTER 13

TOKUGAWA SOCIETY:
MATERIAL CULTURE, STANDARD OF LIVING, AND LIFE-styles

Our material possessions, however mundane or trivial, are extremely important to determining the quality of our lives. Indeed, the houses we live in, the possessions that provide our creature comforts, and what we eat and drink – which combine to create what can be called our material culture – are of more immediate concern and interest in our day-to-day existence than is our higher culture, namely, our religion, ideology, and arts. Also, our material possessions and our perceptions of them are essential elements to the formation of our values, goals, philosophy, and much of what we consider to be culture. A study of the material aspects of life is also more capable of illuminating the lives of the majority of most populations, the common people who form the backbone of the economy but about whom little is written in most historical documents.

The level or quality of our material culture can also serve as a principal measure of what we refer to as our standard of living, an abstract concept determined by the quantities of goods and services we consume and the amount of leisure we enjoy. The level of material culture, codetermined by income (flow) and wealth (stock), can also be used as an indicator or proxy for the standard of living in societies for which reliable statistics on income and wealth are not available.

Both material culture and standard of living are, in turn, major components of what we term life-style, the way of life or the patterns of how people live. Not only does material culture influence life-style, but conversely, life-styles help determine which mix of material goods people choose to obtain and how they divide current disposable income between consumption and savings. The nature of the material culture also affects well-being as defined by quality of life. For example, different kinds of foodstuffs or housing may cost approximately the same – and hence will be regarded as similar in measuring the standard of living – but they can result in very different levels of health and therefore stamina and energy (hence productivity) and life expectancy. These three aspects of life – material culture, standard of
living, and life-style — all are affected by the availability of resources, the levels of technology and interregional trade, the social and political systems that determine the pattern of income distribution and the level of government imposts, and a host of other factors.

Until the 1970s, few professional Japanese historians regarded material culture and life-styles as subjects of serious inquiry. Of the three topics, only the premodern standard of living was of academic concern, because it was an integral part of the debate between Marxist and non-Marxist economic historians. That is, scholars using a Marxist framework of analysis emphasized a low standard of living for commoners in the Tokugawa period, focusing on what they saw as exploitation of the cultivators and others at the bottom of society. Their questions centered on distribution, or who gets how much.

In the last two decades, however, the small but growing group of Japanese economic historians trained in neoclassical economic theory have found increasing evidence to support the view that total output was growing ever larger (though not at a fast rate compared with twentieth-century growth rates) and that the shares of all grew as the economy grew. In the 1980s, Marxists and non-Marxists alike found evidence that during the Tokugawa period the standard of living did rise. Finally, the material culture and life-styles of the common folk have become acceptable as objects of academic inquiry, just as they have in the West, and now research on all three topics is being pursued in Japan.

Although numerous sources, such as government records, diaries, novels, household budgets, and laws, reveal how people lived in Tokugawa times, these tend to be partial, random, and specific to regions, so that it is difficult to obtain a comprehensive picture of the life-styles and levels of living of larger groups and classes. Nor are there sufficient data from which to compile statistics, except for limited times and locales. The records, though far better than those for earlier centuries in Japan, are not so good with regard to life-styles as are those for eighteenth- and nineteenth-century Europe or the United States. Nevertheless, there is sufficient evidence from the seventeenth century on to enable us to discover how people must have lived.

Because of the nature of the sources, arguments over interpretation are to be expected. For instance, rice is considered to have been the staple food, but many histories report that rice was a luxury for most people and was consumed only infrequently, for ceremonies and during festivals. Then how many Japanese actually ate rice as the staple of their diet? Also, historians have usually considered that life for most
people improved with industrialization in the late nineteenth century, which has caused them to underestimate the standard of living in the preceding centuries. However, recent studies on the course of industrialization in Japan suggest that the standard of living and quality of life may instead have fallen for many Japanese during the early years of industrialization. Arguments about the standard of living and quality of life are as heated for early modern Japan as they are for Western Europe in the century following industrialization.

Not only does a study of the material culture fill out our picture of Japan from the sixteenth to the nineteenth centuries, but it also changes some of the accepted outlines. Because the formal sociopolitical structure did not change for over two centuries, we tend to assume that life, too, was unchanging. However, a study of the material culture and living standards provides evidence that Japan was always changing, albeit more slowly than in the twentieth century. Although many "traditional" life-styles had their origins in the Sengoku and early Tokugawa periods, and even earlier, many of the key elements of the material culture were developed, refined, and diffused as late as the second half of the Tokugawa period. Examples of these elements are wooden houses with raised floors covered with rush matting (tatami); meals of white rice with soup, pickles, and possibly a simple side dish; and bedding consisting of quilts filled with cotton batting and spread directly on the flooring.

The civil wars of the sixteenth century and the concurrent social and economic developments were catalysts in the transformation of the material culture and life-styles of the common folk. Artisans and merchants were increasingly drawn into the towns and cities, as were the samurai. Farmers and fishermen, left in the rural areas, were organized into formal governmental entities called mura (villages) which were also the major social and economic units. This development led to the creation of the three main social classes—the villager, the urban commoner, and the samurai—which developed the three major life-styles and patterns of consumption of the Tokugawa period. The civil wars affected the material culture as well: Daimyo


imported cotton for military use—sails, uniforms, and fuses—and it was produced domestically and spread throughout the population in the following centuries. During the late sixteenth century, the sweet potato was introduced into western Japan, and by the early eighteenth century it provided a bulwark against famine in years of poor rice crops.

With the Tokugawa peace, the new institutional arrangements encouraged economic development, which in turn spurred on social changes. Freed from the need to be ever-prepared for war, domains could allocate more effort and resources to economic development. Large engineering projects to reclaim land for cultivation and provide flood control and irrigation were sponsored by both daimyo and the bakufu during the seventeenth century. The amount of arable land is estimated to have doubled during the Tokugawa period, and much of the increase occurred during the seventeenth century. New agricultural techniques also enhanced productivity. Paralleling the increases in output and productivity in agriculture was the accelerated commercialization of the economy. By the early eighteenth century, the major goods traded included rice, cotton, rapeseed oil, saké, silk, fertilizer (dried fish cakes), draft animals, salted and dried marine products, and scores of regional specialties. The rapid urbanization in the seventeenth century stimulated the demand for products of all kinds in the towns and cities.

The first peak of this economic growth was reached by the late seventeenth century, in the Genroku era (1688–1703), noted not only for economic prosperity but even more for the cultural flowering of the first mass culture centered in the metropolises of Kyoto and Osaka. The new commoner prosperity and cultural boom were not confined to the metropolises but spread to the castle towns throughout Japan, and then to the towns that grew up in the countryside and even to the villages. The sankin kōtai system, which had many samurai traveling to Edo and living there for part of the time, the growing trade, regional specialization, and increasing participation by villagers in the national economy all contributed to the economic growth. Villagers not only traded over wide areas, often national in scope, but themselves traveled to find work and to make religious pilgrimages. The growing contact among Japanese gradually brought about cultural unification.

With the lasting peace and the economic development of the early

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3 For an analysis and description of both the economic and the accompanying social changes, see Susan B. Hanley and Kozo Yamamura, Economic and Demographic Change in Preindustrial Japan, 1660–1868 (Princeton, N.J.: Princeton University Press, 1977).
Tokugawa years, the population grew, though no one is certain by how much. The national population survey of 1721, the first of its kind in Japan, gave a figure of just over 26 million for the commoner population. Estimates for the population in 1600 range from just over 10 million to 18 million, but whichever figure is accurate—and the latter is probably closer—the population growth rate was considerable during the seventeenth century. Part of this growth may be accounted for by the absence of warfare, but at least part was due to the trend for landowners to shift from managing the labor themselves to parceling out their land to tenants, who were then free to marry.

During the Tokugawa period, patterns of income distribution in city and countryside alike changed as a result of economic growth, led by continued growth in the agricultural sector and the accelerated growth of commerce. Both farmers and merchants benefited by the inability of the samurai elite to tax commercial activities effectively or to capture the productivity gains in agriculture. By the early nineteenth century at the latest, the social groupings no longer indicated income, as the samurai elite would have liked. Also, the transmission of ideas and goods flowed across class as well as regional boundaries, and by the end of the Tokugawa period, commoners were imitating the lifestyles of the samurai and had adopted many of their values. By the late eighteenth century, some well-to-do farmers lived in houses resembling samurai residences, and the lowest-ranking samurai in most respects lived the life-style of an ordinary townsman. There were poor among the samurai as well as among the commoners, and a small number of merchants rivaled or even exceeded many high-ranked daimyo in personal disposable income. Thus there were differences in standard of living and life-styles by social class, by income stratum within each class, and by region and locale as well as by city and village.

Material culture, as defined by Japanese scholars, is composed of three basic elements: i-shoku-ju, or clothing, food, and housing. In this chapter, we shall examine these three major components and then analyze how the material culture differed by class and income, what daily life was like, and how the material culture affected the physical well-being of the Japanese. Finally, we shall look at the implications of

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4 The population figures can be found in Sekiyama Naotarō, Kinsei Nihon no jinkō kōza (Tokyo: Yoshikawa kōbunkan, 1958), pp. 137–9. A discussion of these figures and the various estimates can be found in Hanley and Yamamura, Economic and Demographic Change, chap. 3.

5 For a discussion of these changes and the effect of the market on agriculture, see Thomas C. Smith, The Agrarian Origins of Modern Japan (Stanford, Calif.: Stanford University Press, 1959).
the changes in the material culture and life-styles and attempt to assess the changes in the living standard over the Tokugawa period.

HOUSING: SAMURAI, TOWN, AND FARM

Housing is the least difficult of the three aspects of material culture to study, not only because many houses have been preserved, at least those belonging to the well-to-do, but also because we still have floor plans and paintings for numerous buildings that no longer exist. It is also easier to examine architecture because buildings and floor plans can be dealt with as a whole, a unit, in contrast with an isolated article of clothing or a household utensil. Furthermore, in many ways, housing influenced the life-style of a family, to a great extent determining how members carried out their daily work, related to one another, and learned their place in the world. Housing is probably the best indicator of family wealth, as it is the major investment for most households.

All Tokugawa housing shared certain basic characteristics, owing to the scarcity or availability of resources on the Japanese islands. The scarcity of usable space was certainly a major determinant in housing, life-style, social behavior, and communication. By the early eighteenth century, there were nearly thirty million people in an area the size of Montana, and only 15 percent of Japan is flat enough to be arable. The population was crowded into the few plains and along the coasts. Farm housing was in clusters – hamlets or villages – either along a road or a river or nestled up in the foothills where it would be difficult to create a paddy. However, the large metropolises of Edo, Osaka, and Kyoto were less densely populated per square mile than the European capitals were, because the Japanese did not build up; few buildings were more than one and a half or two stories high.

Premodern Japanese buildings were built of tensile materials such as wood, bamboo, and thatch. Most of the land was forested mountains, and so these materials were plentiful, but their use also meant that houses had to be rebuilt more frequently than did those of brick or stone. However, tensile materials were an advantage in a country plagued by earthquakes. Safety seems to have been a major consideration in the development of Japanese architecture; hence the limitations on height, the lack of cellars, and the use of foundation stones on which support posts merely rested, permitting lateral movement without the destruction of the building. The primary drawback to this type of architecture is that it was subject to fires, particularly in the densely-packed cities. Fires were the “flowers of Edo”: The worst, in
1657, destroyed over half the city and part of the castle. The main mansion of the Oda domain of Tamba burned down sixteen times, and most domains had to rebuild their mansions several times during the Tokugawa period.6

Over the course of Japan’s history, the main floor level of the house was gradually elevated. A prehistoric house was basically a thatched roof over a circular hole in the ground a couple of feet deep. Only the elite lived in houses with raised flooring. But by the sixteenth and seventeenth centuries, raised flooring was the standard for the well-to-do and the samurai, whereas the common folk and poor had houses with earthen floors. As people could afford it, they put in flooring of various kinds, but only in the section of the house that was used for sitting, eating, and sleeping. The gradual change represents both a rise in the living standard and a healthier environment, as people moved up off the damp ground.

By the Tokugawa period, virtually every house that was not a mere hovel was divided into two parts: a “living” area and a “service” (or work) area. The service area was used for preparing meals, as a workplace, and for storage. Privies and stables were part of the service area, and often all were under the same roof. The floor of the service area in every house (the doma), no matter how wealthy the occupants, was invariably packed earth, though it was an integral part of the house. The floors of living rooms were made of boards, split bamboo, or tatami, or a combination of these in houses that had raised flooring. In those houses in which flooring was beyond the family means, the living section of the dwelling was separated from the work area by a sill, and the ground was covered with husks, hulls, and straw which were then covered with straw mats for sitting and sleeping.

Posts hold up a traditional Japanese house, so that walls are not structurally necessary. Depending on the architectural style, posts are located throughout the house where necessary to hold up the building. These structural elements are not hidden, even in the most luxurious of houses, but become part of the design and decoration of the rooms. Because supporting walls are not necessary, Japanese have freedom of use of space not only within the building but also with regard to the outside walls. Large doors can be built into the service area for ease in bringing work materials and supplies inside. Whole walls can be

opened up to let in the sun and air the house. However, in the mid-to-late Tokugawa period this usually was possible only in the houses of the well-to-do who could afford sliding doors of translucent paper, and flooring.

The most striking element in traditional housing is the development of tatami flooring. This may be one feature of Japanese culture that is truly unique. In the Heian period, the floors in aristocratic buildings were wooden, and mats were used for sitting and sleeping, as they were in China. But the Japanese progressed to putting rush mats in wooden frames for use in various parts of the room and, finally, to covering an entire floor with matting. From the Muromachi period on, tatami were made of a base of straw covered by woven rush in rectangles of approximately three by six feet. The size was gradually standardized by region, with the mats made to fit between the set intervals of the support posts. Finally, they became the modules for designing a room, and the dimensions of Japanese-style rooms are still based on a set number of tatami, usually three, four and a half, six, eight, ten, or twelve. Tatami performed a number of functions: (1) They provided a firm yet comfortable floor covering for both sitting and sleeping that obviated the need for most furniture; (2) they made it possible to use a room for multiple functions when necessary, with minimum adjustments; and (3) they provided a uniform measure for constructing buildings of all types. Although tatami date from medieval times, their extensive use as standard flooring among the elite, their gradual adoption by commoners, and the role they played in the standardization of the basic components of housing all took place during the Tokugawa period. Scarce resources may have played a part in the development of this type of flooring: Mature forests were becoming scarce during the Tokugawa period, but rush could easily be grown throughout much of Japan.

Despite common housing characteristics and similarities in housing at both ends of the income scale, whatever the class, people in different occupations had different housing needs. Samurai required reception areas, whereas families in commerce had to have a store front for selling foods, storage space, and a delivery entrance for wares and materials. Farmers needed space for farm work and draft animals. There also was a wide variation by region in housing styles, but these occupational requirements resulted in similar floor plans for each class throughout Japan.

Samurai housing was the ideal for housing during the Tokugawa and even the Meiji period. It was the most innovative and the best
adapted to new life-styles as incomes rose for all classes. The basic elements of the style date from the late Muromachi period when Japanese began to build shoin into their house plans. Shoin refers to the writing table that was built into one wall of the room. Later it became a general designation for the style of a house that had this feature. This built-in desk, combined with the tokonoma (an alcove for decorative display) and the chigaidana (stepped decorative shelves) are usually considered basic to the shoin type of architecture. By the Tokugawa period, other essential elements added to this style of architecture were a formal entrance known as a genkan, raised floors covered with tatami, fusuma (built-in sliding room dividers covered with thick paper on both sides), shōji (sliding panels with wooden frames covered by translucent paper and used between a room and the outside corridor), and often square pillars instead of round for the supporting posts. Very few of the formal buildings in the shoin style survive. What many consider to be the epitome of shoin style can be seen in the Katsura Detached Palace, which was built in the seventeenth century just outside Kyoto.

Samurai housing is also known for incorporating gardens as an integral part of the architecture, rather than merely adding them on as decoration. Rooms for guests were situated so that views of the garden became the backdrop for the room when the shōji and outside protective wooden sliding doors were removed. There was usually an engawa, or veranda, several feet in width, between the room and the outside of the house. Shōji divided the room from this corridor, and wooden shutters, called rain doors (amado) usually enclosed the engawa. On fine days, both sets of sliding doors could be opened to let the sun and cool breezes into the house, which had the effect of bringing the outdoors into the house. Westerners had to resort to house plants to achieve this effect, and then less successfully.

Because the Japanese climate is humid nearly year-round, good ventilation is essential to both comfort and health, as dark, damp houses promote lung infections. Japan has a month-long rainy season beginning in mid-June, followed by a very hot summer with high

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7 For information on the shoin style of architecture, see Itó Teiji with Paul Novgorod, "The Development of Shoin-Style Architecture," in John Whitney Hall and Toyoda, eds., Japan in the Muromachi Age (Berkeley and Los Angeles: University of California Press, 1977), pp. 227–39; Fumio Hashimoto, Architecture in the Shoin Style (Tokyo: Kodansha and Shibundo, 1981); and Kiyoshi Hirai, Feudal Architecture of Japan (New York: Weatherhill/Heibonsa, 1973). A variation of the shoin style is the sukiya, which developed in buildings in which the tea ceremony was performed. The sukiya style is simpler and less formal and allows for more variation in the placing of the elements that make up the shoin style. Most residences in the Tokugawa period were in fact in this sukiya variation.
humidity, a typhoon season in the early autumn, and a winter that ranges from usually snowless in the west to areas in the north and east where snow accumulates up to the first story of houses for months at a time.

Throughout medieval Japan, housing fulfilled the primary function of providing shelter from the elements, but samurai housing during the early modern period shifted to a design that emphasized summer comfort rather than merely shelter from rain, snow, and cold. This development began in central and western Japan where protection from the winter elements was not a major consideration. During the Tokugawa period, samurai built their houses above the damp and dusty ground, open to the winter sun but protected from the high summer sun, making them more comfortable in the summer months and less damp in the rainy times of the year. What they sacrificed was warmth in winter, but how much colder the Japanese were than the Europeans in stone or brick houses is debatable.

Although most samurai houses were simple, independent structures, the mansions of high officials were built as a series of rooms or small buildings connected together in and around various courtyards, which enabled many rooms to have garden views. They were usually asymmetrical, so that from the Western standpoint the floor plans of daimyo mansions look almost as if the rooms and buildings were tacked on at random when additional space was required. This all was carefully planned, however, for both functions and aesthetics, with a good deal of traditional wisdom – and not a little superstition – about where the toilets, kitchen, gate, and well should be located. Smaller buildings connected to one another so that one large roof did not have to be engineered. The style of a number of buildings or rooms strung together was also a legacy of the palace-style architecture of the Heian period, in which each room had a separate roof and covered corridors led from one room to the next. By Tokugawa times the rooms were connected so that the houses were all part of one floor plan inside, and this trend toward more compact buildings accelerated as urban populations soared and space was at a premium.

The shoin style was used as the model for the formal audience halls

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8 The Japanese have followed the Chinese art of geomancy in designing buildings, from at least the seventh century until today. The positioning of the front gate, the toilet, the kitchen, and the like all are considered, and this sometimes results in what seem to be unlikely positioning of rooms. See Bruno Taut, *Houses and People of Japan* (London: John Gifford, 1937), pp. 26–8, for an explanation of how geomancy is applied in the twentieth century. Taut’s reaction to Japanese architecture is revealing both of the Japanese and the Westerner and is highly recommended.
of the shogun and daimyo, where the emphasis was on size and splendor to denote status, and for residences and teahouses, where there was a more relaxed and gracious atmosphere. By the late Tokugawa period, the homes of the upper-strata samurai were built in this style, and even the tiny two-room apartments of the lowest echelons of samurai had one room in which guests were received that had some of the elements of the shoin style. Commoners were forbidden to build houses in the samurai style, but by the late Tokugawa period, tokonoma and other shoin features could be found in the houses of well-to-do farmers and village headmen who had to have formal guest rooms for the reception of samurai officials. It is the samurai style that became the preferred style of housing in the Meiji period, the forerunner of modern Japanese architecture. Status symbols were certainly a factor in this preference, but so were the drier, lighter, more healthy environment and the increased comfort that became available as the standard of living rose.

In contrast with the samurai residences, which were typically detached houses situated on their own grounds, the houses of merchants, artisans, and other commoners in a town or urban setting were usually row houses. Lots were priced by the amount of frontage, as it was crucial for a merchant to have access to the street, hence the long narrow shape of the lots. Business was carried out in the part of the building facing the street, the living quarters were usually in the midsection, and a small courtyard and any storehouses were located in the rear of the lot. In western Japan in particular, city houses were usually one room in width and two to three rooms in depth, with a dirt-floored passage called the tōrimiwa running along one side from front to back. The tōrimiwa not only served as a corridor, but had the same function as the doma in farmhouses. Along one side were the cooking facilities and often a well and, a short distance from these, the privy.

The commoner sections of cities were usually laid out in large blocks, whose outer edge faced the main streets. Lots fronting these main streets were more expensive than back lots reached by narrow alleyways. In the center of these blocks were built the nagaya (long houses) or tenements that housed the daily laborers and the poor. Most nagaya were in effect one-story apartment houses, with the families sharing a well or other access to water and the privies. Typically, families lived in one room, often only nine feet by nine feet. The entrance was an earth-packed area three feet by nine, which also served as the kitchen, the work area, and the place to store any tools.
and equipment. These nagaya were the forerunners of today's small apartments, in which people carry on all daily activities from eating to sleeping in one small room with virtually no furniture.

The majority of houses in the Tokugawa period, however, were farmhouses, which were sufficiently different from samurai and urban housing that architects categorize them separately. The main difference between samurai and farm housing is that the floor plan of the farmhouse was designed to fit into the framework of the building, whereas the floor plan of the samurai house could be drawn to taste and the structure designed to fit these plans. The most common farmhouses throughout the period were essentially rectangular boxes with roofs of thatch or wooden shingles. These wooden dwellings had few openings except for a large door and some slatted windows to let in a bit of light and air. Presumably they were divided into doma and living space, but in the early part of the period, few would have had raised floors. As people could afford them, they built larger houses, and those with sufficiently large houses added floors of wood or bamboo slats and later, when they could, tatami. Dwellings with no flooring could be found in poor rural areas even after World War II, but the trend for the past several hundred years has been to build houses with flooring in the living areas.

Because of the lack of extant examples, little is known about how the farm housing – that is, housing for 80 percent or more of the Japanese – changed from medieval Japan into the Tokugawa period. It is known that up until the seventeenth century, foundation posts were usually set directly into the ground, which eventually caused them to rot. In short, houses were not built to be long lasting, even if they withstood warfare, fires, typhoons, and other disasters. There were wider regional variations during the seventeenth century and earlier, but evidence from archaeological digs and historical records suggests that in many parts of Japan the various activities of a major landholder took place in separate buildings. Even in smaller households, there were two buildings: one for family life and a second for cooking and related activities. Examples exist for such widely separated areas as the present Fukuoka Prefecture in Kyushu and in Ibaraki Prefecture in the northern Kantō plain. Sunken pit dwellings, characteristic of late

9 Farmhouses from the early modern period through about the end of the nineteenth century are termed minsha (literally, "commoners' houses"). Minsha refers to no one particular style but usually applied only to the larger farmhouses. For a discussion in English of this style of housing, see Teiji Itoh, *Traditional Domestic Architecture of Japan* (New York: Weatherhill/ Heibonsha, 1972).
prehistoric times, could also still be found in the very early seventeenth century.

By the seventeenth century, foundation stones were starting to be used in new buildings, so that the posts did not directly touch the ground. Thicker and higher-quality materials were used; braces were fitted between the posts; and walls were covered with mud plaster or boards. Increasingly, doors were made of wood rather than split and woven bamboo, and they were built to slide open in frames, rather than as a part of the wall that would open upward. Wooden floors gradually became more common than earthen ones. These developments reflected the new techniques in carpentry and also a rise in the standard of living that enabled commoners to build houses of higher quality.

In the eighteenth and nineteenth centuries, commoner housing underwent further change, reflecting developments in samurai housing made possible by new carpentry techniques. For those who could afford it, houses were transformed from dark boxes to the open style that we think of as characteristic of Japanese domestic architecture. The engawa, translucent shōji, and wooden rain doors sliding on tracks opened up the entire side of a house. The engawa progressed from a projection on the outside of the house to an integral part of the house as the rain doors were moved to enclose the engawa. Wood floors became standard, and many houses had tatami in at least one room. As people could afford to, they erected ceilings over all of the living rooms except, of course, the area over the hearth (itori). The well-to-do also began installing tokonama and other features of the shoin style.

By the late Tokugawa period, the average house size was larger than that in the seventeenth century. However, the trend was probably not one of steady, gradual increase. An analysis of house sizes in the village of Kosugaya in Owari Province in central Japan for the seventeenth and eighteenth centuries reveals a decrease during the eighteenth century. The average house size increased between 1646 and 1684 from 27.65 square yards to 32.78 square yards but then fell to 29.23 in 1734. During the same period, the number of houses in the village increased from fifty-six to sixty and then seventy, but because the population was growing, the average amount of floor space per person fell by more than 25 percent between 1684 and 1734. Kosugaya is a very small and isolated sample, but it indicates that house size varied

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greatly in accordance with economic position and that the average house was very small by modern standards. A house of 27.65 square yards, the 1646 average, measured approximately 12 by 21 feet. Other evidence that seventeenth-century houses were small comes from restrictions on building sizes. For example, in 1656, in a newly reclaimed area in Musashi Province, just outside Edo, the magistrate in charge of the area issued specifications for the kind of housing that newcomers could build. The size of house permitted depended on the size of the family. A couple could build a house only 12 feet by 21, whereas a family with four to five members was allowed a house 15 by 27 feet.\footnote{Kimura Motoi, “Nōmin seikatsu no shōsō,” Sekatsu shi, vol. 2 (Tokyo: Yamakawa shuppansha, 1965), pp. 207–8. This is not only the best summary article on the farmer’s lifestyle in the Tokugawa period, but it is replete with contemporary examples.}

However, from the eighteenth to the nineteenth century, both the size of dwellings and the average amount of space per person rose. Houses not only contained more rooms and living space, but the number of members per family also decreased. In Okayama, for example, the average household size decreased from seven in the early eighteenth century to five by the turn of the nineteenth century. The most important factor was that families had fewer children. Although the government tried to regulate house sizes, given the changes in family size over time because of changes in the members’ life cycles, it would have been impossible to regulate house size by the number of family members for more than the year in which the house was built.

The Japanese were also very clever in circumventing regulations: Usually the distance between the main posts holding the roof was limited by statute, but farmers could build larger houses by adding space under the eaves. Because most roofs were high, whole rooms could be added in this way, while keeping the size of the house within the letter of the law. City regulations often included a provision that commoner housing be no more than one and one-half stories high. Townsmen circumvented this clause, however, by building houses that were precisely one and one-half stories at the front, but with a rising roof that slanted up from the street front which made it possible to construct full-sized rooms in the middle and rear of the house, even on an upper floor. The authorities must certainly have been aware of this mass flouting of regulations, but clearly the need, the desire, and the means to build larger-than-legal structures, with the growing commerce and rising incomes, led the officials to ignore anything but the most flagrant violations.
THE HOUSE AND LIFE-styles

Just as the size and style of housing changed during the Tokugawa period, so did the use of the house. Some of the changes were due to advances in technology, growing incomes, and the availability of resources for building better-constructed housing, but many resulted from a change in life-styles and then in the function of houses. Residence indicated both occupation and status in premodern Japan. Thus status as well as function was a concern of all classes when designing or renovating houses.

At the top of the social hierarchy, daimyo were required to maintain formal residences in Edo to be used during their stay at the capital, and the specifications for these mansions depended on the status and size of the respective domains. High officials, as well as daimyo, had to have rooms suitable for meetings, for receiving important guests, and for entertaining anyone of high rank. Thus, a major consideration in the houses built for officials was these formal guest rooms, and so the floor plans of samurai housing indicate that what might seem to be an inordinate amount of space was devoted to ostentatious rooms that may have been infrequently used.

In a society so ruled by status, the treatment of guests was both governed by etiquette and often prescribed in regulations. This meant that certain features became a necessary part of samurai residences. The one that is stressed most by Japanese scholars is the genkan, or formal entrance, where guests were received and which led to the formal guest or reception rooms of the buildings. The number, size, and decoration of the reception rooms depended on the wealth and status of the homeowner. To the untutored eye, most of the rooms in a samurai residence are indistinguishable from one another, covered as they are with tatami and all leading one into another through sliding room dividers (fusuma). However, viewing empty rooms in a Japanese house is as misleading as looking at an unoccupied Western house. Each room had a separate function, and how the rooms were used by persons of which status was clearly delineated. Originally, those persons with the highest status were seated on the tatami, but when the entire floor was covered with this matting, distinctions had to be made, either by raising the floor several inches in the section of the room in which the person of superior status would sit, or by designat-

12 Hirai, Feudal Architecture, p. 151.
ing a special part of the room for guests or the master. Usually guests or those of high status were seated in front of the focal point of the room, the tokonoma or other decoration, facing the others and with their backs to the art objects displayed.

A samurai house can be divided into three basic uses of space: formal, family, and service. Typically, the largest percentage of space in the building was devoted to the formal area which had larger rooms than did the rest of the house and a separate formal entryway and entry hall, which were not used by family, tradesmen, or callers of low status. The family rooms were usually in an inner section, and the master’s private room had the same decorative elements — tokonoma, fixed writing table, and the like — as the formal reception rooms. The third area can aptly be termed the “service area” because this was where the work of the house was carried out. A large doma would adjoin a wooden-floored kitchen, storage areas, and maids’ rooms. In former times the formal, family, and service areas were housed in separate buildings, but by the Tokugawa period they all were part of the same structure.

Even in the tiny apartments of the lowest-echelon samurai, the same division of space can be seen, although clearly the living space was so small that most areas had to serve dual functions. But there was always a work space (doma) and usually a wooden-floored area, as well as a main room designed to receive guests and a second, smaller, tatami room for sleeping and storage. This type of housing became the predominant pattern for all classes in Japan in the nineteenth century and was the model for Japanese dwellings until the last few decades, with clear divisions among service areas, family living quarters, and separate reception areas for guests.

Farmhouses looked very different from samurai residences from the outside, but even in the seventeenth century, the houses built by well-to-do farmers had floor plans indicating uses similar to those of the samurai. Gradually other features of samurai housing were adopted as well. The biggest and most frequently used entrance was through the doma. Though headmen often put in formal entries for their reception rooms, many farmhouses that had formal guest rooms had access to them only through the doma and family rooms. Styles of farmhouses were so varied that it is impossible to depict a representative model. Those who could afford three- or four-room houses — and the number increased during the Tokugawa period — typically had one or two rooms used by the family, usually with a wooden or bamboo floor with
an open hearth in one of them, an inner room used for sleeping and storage, and a room for guests. These rooms were, of course, in addition to the *dona*.

Scholars of Japanese architecture and aesthetics have made much of the point that there is not as clear a demarcation between inside and outside in traditional Japanese housing as there is in Western houses. One reason is that sliding doors often fill an entire wall, and when the doors are open, the garden seems to become part of the room. An even more important reason is the tradition of building *engawa* onto rooms. These long, narrow wooden passageways are built either as walkways between the main rooms and the outside of the house or as shelflike projections onto the outside of the house at floor level. In either case, when the storm doors and inner sliding doors are opened up, the *engawa* become extensions of the rooms inside. On sunny days, occupants can move to the *engawa* to chat or work. On the other hand, persons in the garden can rest a few moments by sitting on the edge of the *engawa*. Informal calls can even be made without entering the house, for a visitor can sit on the edge of the *engawa* and chat with a family member sitting inside. In modern times the *engawa* can accommodate chairs and a small table.

Despite this seeming tradition of blurring the distinction between inside and outside, Japanese in fact make as clear distinctions as Westerners do. One is that any part of a Japanese house that can be closed off from the outside, including the *dona*, is part of the house, even though footgear is worn in this area. But outer footgear is removed when entering any section of the house covered by flooring or mats. A social equal or superior, for example, would enter a house through the formal entrance if there was one. But a neighbor, friend, or social inferior faced a two-stage process when entering a house. First he would make his presence known at the entry to the *dona*, and if the visit was to take some time or involve the serving of food, he would next be invited to come up to the living quarters (two or three feet above ground level), whereupon he would remove his footgear. In informal situations, a guest could sit casually on the edge of the raised floor of the living quarters with his feet on the *dona*, or he could stand in the *dona*.

A major reason that the *engawa* becomes an extension of the house is because so little furniture is used in traditional housing. Decoration is largely built into the structure itself, and thus support posts are chosen for aesthetic as well as practical reasons. The shelves and space to hold ornaments are built into the room itself in the form of the *tokonoma* and *chigaidana*. Walls are not hung with heavy paintings, nor are large
pieces of furniture like dining tables and sofas used, as in the West. The Japanese elite ate from individual tray tables while sitting on cushions on the floor, and thus virtually the only furniture necessary were chests for storing clothing, bedding, and other household goods. The poor, as in any country, had few possessions and often ate sitting around the fire on which their pot of food cooked.

Because they used tatami, the Japanese needed neither chairs nor beds. The well-to-do slept on either tatami or the rush matting that was its forerunner, covering themselves with their outer garments for warmth. The rich used silk for their quilts; the rest of the population used anything available. Paper bedding was common; heavy paper made of mulberry bark, hemp, or other fibers was used as a quilt cover stuffed with straw. But many people simply slept in or under their clothing. There is even the record of a samurai who did not have bedding made for several years but instead slept under his garments.

The Japanese began to use quilts stuffed with cotton batting only during the Tokugawa period, but it is difficult to trace the history of futon, as these were called, because the Japanese wrote little about the commonplace and private aspects of their lives. We do know that these quilts gradually evolved from clothing. Ieyasu was said to have used an early version, and there is increasing mention of cotton quilted bedding from the 1620s on. The term futon originally referred only to the quilt spread on the floor for sleeping. In eastern Japan, the top quilt clearly evolved from the kimono, and even nineteenth- and twentieth-century examples can be found that are roughly the shape of a kimono with a neck and sleeves. The neck was covered with a cloth collar that could be removed for washing, as this was the only part of the covering that would come into contact with the sleeper’s face.

It is probable that most people slept with little or no bedding during the Tokugawa period. Although it would have been cold, it is conceivable for people in western Japan to have used little or no bedding. In colder regions in the north, people slept near the fire. When and where it was really cold, they used bedding made from whatever materials were at hand. A traveler to Akita in 1789 noted that people dried seaweed and wove it into quilts. Hemp was also used, and even straw. An 1835 document from the Toyama–Niigata area reports that people in Akiyama just slept in their clothing, even through most of the winter, but when it was really cold, they slept in straw bags, one couple to a bag.13

The poorest people slept in a corner of their one-room earthen-floored cottage, but those who had the space, sectioned off a portion of floor, dividing it from the work space by a wooden sill. They filled the sleeping space with hulls or straw and spread straw mats on top for sleeping and sitting. People who could afford floors used the innermost corner – the farthest from the entrance to the doma – as the sleeping room (nando). This room had walls on three sides and was entered through a door from the living room, and hence it was dimly lit at best. Usually there was a sill at this door to keep the straw and hulls spread out on the floor from spilling into the next room. During the Tokugawa period, as tatami were gradually installed in sleeping areas, this door lost its function and was often eliminated from new houses.

For the well-to-do in the Tokugawa period, samurai and commoner alike, ostentation seems to have been more important than comfort in designing housing. The Japanese make much of the point that their houses are built for summer rather than winter and how open they are to gardens. But in fact, the Japanese shut up their houses at night with sliding wooden doors, even during the heat of the summer, and some of the inner rooms in the largest and most extravagant buildings were dark and gloomy inside because light could not penetrate them. In contrast with the light and airy housing that came into fashion among those with money, the huts of the poor and even the ordinary farmhouses of early Tokugawa had no windows save a few barred spaces for light and air, and thus the dwellings would have been cold and smoky in winter and hot and stuffy in summer. The sleeping room was often six by nine feet or even smaller, and as it was enclosed it would have been a dark, dank place. Although the addition of bedding added warmth, it was also likely to attract bugs, and when cotton was used, the bedding would have become damp as well. The small, unventilated construction of these sleeping rooms attests to the use of body warmth for heating purposes.

Most farmhouses did not have ceilings, and though this allowed the smoke to escape through a hole in the roof made for ventilation, it also meant that the heat, too, went into the rafters. The only means of heating houses, samurai and commoner alike, were the open hearths, and for those who could afford them, hibachi (charcoal braziers). By the latter half of the Tokugawa period, fuel was hard to come by, and so in central and western Japan many people in the cities and the poorer in the countryside went without heat altogether. The lack of sufficient fuel may be one reason for the development of raised floor-
ing in Japanese houses. The introduction of floors of raised bamboo slats meant that people no longer had to sit or sleep near the cold, damp ground. Moreover, such flooring would be cool in the summer.

One of the factors in the development of the Japanese bath must certainly have been the need to warm the body in winter. Their primary purpose was, of course, to cleanse the body. The original bath was a type of steam bath that used little water but produced a sweat that was intended to open the pores and rid the body of dirt. After leaving the steam bath, bathers would pour water over their bodies to rinse off the dirt. Baths for the well-to-do, and the first public baths in the early Tokugawa period, were steam rooms that could be enjoyed by a number of people simultaneously. The less elaborate, individual bath that commoners could afford was the forerunner of the modern Japanese bathtub, but until the early part of the twentieth century, these too were more commonly steam baths, rather than tubs of hot water. The bather would enter through a small door in the side of the bath, shut the door, and cover the bath with a woven straw lid. In the Tokugawa period, the Japanese distinguished between furo, the present term for bathtub, which referred to the steam bath, and oyu, which means hot water and referred to actually getting into a tub full of hot water. It is difficult to determine how prevalent bathing was in the seventeenth and eighteenth centuries. The public bath in Japan is considered to date from the construction of Edo in the late sixteenth century. Public baths in urban areas during the Tokugawa period enjoyed the same sort of reputation that Roman baths did; they combined hygienic functions with socializing. Various styles of bathtub are extant from diverse regions in Japan, and many can be found in the surviving farmhouses, but precisely when these were built and what percentage of the population used them are completely unknown. European visitors to Japan from the sixteenth century on were so impressed by the cleanliness of the Japanese that the standards must surely have been higher in Japan than in the West, but certainly the standards of cleanliness in both parts of the world were lower than they are today.

In the farmhouse the bath was in a corner of the doma. Also located

14 Although the Chinese and Koreans developed methods of heating houses, mainly heating the floors from below, the Japanese did not. Despite all the elements of material culture the Japanese adopted from the continent, they did not borrow the concept of central heating. Instead, they developed a system of bathing that thoroughly heated the entire body.

in the doma were the well, if inside the house, the hearth, and later the stove (kamado). The cooking, cleaning up, and quick meals or snacks all took place in the doma, as did various types of farm work, especially in inclement weather. At least in southern Japan, activities related to food preparation were undertaken in a separate building, but the typical Tokugawa pattern was for all household activities to take place in the same structure. Over time, some of these activities moved to the family room next to the doma, which usually had an open hearth and wooden flooring. This family room became the location for relaxed family meals and food preparation, and it later held the sink. There was thus a gradual shift toward using a raised, wooden-floor room for household tasks, which culminated in the modern houses in which the earthen-floored area is nothing more than a few square feet of space immediately inside the back door.

FOOD, NUTRITION, AND OTHER DIETARY FACTORS

For some two thousand years, rice has been the preferred staple of the Japanese diet, but how much of it was consumed by whom in any given period is undergoing intense debate. Rice was first introduced into the Japanese islands in prehistoric times. By the Tokugawa period it was the staple of the elites and well-to-do and also was consumed to some extent by most commoners. It was also the unit by which daimyo domains were valued, samurai stipends were calculated, and taxes were assessed. Because rice occupied such a dominant place in the Japanese economy and diet, it may seem puzzling that there is so much debate on who consumed how much rice during the Tokugawa period.

First, it is clear that rice was only one of many grains consumed during the Tokugawa period and earlier. The government recognized that rice was a luxury food, and in a famous ordinance the bakufu in 1649 exhorted peasants not to give rice to their families at harvest time. Instead they were to eat vegetables, millet, and other coarse grains. They were also not to buy saké, a wine made from rice.16 Even after the economic prosperity of the late seventeenth century, not everyone was eating rice. Frequently quoted is the report from the Kyōhō period (1716–36) stating that farmers living in the flatlands where rice was grown regularly ate rice in the form of gruel (sōsui), but

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those in the mountainous regions who had to purchase it could afford to eat it only on the first three days of the New Year. 17

Unfortunately, nearly all scholars who touch on the subject of diet in the Tokugawa period cite little more than these two sources, and most are doing so in order to support the position that commoners lived badly in premodern Japan. Other scholars, who must rely on late-nineteenth-century figures if they are to use any data at all, probably overestimate the amount of rice consumed. In all probability, during the Tokugawa period the consumption of rice steadily increased, but most of the population ate many other staple foods as well.

The argument for the widespread consumption of rice comes from both the beginning and the end of the period. 18 If rice had not been the staple by an overwhelming proportion in the early seventeenth century, it would not have made sense to have an economy in which rice was the basis for calculating salaries, taxes, and land values. More than two and a half centuries later, in 1874, rice comprised 63 percent of the value of all farm products. One of the few estimates we have on output and food consumption for any part of the Tokugawa period is for Chōshū in western Honshu for 1840. 19 An estimate based on output and population places the average daily consumption of rice in 1840 at 53 percent of the grains consumed.

It would be unusual to find any premodern society that depended on one grain crop for its staple; not only would it make poor use of human and natural resources, but it also would be dangerous, for a crop failure would cause widespread starvation. The Japanese, like most peoples, relied on a number of staple foods. The preferred grains were rice, barley, and wheat, but a number of others were consumed as well. The oldest cultivated grains in Japan were two kinds of millet (awá and kibi) and deccan grass (hie). By the Tokugawa period the Japanese also ate buckwheat (soba) and sorghum (Indian millet, called morokoshi). From prehistoric times, nuts, roots, and various tubers have been part of the Japanese diet. But rice, introduced into Japan some two thousand years ago, is the preferred staple, and other grains have been considered merely substitutions, supplementary foods, or foods to be eaten in times of famine.

17 Tanaka Kyūgū in Minkan seiyō, cited in Kitō Hiroshi, “Edo jidai no beishoku,” Rekishi kōron 89 (April 1983): 43. Tanaka, first a local and then a bakufu administrator, published Minkan seiyō in 1721. An astute observer and an expert on conditions in the Kantō region, he is widely cited because of his insight and detail.

18 The best article on this subject is Kitō, “Edo jidai no beishoku,” pp. 43–9.

The most important new food crop was the potato which arrived in both Asia and Europe from South America in the sixteenth century. The sweet potato is thought to have been introduced to Japan in 1605, and the white potato at about the same time. The reaction of the Japanese was the same as the Europeans: to grow potatoes for the pretty flowers and then to use the tubers for horse fodder. But by the second quarter of the seventeenth century, people in western Japan had begun to eat them. White potatoes became valued as a versatile food but were also used in the production of saké, *miso* (bean paste), and soy sauce. However, it is the sweet potato that is credited with reducing the death rate from famine in Japan. In 1732, locusts caused a major crop failure in Kyushu, but the death rate was low in both Satsuma and Nagasaki because people were not relying entirely on grain; now they had sweet potatoes to fall back on. Sweet potatoes could be grown upland, in contrast with rice, and they produced more calories per acre than did almost any other crop. Sweet potatoes may well have been an important factor in maintaining a dense population in Japan in the eighteenth and nineteenth centuries and also in explaining why the population of western Japan grew faster than did that of the rest of the country.20

The Japanese also relied on a wide variety of beans, greens, and other vegetables, in addition to wild plants, mushrooms, bamboo, and the like. Included in what would have to be a very long list of Tokugawa foods were white radishes, green onions, soybeans, melons, turnips, ginger, eggplant, cucumbers, and many more that do not translate into English. Wild plants eaten included a variety of ferns, burdock roots, and, in times of famine, bark and tubers that would not be considered food in normal times. Fruits included persimmons, peaches, plums, Japanese pears, and various kinds of citrus fruits.

For protein, the Japanese relied primarily on plant protein plus protein from the sea. Meat from four-legged animals was proscribed by Buddhism, but those who could afford to hunt ate wild birds, and the outcast classes are known to have eaten animal flesh. *Tōfu* (bean curd) is a good source of protein but was a luxury for many. Unless they lived near a source of seafood, commoners would rarely if ever have had fresh fish in their daily diet; dried or salted fish was more usual. The sea provided the Japanese with protein and also greens, as

seaweed was dried and used widely in a variety of ways, from adding it to soup, brewing it as tea, and even using it as medicine.

Although it is possible to add to the list of foods known to have been eaten in Japan in any period, calculating who ate how much of what and in what combination is impossible. Estimates based on the amount of rice paddy and population – which are in themselves only very rough estimates – indicate that Japan was not producing sufficient rice to feed everyone but that probably most people in cities were eating rice and that most farmers were eating rice mixed with other grains.21 In every social class from samurai down to commoners, the amount of rice in the diet depended on income. The amount of arable land, including irrigated paddy, was substantially increased in the seventeenth century, and the flourishing rice market combined with the greater number of farmers paying their rice tax in cash instead of in kind from the 1660s and 1670s into the eighteenth century all tell of a surplus in rice for cultivators and the establishment of a rice diet.

Just as farmers ate more rice over time, so did they eat better-milled and more highly polished rice. In the seventeenth century, people ate rice that was partially polished; it appeared whitish, but part of the bran remained. Late in the century, a process was developed that would completely remove the hull but leave the bran. White, or polished, rice was considered the highest quality, and this tended to be eaten in cities. But those who could afford white rice tended to develop a vitamin B deficiency, and thus beriberi became known as the “Edo affliction.” People who became ill while working as servants in Edo found that when they went back to the country, they improved, but it was not until the early twentieth century that the cause of this disease was discovered.

In the countryside, the diet consisted of mixed grains and vegetables. Rice was often the “glue” that held together the coarse grains, and it was added to create the desired consistency. Often various seasonal greens were added to make a kind of vegetable-grain stew. This type of dish might be eaten only once a day; at other meals there would be gruel, according to a description of the diet in Kawasaki along the Tōkaidō.22 In Musashino, on the outskirts of Edo, the diet from the mid-Tokugawa period on was said to consist mostly of coarse grains, usually a mixture of three parts millet (awa) and seven parts barley.

21 See Kitō, “Edo jidai no beishoku”; and Nishikawa, “Grain Consumption.”
What people ate and how they prepared it depended to a large extent on the utensils and technology available. This not only varied by region but also changed over the course of the Tokugawa period, and these changes transformed the Japanese diet. Traditionally the Japanese had two basic methods of cooking: One used the irori, an open hearth with a pot set over it on a hook suspended from the ceiling; and the other used the kamado, an enclosed stove with pots set into the top. The kamado used less fuel, but by the same token it could not be used for warming the family. In families depending on the irori for cooking, one-pot dishes were popular because the various ingredients could be added at the appropriate times and just left to cook in the pot, as could gruels. Families who could afford a kamado, which usually had more than one place for a pot, could use it to cook more complicated meals, including the rice or grain as a separate dish from the soup and vegetables.

By the Tokugawa period, the kamado was widely used in towns and cities where it was difficult and expensive to obtain fuel, whereas the irori predominated in the cold regions of the north. In mansions and monasteries, a kamado was used in the doma for cooking, and a hibachi provided what little heat there was for at least warming the hands. Farmhouses of the well-to-do often had a kamado in the doma and one or more irori in the living rooms. The smoke from the irori could also be used to dry and preserve foods – and it also preserved the roof – but it damaged the eyes of the people gathered around the fire for light and heat.

A related development was an iron ring on which to rest a pot in the irori so that it did not rest directly on the fire. The use of this ring meant that earthenware pots, instead of precious iron, could be used for cooking and that less heat was necessary. Charcoal, which used fewer resources than burning wood directly did and which could be more readily transported, was sufficient for this new method of cooking. By the late Tokugawa period, the methods that used less fuel and iron were increasingly popular, particularly in urban areas.

The present method of steaming polished rice is a relatively new technique. The method gradually developed from the mid-Tokugawa period but was perfected and became widespread only a century ago. Originally two methods were used. One was the same as the present method, in which exactly the right amount of water is used from the

23 For good descriptions of cooking utensils and methods, see Eikuan Kenji, Daidokoro dogu no rekishi (Tokyo: Shibata shoten, 1976).
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start and the rice is steamed until the liquid is completely absorbed. The second was to start with more water than was needed. The excess was removed during the cooking process, and then the rice was left to steam. The first method is the more difficult because the temperature must be gauged precisely; the rice must be cooked at a high temperature at first; and after the midpoint, the heat must be lowered but the top not opened until the cooking is completed and the rice has sat for some time. The rice can easily be burned and ruined, and thus considerable cooking skill was needed to prepare rice using this method, in contrast with boiling it in a pot on the *itorî. Clearly only the elite and well-to-do had the resources, time, and skill to prepare rice using this method, but the growth of its popularity over time clearly attests to a rise in the standard of living. 

The development of Japanese cuisine accompanied these changes in rice preparation methods from the mid-Tokugawa period on. As cities grew, the first restaurants began to appear. By the late Tokugawa period numerous cookbooks had been written and circulated, and the chefs for the rich were even experimenting with exotic new spices, such as cinnamon, that were introduced to Japan in the early nineteenth century. Clearly, many Japanese had reached a level of culture and income at which they could afford a varied diet and wished to experiment with food. 

The main seasoning for most Japanese was *miso, a paste based on soybeans. Although this was commercially produced during the Tokugawa period, most families made their own, usually once a year, in February or March. This seasoning was used daily in soup and could be used to flavor vegetables or fish. Soy sauce was also available but was seldom used. It was hard to make, and the quality varied considerably. Thus it was only an upper-class seasoning. It was not until the last century that the quality of soy sauce was perfected to the point that it could be used without cooking. As in every other premodern society, salt was both a seasoning and a preservative. Mountain villagers seldom saw fish that had not been dried and salted, and any green vegetables eaten in the long winter months were in the form of pickles. 

To summarize, the center of the Edo period diet was staple grains. The word for cooked rice is the same word for meal in Japanese: *gohan. Everything else was considered a side dish (*okazu). Most families ate *miso soup and pickles at meals at which the main dish was not a gruel or grain-based stew. At ceremonial occasions, bean curd and salted fish were served, and when the technique was known, steamed white rice with red beans cooked in it was a special treat. 

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From the evidence available, it is possible to argue either that the
Japanese had a very poor and boring diet in the Tokugawa period or
that the diet was rich and varied. Even samurai families were often
restricted to a daily diet of coarse grains or rice and other grains with a
side dish of fish or something special for the master but only soup,
pickles, and possibly boiled vegetables for the rest of the family and
the servants. Accounts can be found of mountain villages in which
virtually no rice was eaten because none was grown and the villagers
were too poor to buy it. Oral histories tend toward this picture of daily
life in the late nineteenth century, but diets reconstructed from mem-
ory are notoriously unreliable.

On the other hand, there are numerous accounts of meals at inns,
feasts on special occasions, and the delicacies given to the elite and
wealthy that lead to the conclusion that the diet for at least some was at
the gourmet level. For instance, in Yonezawa in the mid-Tokugawa
period, a group of men who formed the governing body of a village
held a meeting after the fall harvest at which they ate the following
foods: salted salmon, tuna, bean curd, dried bonito, squid, herring
roe, and dried herring – all purchased in a nearby town – eggs, dried
nameko (a kind of mushroom), sea bream, fried bean curd, ayu
(sweetfish), horseradish, and the list goes on.24 Clearly many of the
items were not part of the daily diet, and certainly not in this combina-
tion, but they all were available, and farmers had the income to pur-
chase them for special occasions. Sugar was a luxury item and pur-
chased only in small quantities, but it is significant that even people in
the northern, poorer sections of the country could buy it and did by
the mid- to late Tokugawa.

Saké, rice wine, was the most popular drink and was produced all
over the country. The best was Nada saké, made in Settsu (just west of
the modern Kobe), and this was shipped to Edo from Osaka in such
quantity that special ships were developed for this purpose. Farmers
produced in their own homes a “home brew,” an unrefined version of
saké. Saké was in such demand that when regulations ordered a reduc-
tion in saké production in times of famine, many disobeyed. This is a
clear indication that by the Tokugawa period not everyone suffered in
times of crop failure.

At least two attempts have been made to ascertain the nutritional
level during this period. This is an overwhelming task, given the lack
of information to determine even what the typical diet was. The most

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successful efforts so far are based on data from the mid-nineteenth century. This evidence, though scattered, seems to indicate that nutrition probably improved over time, and so the quantitative studies would represent the highest levels that nutrition probably reached during the Tokugawa period. The most ambitious studies are for the Hida area of Gifu and for the domain of Chōshū in western Honshu.

The data for Hida are for 1874 and include the amounts of 168 foodstuffs produced and the amount of food imported and exported from the area.25 By dividing the total amount of food retained in the region by the total population and by 365 days, one can obtain a rough estimate of the nutrition available to the “average” person in 1874. The results of the study of Hida indicate a heavy dependency on rice and millet, which led to a deficiency of certain essential vitamins and minerals, notably vitamins A and C, calcium, and iron. The diet was somewhat lacking in protein and very high in salt content. This evaluation is borne out by the leading causes of death as analyzed from the records of a local temple. Among the major causes were childbirth complications (in which calcium deficiencies can play a part), cerebral hemorrhage (connected to a high salt intake), and epidemics (whose incidence is worsened by a low level of nutrition). The Hida estimates are for a mountainous area, and the authors of the study admit that some items known to have been consumed were not included in the survey, such as sweets, eggs, seaweed, some kinds of mushrooms, and certainly wild greens that individuals could gather from the mountainside. These would never be included in the figures on output, but they may have contributed to raising somewhat the vitamin content of the diet. From the data available for Hida, the average daily caloric intake has been estimated at roughly 1,850 calories.

The Hida estimate can be considered at the same nutritional level as Chōshū’s diet, which in the 1840s contained an average per-capita intake of 1,664 calories from staple foods, including rice, barley, wheat, millet, buckwheat, soybeans, red beans, and sweet potatoes.26 This does not include fish, seaweed, vegetables, fruit, or sweets. Even though fish and vegetables were a minor part of the diet, they would almost certainly have added a couple hundred calories per day and been significant in balancing the diet. By the 1890s, the Japanese in

25 The implications of this study with regard to the diet for the people in this area can be found in Fujino Yoshiko, “Meiji shoki ni okeru sansō no shokuji to eiyō: ‘Hida go-fūdoki’ no bunseki o tsūjite,” Kokuritsu Minzokugaku Hakubutsukan Kenkyū hōkoku 7 (September 1982): 632–54.
this region obtained on the average 1,902 calories from the staples, just above the Hida estimate for a decade earlier. What is significant about both the estimates is that the number of calories would probably have been sufficient for the body stature of the time, given that the army recruits in the last two decades of the nineteenth century had an average height of 156.5 centimeters, or 5 feet 1.5 inches.27 Also, the very young and the elderly would have consumed less, leaving more calories for the adult males.

Many members of the samurai class and well-off commoners in the prospering flatlands of Japan almost certainly had a better diet than the average diet in either Hida or Chōshū. One lower official in the bakufu, who was something of a gourmand, kept a travel diary in 1856 that listed the menus of the inns he stayed in while making an official tour to the north of Edo.28 Based on these menus, the diet of travelers would have been adequate, with the possible exception of vitamin A. But because sweet potatoes, pumpkin, and squash, plus numerous greens, were eaten in the home, many would have had a well-balanced diet.

It would be difficult to argue, of course, on the basis of fragments of evidence that the Japanese as a people were well nourished or that they were better nourished than the Europeans were during the seventeenth and eighteenth centuries. However, the rapid growth of the Japanese population during the seventeenth century and the relatively few famines and deadly epidemics reported during these centuries corroborate the conclusion that the Japanese must have been fairly well fed. By 1700, Japan not only contained three of the world’s largest cities but was over 10 percent urbanized by conservative estimate. It was also one of the most densely populated countries in terms of the man–land ratio. Yet two major crop failures of multiple-year duration (in the 1730s and 1780s) plus other poor harvest years did not decrease the population of this already-crowded country. The Japanese had sufficient surplus in normal or good years so that food could be stored. A single year of poor harvest thus could be weathered without the loss of life recorded for earlier centuries.

The new foods introduced during the late medieval period, rises in agricultural productivity during the Tokugawa period, improvements

27 The heights of military recruits from the Meiji period on can be found in the Nihon teikoku tōkei nenkan of the Naikaku tōkei kyoku. These are cited in Carl Mosk, "Fecundity, Infanticide, and Food Consumption in Japan," Explorations in Economic History 15 (July 1978): 279.
in transportation, and a more varied diet for much of the population
during the seventeenth and eighteenth centuries not only meant a
lower incidence of disease and less fear of starvation but also an in-
crease in longevity for many Japanese.

Clothing
Clothing in any society is a reflection of the standard of living and the
quality of life, as well as the structure of society. The Tokugawa period
saw a distinct rise in the quality of life, owing to the introduction of a
new fiber for cloth. In addition, changes in clothing styles resulted
from both the occupational class structure and the new distinctions in
wealth. The most striking development was the introduction of cotton
in the late Sengoku period, which transformed clothing and bedding
for commoners and samurai alike over the next two hundred years.
The introduction of cotton was so unspectacular that it has almost
been ignored by historians. It was first imported from the continent,
mostly Korea, by the Sengoku daimyo, who were interested in it for
three reasons: for sails, for fuses for the newly introduced firearms,
and for uniforms. Canvas was more durable than straw for sails and
more resistant to weather; cotton fuses were more reliable than those
made of cypress bark or bamboo; and cotton uniforms were more
durable than paper, warmer than hemp, and wore and looked better in
battle. The Japanese had known of the superiority of cotton to other
fabrics from the fifteenth century, but it took about a century and the
military needs of the civil wars leading to unification before the Japa-
nese managed to grow it for themselves.

In the seventeenth century, when the Japanese learned how to grow
their own cotton, it came to be the preferred material for clothing for
commoners. Because it was superior to hemp, it gradually replaced the
coarser fiber for all who could afford it. Its popularity is indicated by the
fact that in Osaka in 1736 the value of all cotton products far exceeded
the value of rice traded in this major transshipment center. It may well
have had the same kind of impact on the Japanese population that it had
in the West, in terms of making life more comfortable and more
hygienic — possibly even helping lower mortality, thereby being a factor
in the rapid population growth of the seventeenth century.

Silk remained the preferred material for the rich as it had been for
over a millennium. Though fashions varied widely over time, women's

formal dress from the eighth century on and men’s formal wear from about the twelfth were versions of the kimono. The basic garment was made of straight pieces of cloth, rectangular in shape and with rectangular sleeves. To hold the garment on, the left front panel was closed over the right one and some kind of belt or sash was wrapped around the waist. In earlier periods, court dress and even the everyday dress of the aristocrats was often extremely impractical, with the length of the garment several feet longer than the person wearing it, so that walking was next to impossible. By the Tokugawa period, even formal dress was simplified so that the longest garments were floor length or shorter. Social distinctions were made by style, type of material, and impractical fashions such as very long sleeves that would preclude any kind of manual work for wealthy young women. Little jewelry was worn other than hair ornaments; instead brocade, richly dyed materials, and gold and silver embroidery were used by the wealthy.

By the seventeenth century, the basic garment for formal and casual wear of all classes was the kosode, which fits the description of what Westerners envision when the word kimono is used. The kosode was so widely adopted that by the eighteenth century, people were calling it kimono, which literally means clothing. Originally an undergarment, the kosode became the article of clothing worn immediately under outerwear, such as rain gear or the formal outer garments worn for public ceremonies. Until the seventeenth century, a sash tied above the hips held the clothing together — no buttons, ties, or hooks were used. But in the Tokugawa period, women started using a wide, stiff band, called an obi, that encircled them from under the breasts to the top of the hips, giving them a rather tubular look. As cotton became widely used, both men and women added cotton underwear and men usually wore a loincloth. A Japanese of any period could tell the status, wealth, and age of any other Japanese merely by looking at his or her clothing, but the basic pattern of the kosode changed little over time.30

All kimono for adults are made even today from one long, rectangular length of cloth that is cut into eight pieces. The pattern and length of the bolt of cloth is the same for every adult. Because the pieces are cut in straight lines, there is no waste. Adjustments for variations in size are made by tucking up the kimono under the sash. Kimono are sewn together with bastin stitches. Thus the thread can be removed and the garment taken apart when it is washed.

This type of clothing was extremely economical in a premodern society in which clothing was expensive. No material was wasted in the cutting and sewing, and the standard kimono size meant that fabric could be produced in standard lengths. Clothing could be passed from one person to another without alteration, as the garments were one-size-fits-all. And when a garment was taken apart for laundering, it could be refurbished by bleaching and redyeing if necessary. Children's clothing was made in the same way, with huge tucks taken at the shoulders and the waistline which could be let out as the child grew. Finally, when a garment was too old to be worn any longer, it would be taken apart one last time and the material cut up for diapers, rags, and other household items. Clearly, Japanese clothing was designed for making maximum use of scarce resources. Even for the rich who wore elaborately woven and dyed materials, the standardization meant minimum waste.

Footgear was also standardized. The poor wore sandals of straw called waraji which could be woven very quickly and cheaply. Waraji were also the basic footgear for travelers. Wooden clogs (geta) of varying heights were useful in the mud and rain but were difficult to wear when walking long distances. For dress the Japanese wore zori, a kind of thonged sandal. The only form of stocking worn was a short sock (tabi) with a mittenlike separation for the big toe so that it could fit into both sandals and geta. All footgear could be easily slipped on and off, as they had to be removed before entering any building with floors.

None of the clothing described was very useful for working in the fields or at heavy manual labor in the towns. One of the most detailed descriptions of village life dates from 1857 but portrays the conditions prevailing from the mid-Tokugawa period on.\(^{31}\) In a village in Tosa in southern Shikoku, the daily working garb for both men and women was a type of pants said to have been derived from the Portuguese outfits of the sixteenth century, over which was worn a short type of jacket. Over this might be worn a protective bib and an apron, and some workers wore fingerless gloves. In summer the outfit was much abbreviated; often only a brief undergarment and an apron were worn, plus a sun visor or hat to protect the head and face from the sun. The hachimaki – a towel tied around the forehead to catch sweat – was popular as well. The official who wrote about the Tosa village was much impressed by the diligence of the people, but not with their

sense of cleanliness or etiquette. He also commented that most slept in
their working clothes directly on the floor.

The Japanese did not have the sense of shame regarding their bodies
that Westerners were taught. Because clothing was expensive, many
people worked nearly naked during the summer, and women doing
manual labor often stripped to the waist, particularly middle-aged and
older women. Those with social pretensions would not have appeared
in anything less than full dress, and neither would farmers on a formal
occasion, but being caught naked was not something to worry the
ordinary person. Houses had little privacy, and people were brought
up to ignore anyone not in proper dress.

Although the well-to-do Japanese did not wear jewelry in the form
of bracelets, brooches, or earrings, women often wore elaborate
hairstyles and hair ornaments. In fact, these were so elaborate that
hairdressers were called in once or twice a week to create the styles. In
order not to displace the hair, women began to sleep on neck rests that
supported only the base of the head and so kept the hairdo from
mussing. This meant that women had to sleep on their backs and train
themselves not to roll over in their sleep. Men, too, wore fairly elabo-
rate though more practical styles, the most conspicuous being that of
the *chommage* which was originally a samurai style. The head was
shaved on the top, but the rest of the hair was allowed to grow long
and was pulled into a topknot that was either folded forward onto the
top of the shaven head or tied so that it stuck out from the back of the
head like a stiff ponytail. The hairstyles clearly varied by class and
status, so that one could tell at a glance the person’s age, social status,
and wealth and, for women, marital status as well.

Many women also wore elaborate makeup. The customs that off-
fended the taste of Westerners were women’s shaving their eyebrows
and blackening their teeth with a mixture made of iron shavings and
an adhesive. Women also wore face powder and rouge, according to
social status. The *geisha* and prostitutes were distinguished from other
women not only by their dress but also by their makeup, both of
which were in the extreme of fashion. Farm women, on the other
hand, had neither the time nor the money for makeup or elaborate
hairstyles.

Although one would expect to find that dress varied by class and
income in a highly stratified society, what is remarkable for Tokugawa
Japan is how similar the basic cut of the clothing was for each class.
Samurai clothing, even for the most formal occasions, was a much
simplified version of that worn in earlier periods, and much more
practical. At the same time, commoners gradually became better off and started wearing simplified versions of the same basic style. The daily wear of men of both the samurai and merchant classes was remarkably similar in basic style. And though one could determine the status of women from their clothing, again the basic pattern was similar for all. Thus, during this period when many historians emphasize class distinctions, dress in fact was gradually being standardized and class differences minimized.\textsuperscript{32}

\textbf{IMPLICATIONS OF CHANGES IN THE MATERIAL CULTURE AND LIFE-STYLES}

Because the institutional structure remained much the same from the early seventeenth until the mid-nineteenth century, the Tokugawa period is usually viewed as a time when the Japanese life-style underwent little if any change. But recent studies of the material culture, particularly in relation to economic, demographic, and social conditions, reveal much about change in the standard of living and the quality of life, as well as in the relationships among the social classes and in their lifestyles.

Two of the most important influences on all aspects of life in the Tokugawa period were Japan's large population combined with a relative scarcity of resources. The Japanese therefore made a virtue of necessity and created a material culture that focused on the simple – on one or a few rather than on the many. The result was an almost total elimination of waste. The unifiers and especially the early shoguns patronized luxurious art and architectural styles, but even in the early seventeenth century they continued to follow an earlier tradition of simplicity. Katsura Detached Palace near Kyoto is a prime example of this merging of traditions.

One can find simplicity and economy in the material culture of all classes. Houses, by Western standards, were almost without furniture. The decorative focus of the main room was an alcove in which were usually displayed only two objects: a ceramic vase and a hanging scroll. The rich owned many objects of art, but these were stored and brought out to be appreciated only one at a time. Japanese flower

\textsuperscript{32} \textit{Mon}, the crests adopted by families as emblems, differed from the European coats of arms, in that although they originated as warrior insignia, they also functioned as design and their use was never monopolized by the ruling elites. All daimyo and samurai had family crests, but crests also served as commercial trademarks, even those designs associated with the ruling families.
arrangements were elaborate, but they were created from what are actually only a few flowers plus leaves, branches, and materials that would be thrown out in the West.

The scarcity of resources affected housing, the diet, and daily life, as well as aesthetic traditions. Houses and their furnishings were made from what was available, not just wood, but often bamboo, rush, and, for the poor, even straw and husks. Even clay for pottery was often unobtainable, given Japan's volcanic soils. Metals were used only when there was no substitute; one can even find wooden knives from the Tokugawa period. The well-to-do Japanese built their houses for summer and chose to ignore when possible the winter cold. When they did use heat, it was efficiently to heat bodies rather than entire rooms.

The Japanese ate almost every kind of plant and seafood. Many of the foods appreciated for their delicate flavor and eaten in small quantities are not considered edible in Europe and in fact have little or no nutritional value. The sea was especially important as a source of foodstuffs. Not only was it readily accessible from many parts of Japan, but by the sixteenth century, Japan could no longer afford the land it took to raise livestock for food – pasture land and grain fields could be better used to provide food for people rather than feed for animals. One could argue that the Japanese were following Buddhist proscriptions against the eating of meat, but why did the Chinese not follow such strictures? As their population grew denser, the Japanese began to rely almost exclusively on grains, whenever possible rice, along with sweet potatoes for their calories.

One can see that almost every element of the Japanese life-style resulted from an attempt to live well using the least amount of resources. Despite the Japanese emphasis on economy of resources, or perhaps because of the Japanese aversion to waste, the average standard of living rose during the Tokugawa period. That the Japanese had an economic surplus during these centuries is suggested by the fact that the country as a whole was able to support an urban population of between 10 and 20 percent of the total population.

Urban demand stimulated rural production. No one disputes that the economy was growing at a good pace during the seventeenth century, but some controversy still exists among Japanese historians as to whether the economy continued to grow in the eighteenth and nineteenth centuries and who the beneficiaries were. Marxist scholars still write of burdensome taxes, harvest failures, lack of savings, and exploitation of the peasants by other classes, all of which led to famines, to peasants who were forced off their land when they could not pay rent.
or taxes, and to lives of poverty and hardship in the villages. But even historians in this school offer evidence to the contrary, even for the poorest regions of the northeast. They acknowledge an increase in the consumption of sugar (which had to be imported from western Japan) and fresh fish, an increase in the consumption of white rice and saké, and much improved clothing. Even in Morioka, in the extreme north, the deaths reported to the bakufu in the famine of the 1780s were largely fictitious; certainly such vast numbers are not to be found in the domain's own books.33

Economic historians trained in modern economic theory are publishing a growing number of quantitative studies that demonstrate that the economy continued to grow in the eighteenth century, even if not at the rate of the seventeenth, and that the standard of living by the early to mid-nineteenth century was at Meiji levels in many respects.34 Those doing the quantitative studies have yet to obtain results that support the Marxist case. This is not to say that no one died from lack of food or as a result of malnutrition but, rather, that during this period the Japanese were not only able to support their large population—well over 25 million by the eighteenth century—but also to improve the life of the average Japanese as well.

Dramatic evidence of the improvement in the rural standard of living can be inferred from regulations governing goods permitted to be sold in the rural districts of the daimyō domain of Okayama.35 In order to prevent the cultivators from wasting on small luxuries any cash they might have, the domain first tried to place a total ban on rural peddlers, but this was so openly violated that by 1666 peddlers were allowed to sell eleven items considered necessities: fishing nets, dried fish, salt, dried seaweed, tea, rapeseed oil, kindling, wooden water dippers, oars, basket tops, and farm tools. As demand grew, the rules had to be relaxed accordingly, and by 1705, thirty-one items were permitted to be sold, including pottery, cotton, pans, rice pots, straw mats, paper, fans, and rulers. The number of peddlers more than doubled between 1652 and 1707, and by the 1720s the domain discov-

33 For elaboration on Morioka, see chap. 6 of Hanley and Yamamura, Economic and Demographic Change, pp. 126–60.
34 These economic historians have organized a group for the study of quantitative economic history. Key members include Hayami Akira and Nishikawa Shunsaku of Keio University, Unemura Mataji and Saitō Osamu of Hitotsubashi University, and Yasuba Yasukichi and Miyamoto Matao of Osaka University.
35 Discussions of the regulations, their violations, and what was sold and how in the villages are found in Andō Seiichi, Kinsei saiakata shōgō no kenkyū (Tokyo: Yoshikawa kōbunkan, 1958), pp. 125–8; and in Okayama shiyakusho, Okayama shishi, sangyō keizai hen (Okayama: Okayama shiyakusho, 1966), pp. 164–5.
erected that many merchants were selling in farm villages without bothering to obtain a license.

By the eighteenth century, the castle town no longer controlled all commerce in Okayama. Rural towns had sprung up and many peddlers were based in them, and by late in the century many villages had their own stores, making goods available on a daily basis. To cite one example, by 1813, a much-cited shop in the village of Oi sold, among other things, ink, paper, writing brushes, pots, needles, pipes, tobacco and pouches, teapots, various containers and dishes, vinegar, soy sauce, bean paste, salt, noodles, kelp, saké, cakes, tea and teacups, rice crackers, grain, oil, candles, hair oil, hair cords and hairpins, cotton, towels, socks, various kinds of footgear, funeral necessities, and “other everyday necessities.” Other shops in the same village sold various kinds of food and farm necessities, such as tools and fertilizers. All of these goods were common items in traditional Japanese material culture, and they had long been available in towns and cities. What is significant is that during the Tokugawa period, rural villagers were gradually able to buy goods that had been previously available only in urban centers or to purchase items that had formerly been made in the household, such as bean paste and soy sauce.

By the nineteenth century, goods sold in Okayama included products made all over Japan, and the domain itself was producing an impressive number of goods that it sold within the domain as well as exported to other parts of Japan. This area was particularly well known for its cotton products and rush for tatami covers. It produced saké, pottery, tobacco, paper, tea, sugar and sweets, medicine, dyes, furniture, and household goods made of iron. By this time, some people even in the farming villages were able to afford linen, medicines, and furniture, specialty goods imported from distant parts of Japan.

Although Okayama is a domain in the more advanced area of western Japan, even the domains considered the most “backward” showed clear evidence of a rising standard of living. In Morioka in the northeast, people in the mountainous regions and poorer villages were eating fresh fish by the late eighteenth century, and candies made with sugar imported from the west were sold widely. Clothing improved, to the point that the domain began to issue decrees admonishing the

36 Andō, Kinsei zaikata shōgyō, p. 95.
37 Okayama-ken, Okayama-ken no rekishi (Okayama: Okayama-ken, 1962), pp. 392–5; and Andō, Kinsei zaikata shōgyō, pp. 95, 125.
peasants and prohibiting "luxuries."38 The most luxurious consumer goods were, of course, available in the large cities, and the stories and histories of the pleasure quarters provide ample evidence of what could be purchased.39

The rising standard of living both brought the Japanese more goods and some luxuries and also improved the quality of their life. The changes in housing that made life more comfortable often made the people healthier as well. Cotton was as much a boon to the Japanese as it was to the Europeans. But the quality of life was also affected by the Japanese social customs and personal patterns of behavior, particularly by the Japanese response to scarce resources. Despite the high value that Japanese place on the group, many items in daily life were given to one individual for private use, in contrast with shared utensils used in the West. For example, chopsticks, rice bowls, and teacups were portioned out to the family members, and no one used anyone else's. Thus it did not much matter that these were not washed carefully between meals, if at all. In merchant houses with numerous employees resident, each person took his or her own meals on a separate tray table, and often the dishes and chopsticks were wiped off after each meal and stored in a drawer at the bottom of the tray until the next meal. Lower on the economic scale, family meals were more casual, with individuals picking bits of food out of the communal pot or pickle dishes. Also, it was not customary to drink water; a kettle was kept on the fire with cheap tea in it, and family members dipped into it when thirsty. These customs almost certainly helped limit the spread of disease.

Resource scarcity had an unexpected effect on sanitation. Even in the early Tokugawa period, fertilizer was in inadequate supply. With little animal manure available, the Japanese resorted to human waste, and in the farming areas surrounding the largest cities, night soil was transformed from a waste to a "good," one that was bought and sold. For example, in the seventeenth century, vegetables brought by boat to Osaka were exchanged for night soil. But by the early eighteenth century, the demand for this type of fertilizer had risen so much that farmers had to pay for night soil in cash, and groups of villages fought over collection rights.40 Under these circumstances, city dwellers were unlikely to dispose of human wastes by throwing them out on the

39 See Chapter 14 in this volume.
street, as many Europeans did, nor were there the problems with cesspools that many American cities faced. Although bath and dish-water ran through uncovered drainage ditches in the middle of or alongside the road, this did not produce either the stench or the unhealthy conditions that prevailed in London and other cities because of their open sewers. Thus, because wastes were useful in Tokugawa cities, they were collected, rather than allowed to seep into the water table and contaminate wells and underground pipes. By the late nineteenth century, the quality of the water in Edo was higher than that in London was in the same period.41

The net result of Japanese customs with regard to sanitation was a much lower incidence of epidemic diseases than in Europe and other parts of the world.42 Cholera was absent until the mid-nineteenth century and then was readily contained, and typhoid seems not to have been a problem. Both of these diseases are spread through polluted water. Even dysentery, which almost certainly affected the death rate of the very young in Japan, was not the killer of children that it was in the West in the nineteenth century. The closing off of Japan from anything but the most limited contact with other countries certainly helped keep cholera and bubonic plague from the Japanese population. Japan’s rapidly running and short rivers did much to prevent water pollution. Equally important were waste disposal, boiling of the drinking water, and other sanitation measures routinely practiced by all Japanese.

The data do not exist to enable a direct comparison between the Japanese standard of living and quality of life with those of European or other countries, but information on the population can be used for comparison. Many of the estimates of mortality and life expectancy are for small samples, but the studies made by various scholars have such consistent results that they can be considered to apply to a much larger area, in fact much of central and western Japan.43 The crude death rates in village samples dating from the late eighteenth century to the end of the Tokugawa period indicate that most crude death rate averages were in the twenties per thousand, even in years of hardship. Death rates were more frequently below twenty than above thirty. The

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43 For a summary and analysis of many of these studies, see chap. 11 of Hanley and Yamamura, Economic and Demographic Change, pp. 292–319.
sole exception for these samples is for the period of the Tempō famine in the 1830s, when the death rate for a village in the northeast rose to thirty-seven per thousand and that for the city of Takayama was nearly forty-five. Estimated life expectancies for the same samples are higher than many Japanese scholars find believable, but the challengers have not been able to furnish contradictory evidence. Estimated life expectancies of over forty years meant that two-year-olds in the late Tokugawa period had a life expectancy similar to those in Western Europe in the mid-nineteenth century, and one not much different from that in Japan in the early twentieth century.

Japan's birthrates from the eighteenth century on were in the same range as the death rates. The effect of the low birthrates combined with low death rates was to create a very slow rate of population growth for the latter half of the Tokugawa period. Neither famines nor epidemics had the devastating effect on the population that they did in earlier times or other countries. The question, then, is why the Japanese had low birthrates during centuries of gradual but clear upward growth of the economy, a rise in income, and an improved standard of living. The answer is that Japanese were limiting family size through a variety of measures, and they were doing so to maintain and improve their standard of living, rather than as a means of coping with dire circumstances, as the older generation of Japanese scholars (that is, the ones writing in the 1930s to the 1960s) has contended. All scholars agree that the Japanese resorted to abortion and infanticide as a means of limiting the number of children within marriage, but studies in historical demography at the village level reveal that these methods were practiced equally in good times and bad, in villages with growing economies, and in those with limited resources for growth.44

Farmers sought to optimize the size of their families. In rural village samples, the average number of children in the completed family from the end of the eighteenth century and well into the nineteenth was only three and a half children. This would have ensured a male heir for most but would have prevented numerous children who would have been a burden on the family and village when grown. Families used a number of means to regulate family size, of which birth control was only one. Some methods were in the form of generalized social customs enforced through social and economic pressure. Women married

in their early to mid-twenties, which delayed childbearing and reduced the number of childbearing years. It was also the custom for only one son in each household to marry. And in periods of economic hardship, marriages were postponed until better years.

Within marriage, one of the methods used to limit children seems to have been sex-selective infanticide, although there is limited statistical evidence for this practice. However, descriptions of abortion, abortionists, and the effects of this practice are abundant, and this form of birth control is known to have been widely practiced throughout Japan. Abortion was an undesirable practice but not a "sin." Infanticide was even condoned by the euphemism that it was a means of "returning" an infant at birth before it had become an individual and a part of society. That is, it was thought of as a form of postpartum birth control. Though these were considered undesirable practices by contemporaries, they were possibly less cruel than the premodern European custom of doing away with unwanted children through carelessness, or gin and laudanum, or abandoning them at church doors.

The social pressure to compel the Japanese to limit family size in a growing economy can be understood only by examining Japan's social values. Although the Japanese are noted for being group oriented, and certainly the Tokugawa village formed a tightly knit group, within each social unit or level the competition was intense. The measures taken to lower to the minimum the number of nonproductive members in the household lead us to conclude that Japanese were seeking to create a population favorable to economic production.

At the heart of Japanese society, rural or urban, commoner or samurai, was the house or family unit, called the ie. The ie was conceived of as a corporate body, and its members were expected to sacrifice personal desires for the benefit of the group as a whole. The goals of the current members of the ie, whether they had been born in the family or were married or adopted into it, were to maintain the current level of prosperity and, if all possible, to increase its future wealth and status.

Wealth and family status were important at all levels of Japanese society. Few samurai, from the middle of the Tokugawa period on, could expect to improve the family status, and even with intense competition by all, they had to struggle merely to maintain their present position. In the village, there was strong incentive to maintain the kakaku, the status of the house. There were no explicit rules governing

45 See the studies cited in the preceding footnote for evidence.
how status was determined, but there was implicit consent as to how it was assigned. The status the family had in past generations held some weight, but the primary determinant was economic position within the village. Status determined who became village headman, who assumed the other posts of village government, and even who sat where at village meetings. 46

To maintain status, it was not enough merely to maintain the same standard of living as in the past; families had to maintain their relative position vis-à-vis other families in the village. When ranks began to change within a village, often conflict would break out as people jockeyed for power. In the tightly knit Tokugawa village, the struggle to maintain position was felt continually – at weddings, funerals, and at times of crisis, such as in a year of poor harvest or when a family in the village needed aid. As more goods came into the village and were purchased by a few, the rest of the people would feel a need to own the same items.

From Tokugawa times comes the propensity for formal gift giving on every conceivable occasion, but especially to superiors and those to whom one owes something. There was an equal emphasis on giving a gift in return for one received, a focus on entertaining in order to maintain business and status relationships, and a penchant for conspicuous consumption. People might eat boiled grains with greens day after day but then splurge at a level unthought of in the West when entertaining guests who had to be impressed, or even at an annual village meeting attended by one representative from each household. Daily life might be very simple and austere so that at appropriate times the family could spend large sums to maintain its status and not dishonor the ie.

Actual household budgets dating from the Tokugawa times are hard to find, but a number of case studies have been pursued by modern historians. For example, one farmer in the 1840s spent 29 percent of his cash income on social obligations. A carpenter in Kyoto in the 1820s who was spending two-thirds of his income on food and fuel spent 7.5 percent of his income on social obligations. An upper-income samurai in the service of the bakufu who was spending just over half of his income paying off loans, debts, and interest spent nearly double the carpenter's annual income in 1779 on social expenses connected with the birth of a daughter. 47 Thus, the Japanese econo-

47 For a fuller description and analysis of these examples, see Hanley, "A High Standard of Living in Nineteenth-Century Japan."
mized on creature comforts for themselves but spent large proportions of their incomes on status goods, gifts to maintain and enhance their social network, and payments or donations to maintain and advance their social status within the community.

A study of the material culture of Tokugawa Japan provides overwhelming evidence that people of all classes sought to improve their social position. Everything from style in dress and housing, appropriate forms of recreation, and even who was officially permitted to drink tea was set down in law. However, a look at the changes in these regulations over time indicates that a lot of people were not strictly conforming to the class codes. Class distinctions were violated, both overtly and covertly, but the violations were so widespread that it was impossible for authorities to enforce compliance. The first violations were subtle; no one wanted to flout the law openly. For example, townsman might wear fine silks, but only as linings to cotton outer garb.

Because the size, design, and decoration of residences denoted status, it was important to prevent persons of low status from adopting the status symbols of their betters. Commoners were forbidden to use styles that belonged to the samurai, and regulations spelled out what was prohibited. In Osaka, as late as 1843, a set of regulations forbade commoners from making doors of cryptomeria, installing fixed reading tables (the shoin or, more properly, the tsuke-shoin), using silver and gold foil on their fusuma, and putting lacquer on posts in the house.48 However, it was impossible for the authorities to police what people installed in their private residences, and more and more of the well-to-do violated such sumptuary regulations.

Just as residences denoted status among the samurai, so they did among the farmers. The most important family in the village was supposed to have the grandest house, with the largest roof and the longest, thickest, and most beautiful posts and rafters. In some villages, status was shown by the number of decorations on the ridge post of the house. In the Niigata area, the chumon-zukuri, an L-shaped plan containing living quarters, work area-cum-kitchen, and stable, seems originally to have been a style used by the samurai. Despite seventeenth-century regulations banning the use of this plan for lower-level samurai and commoners, in time the chumon-zukuri became the favored house style for the upper levels of the farming communities. However, this style does not seem to have been used by those of low socioeconomic status in

48 Shiraki, Sumai no rekishi, p. 135.
the villages, but by designated farmers who owned their own land. Examples of sumptuary laws and status symbols from all parts of Japan testify to the imitation of samurai status symbols by commoners and also to the observance of status differences within local communities.

What was occurring during the Tokugawa period was a mingling of status symbols to reflect income and wealth as well as social group. Those not born into the samurai class could not hope to govern, but if they became rich, they could afford many of the luxuries of life that were supposed to be limited to the samurai. Even by the early eighteenth century a Confucian adviser to the shogunate was opposed to the "increase in consumers [that] has come about because there are no regulative institutions." Country people who migrated into Edo quickly adopted a style of life not considered suitable for commoners: drinking sake, purchasing clothes instead of making them, and installing shōji, ceilings, and mosquito nets in their houses.

The authorities not only knew of the violations of the sumptuary laws and unwritten behavior codes, they themselves helped bring about the loss of clear class distinctions. By the late Tokugawa period, many domains were in financial difficulties and therefore allowed commoners to purchase the privilege of wearing swords and using a surname. The major reason for the blurring of class lines, however, was the growing discrepancies in the income of samurai and commoners, more so in the various daimyo domains than in the lands controlled by the bakufu. Even in Edo, the commoners' incomes were steadily rising while the samurai in the service of the bakufu found themselves with more or less constant incomes and facing a rising tide of goods and services that the townspeople could afford but they could not. Real wages were rising throughout Japan, so that samurai families gradually had to let most of their servants go, and many of the lower-ranked samurai had to take in piecework to supplement their stipends. For example, in the domain of Odawara, samurai produced lanterns, dyed paper, fishhooks, toothpicks, and umbrellas, and seven hundred samurai in Mito notified their domain that they were engaged in part-time work.

If we look only at how Japanese society was supposed to operate, we will find a rigid class society in place throughout the Tokugawa period.

51 For an analysis of this topic, see Kozo Yamamura, A Study of Samurai Income and Entrepreneurship (Cambridge, Mass.: Harvard University Press, 1974).
But Japan lost its class distinctions far more quickly and far more thoroughly than England did, and much of the reason has to be a blurring of class lines before the Meiji Restoration. Commoners were aping samurai in material culture and in cultural ways as well. Textbooks for children provided a common Confucian philosophy and ethic for samurai and commoners alike, and a "samuraiization" of society was at work. But the influence was not just in one direction: The samurai were fascinated by the townspeople's culture and were avid theatergoers and readers of popular fiction, even though they were not supposed to lower themselves to this level.

A major cause for the blurring of class lines was economic. From the eighteenth century on, if not earlier, social class determined occupation, but it did not determine income. Although the average income of samurai was higher than that of commoners, vast numbers of both townspeople and villagers had higher incomes than did the lowest ranks of the samurai. In fact, in some domains, samurai and commoners worked side by side in the same jobs. In Okayama, for example, a listing of persons working in the castle for the daimyo for the 1840s reveals that both samurai and commoners were filling the same positions at the lower supervisory levels.\(^5^2\) Above all, it is important to emphasize the point made in Chapter 3 that the samurai were not a landed gentry whose presence in the village might have reinforced the social differences on a personal level. Nor did they constitute a class of urban absentee proprietors. This separation of the samurai from the rural population meant that there was virtually no daily contact that would reinforce class differences. Instead, members of the farming communities competed among themselves for wealth and position—tenants aspiring to become landowners, and landowners village leaders. People were well aware that they might move up the social and economic ladder within their own class or occupation, but they also knew that being born a samurai was no guarantee of high income.

Although the standard of living gradually increased over the Tokugawa centuries, the changes took place within the framework of the traditional economy and in the context of the indigenous Tokugawa culture, with little foreign influence. Thus the increases achieved are apparent if this period is studied in isolation, but when contrasted with the West, which was undergoing industrialization, Japan seems to have been very backward by the mid-nineteenth century. Westerners who visited Japan in the sixteenth and seventeenth centuries were

\(^{52}\) Ibid., pp. 126–7.
much impressed by the Japanese government, society, cleanliness, housing, and technology. But by the nineteenth century, the Industrial Revolution had so transformed the West that visitors saw little in Japan to impress them, despite improvements that had in fact taken place over several centuries.

The views of these nineteenth-century Westerners, along with the Japanese who themselves felt Japan to be backward in comparison with the Western powers, have continued to color our view of traditional Japanese life. Although the Japanese may have been relatively poor by Victorian standards, the record indicates that they may have been just as healthy; Japanese life expectancy in the nineteenth century was similar to that in the advanced Western industrial nations. And although the Japanese are resource poor by any standard, they have developed a material culture and an aesthetic tradition that are admired throughout the world today.