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From Undemocratic to Democratic Civil Society: Japan’s Volunteer Fire Departments

MARY ALICE HADDAD

How do undemocratic civic organizations become compatible with democratic civil society? How do local organizations merge older patriarchal, hierarchical values and practices with newer more egalitarian, democratic ones? This article tells the story of how volunteer fire departments have done this in Japan. Their transformation from centralized war instruments of an authoritarian regime to local community safety organizations of a full-fledged democracy did not happen overnight. A slow process of demographic and value changes helped the organizations adjust to more democratic social values and practices. The way in which these organizations have made the transition offers important lessons for emerging democracies around the world.

Traditional, community-based organizations abound across Asia (and in many other parts of the world as well) in democratic, democratizing, and non-democratic societies. These kinds of organizations, such as temple associations in China, lineage associations in Nepal, or peasant associations in Indonesia, to name a few, often predate or emerged concurrently with the modern nation-state. In many cases, they exemplify undemocratic civil society: they are often insular, hierarchical, sexist, racist, and highly integrated into a clientalistic local government. If Emile Durkheim’s view of society is correct—that hegemonic discourse and local, everyday practices determine the nature of a country’s social order—then democratic transitions will only be successful to the extent that these undemocratic civic organizations are eliminated, reduced, or transformed.

Given the prevalence of these groups across the globe, it is surprising that so little scholarly effort has been made to examine the conditions under which they can be transformed to become compatible with democracy. (For a comparative discussion of the extent of these types of organizations around the world, see Haddad 2006, 2007a). The vast majority of contemporary research on civil society and democracy focuses on the role of “good” civil society groups in promoting social capital (e.g., Putnam 2000), encouraging democratic civic behavior (e.g., Skocpol 2004; Skocpol and Fiorina 1999), and providing public services (e.g., Smith and Lipsky 1993).
All of the theoretical work on the relationship between civil society and democracy is rooted in studies of Western democracies.\textsuperscript{1} To the extent that cross-national inquiries are undertaken, they are done so through the lens of how the developing (and/or democratizing) country can create new civil society organizations, particularly those engaged in political advocacy, that resemble those found in the “advanced” West (e.g., Cohen and Arato 1992; Diamond 1994; O’Donnell and Schmitter 1986). Research focused on the service-providing nonprofit sector is usually more empirically based and less tied to Western conceptions of the important components of civil society. Instead, it examines the ways in which formally incorporated nonprofit organizations (either domestically or internationally funded) can work productively with the existing state (whether democratic or not) in the provision of public services (e.g., Evans 1997; Salamon et al. 1999\textsuperscript{2}). Both sets of literatures largely ignore community-based organizations. Additionally, there are very few studies of “bad” civil society, and none of them addresses the question of organizational transformation.\textsuperscript{3}

In the case of research on civil society in Asia and in Japan in particular, the previous pattern holds. Scholars, both indigenous and foreign, have tended to use the patterns of civil society participation found in the West (the United States in particular) as the yardstick against which they measure civic participation. Community-based organizations such as neighborhood associations, volunteer fire departments, and parent teacher associations, which are much more prevalent in Japan (and much of Asia) than in the United States, are largely ignored.

As a result, cross-national comparisons of Japanese civil society usually describe it as “underdeveloped” or “weak” when compared with other advanced capitalist democracies (see, e.g., Curtis, Grabb, and Baer 1992; Salamon et al. 1999; Vosse 1999; Yamamoto 1999). Four recent edited volumes explicitly concerned with Japanese civil society all support this conclusion (Osborne 2003; Schwartz and Pharr 2003; Yamamoto 1998, 1999). As I have written elsewhere (Haddad 2006, 2007a, 2007b), I do not agree with this commonly held assessment, arguing instead that Japan’s civil society is equally if not more vibrant than those found in other advanced capitalist democracies, even though its patterns of participation are different.

\textsuperscript{1}I have found some good theoretical work in Japanese that focuses on the relationship between the state and the voluntary sector in the provision of public services, such as Okamoto Masahiro (1997) and Takayori Shōzō (1996). Unfortunately, because these works have not been translated, their contributions to broader thinking in the field have been limited.

\textsuperscript{2}See also the extensive online database associated with Lester M. Salamon’s Comparative Nonprofit Sector Project at http://www.jhu.edu/~cnp/ [accessed October 6, 2009].

\textsuperscript{3}Sheri Berman (1997) offers an excellent account of how Germany’s civil society organizations helped promote Nazism in interwar Germany, but because it is a history that ends with the war, she does not address the question of how those organizations democratized. Similarly, Quintan Wiktorowicz (2000) has written a terrific study of the ways in which nonprofits in Jordan have been co-opted by the state, but it also does not address questions of pro-democratic organizational transformation.
Although political scientists have largely ignored the importance of community-based organizations, Japanese historians (e.g., Garon 1997; Hastings 1995), anthropologists (e.g., Ben-Ari 1991; Bestor 1989; Nakano 2005), and sociologists (e.g., Dore 1958) have done some terrific research on the important role that these groups play in Japanese society. Political scientists are finally taking notice. Two recent books, Robert Pekkanen’s *Japan’s Dual Civil Society* (2006) and my *Politics and Volunteering in Japan* (2007) both take traditional, community-based organizations seriously as an important component of Japanese civil society. However, both books are focused on civil society in contemporary Japan and do not address questions of how these organizations, most of which were state-dominated supporters of the imperial system, have democratized during the postwar period.

These types of community-based organizations are found across Asia and play important roles in building social capital, providing public services, and developing civic skills in democratic and undemocratic countries alike.4 Japan, as the oldest democracy in the region and one of the first non-Western countries to democratize successfully, offers a valuable opportunity to examine the role that these groups play in the democratization process. This article takes one group of community-based organizations, volunteer fire departments, and examines how they have made and are making their transition from undemocratic civic organizations to democratic ones. My goal is that insights from their experience can be utilized not only to enrich our understanding of Japan’s democratization process, but also to offer new perspectives into the democratization processes of other non-Western, late democratizing countries.

This example represents a very “hard” case study. Japan’s volunteer fire departments were fully incorporated into Japan’s imperial military apparatus. In 1945, they were about as far from democratic civil society as you can get: they were exclusive, hierarchical, state-organized, quasi-military organizations. It should have been (indeed, it has been) very difficult for such groups to change. Put another way, if these groups can modify their organizational structure and value system to be more in line with democratic practices, any organization can.

While I do not have sufficient evidence to claim that Japan’s volunteer fire departments have fully democratized, this article argues that their organizational and value transformation has made the organizations compatible with, rather than antithetical to, democratic civil society. Furthermore, there is every reason to believe that the slow process of change will continue to democratize them even more completely.

Selecting a tough case enables me to explore many of the difficulties facing undemocratic civic organizations as they and their societies undergo democratic

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4Lily Tsai (2007) has a terrific account of how the strength of temple associations are a critical determinant of quantity and quality of public service provision in China.
transition. Additionally, although the volunteer fire departments represent a somewhat extreme case, they are not so different from many other traditional, community-based organizations that have organizational practices and values that are not conducive to democratic society and maintain close relationships with their governments. Therefore, the experience of this particular case should be relevant to many other organizations facing similar challenges.

The evidence for this article is drawn partly from archival research conducted in the United States and Japan, but relies especially on interviews with firefighters, residents, and local government officials in Japan. The interviews were collected from five municipalities in four prefectures, ranging from very small (populations of fewer than 20,000), rural communities to fairly large (populations of 100,000) cities. The volunteer departments were “first responders” (i.e., served as the primary fire department for the community) for all or part of four of the five municipalities. During trips to Japan during 1999, 2001, 2002, and 2006, I spoke with twenty-seven volunteer firefighters (both leadership and rank-and-file members), thirteen career firefighters (both leadership and rank-and-file), and two bureaucrats in Tokyo who were part of or related to the Fire Fighting Bureau, in addition to scores of local government officials and members of other community organizations.

This article is organized into three sections. The first section is a very brief history of Japanese volunteer fire departments to set the context for subsequent discussions. The second section provides an overview of how the organizations operate today—their organizational structure, membership, activities, and so on. The third section is the core of the article, in which I present my main argument that the transformation of these organizations was a very slow process in which newer democratic values displaced and transformed some of the older values of the organization. This process came about largely as the result of (1) a demographic shift in the membership and leadership of the organization, (2) difficulty recruiting new members, which was partly the result of (3) competition from other organizations. My argument is made by outlining three strategies that successful volunteer fire departments have pursued to remain relevant in contemporary Japan. I conclude the article with some broader thoughts about what this case teaches us about the difficulties and possibilities of democratic transition.

It remains an open question whether eliminating undemocratic civic organizations is a better strategy for democratic development than attempting to transform them. Certainly many Japanese remain hesitant, even skeptical, about the role that many of their older (formerly) undemocratic civic organizations play in contemporary society (examples include neighborhood associations, young men’s associations, women’s associations, and volunteer welfare commissioners). However, many of these types of groups, in Japan and elsewhere, provide valuable services to their communities as well as offer widespread opportunities to build social capital and develop civic skills. The case of Japan’s volunteer fire
departments demonstrates that while the transformation of an undemocratic civic organization is a very long and difficult one, it can be successful and can greatly benefit its community.

A BRIEF HISTORY OF VOLUNTEER FIRE DEPARTMENTS

Japan’s volunteer fire departments trace their history to the Edo period (1603–1867), when the population started to move to the cities, creating great fire risks. In 1634, the first group of regular firefighters was created to protect Tokugawa Iemitsu’s castle in Osaka. Soon afterward in 1648, the Osaka magistrate enacted a law that was the basis for the first volunteer fire departments in the city. Although it did not organize these unpaid firefighters, the law required residents to help fight fires when they broke out (Osaka Shikai Jimukyouku 1995, 181, 183).

After a devastating fire in 1657 that destroyed much of Edo, the bakufu established regular, full-time fire brigades to protect Edo Castle and the Daimyō residences in the area around the castle. However, while the regular fire brigades protected the entire Edo castle and Daimyō mansions, ordinary neighborhoods did not benefit from them. Some firefighting occurred through the goningumi (an organization of the heads of households from every five houses), but it was not very effective. Finally, in 1719, neighborhood firefighters (machibikeshi) were established. They are the predecessor of today’s volunteer fire department (shōbōdan).5

Firefighters of this period were simultaneously revered and feared. The men often came from the lower classes, and while they were admired for their bravery, their coarse language, rough ways, and tattoos caused them to be shunned by people from the upper classes. Rivalries often formed between the different fire brigades, and they would compete to see which company could be the fastest or the most heroic, and the competitions sometimes led to more hostile interactions as well. Whether admired or despised, Edo-period firefighters provided dramatic and colorful characters for many genres of art during that period and those that followed, including kabuki and bunraku plays and woodblock prints.

When the bakufu fell, the neighborhood firefighters were transferred to the Tokyo government. In 1871, a regular fire department was established, and the neighborhood firefighters were reorganized into a firefighting organization.

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5I use the term “volunteer fire department” as the translation of shōbōdan because that is the most common term for these types of organizations in the United States, where I live and where most JAS readers are located. These types of groups are also called by many other names, including most commonly fire brigades (United Kingdom, Australia, Finland, Germany). See Takatsuji Masami and Tsuji Seimei (1983, 24), Yamamoto Sumiyoshi (2000), and Tokyo no Shōbō Hakyōen Kinen Gyōji Suishin Inkaï (1980).
Three years later, firefighting responsibilities for the metropolitan area were transferred to the Ministry of Home Affairs. In 1895, an imperial ordinance established regulations for firefighting organizations, and a more nationally coordinated firefighting organization directed by the prefectural governors was designed.

Firefighters were reorganized again amid the rising militarism of the Showa period. In 1937, as the international situation worsened with the onset of the Second Sino-Japanese War, the Ministry of Home Affairs dissolved the firefighting system that had existed since the Meiji period, and formed a stronger Civilian Guard. Through an imperial ordinance two years later, Civil Air Defense Units were established across the country, and by April of the same year, there were 1,100 units with 3 million people. Postwar volunteer fire departments are the continuation of these units (Takatsuji and Tsuji 1983, 24–26).

At the end of the war, negotiations with the Supreme Command for Allied Powers were tumultuous over what to do with the Civil Air Defense Units. The Ministry of Home Affairs resisted the separation of police and firefighting functions and did not want firefighting to be turned over to local control. At the end of 1947, the Ministry of Home Affairs was dissolved, and the Ministry of Internal Affairs was established to help the transfer of authority to local governments. By 1949, local governments, which had little experience in governance, found themselves responsible for 110,000 career firefighters and about 2 million volunteer firefighters (Takatsuji and Tsuji 1983, 32). Budget and manpower allocations were determined by individual localities rather than the central government, and leaders were chosen by their units and departments.

After the occupation ended in the early 1950s, the national government passed a series of laws to encourage infrastructure development in order to enhance social welfare; in 1953, 250 million yen in assistance funds (about $700,000 in 1953 or nearly $5 million in current dollars) was given to local governments to finance public building projects. One of the unintended consequences of this giveaway was the undermining of volunteer fire departments. The national government was offering local governments funds to build new fire stations, but they could not be applied toward volunteer fire stations, only city or consortium stations. Also, city officials saw regular fire departments as more important for their public image than the volunteer departments, so when there were limited resources, officials preferred to spend the resources on regular fire departments rather than on the volunteers. As one would expect, conflicts erupted over the proper allocation of the budgets. Often these ended in a consolidation of units and a decrease in the number of volunteer firefighters.

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6The exchange rate in 1953 was 360 yen to 1 dollar (see Takatsuji and Tsuji 1983, 33).
7To see how this discussion played out in Kobe in 1950, see Kobe Shikai Jimukyouku (1978, 1759–62); for one in Otsu, see Osaka Shigikai (1991, 783–84, 800).
Another factor that worked in favor of the regular fire department and against the volunteer departments was new technology. While much more expensive than the old hand pumps, new hydraulics systems dramatically expanded the power of the hoses and reduced the number of people necessary to operate them. A single pump could be operated effectively by three or four people, whereas before it had taken more than twenty men to operate the older hand pumps—two or three to operate the hose and fight the fire and the rest to pump the water to generate sufficient water pressure.⁸

While regular and volunteer departments may have felt rivalry and competed for resources in the past, most are on very good terms now. The two departments have largely divided up responsibilities, and cities and their citizens are finding that volunteer fire departments are a good bargain for municipalities facing budget shortfalls.⁹ Two key elements that have assisted in this amicable division of labor (both discussed at greater length later) are the lack of professionalization among the volunteer firefighters, and the shift in professional firefighters’ primary role to one of emergency medical services rather than firefighting (city and consortium fire departments are the only operators of ambulances in Japan).

Although their administrative structure changed when the war ended, the practices and culture of the volunteer fire departments did not change much. Units were almost exclusively all male, and while participation was technically voluntary, there were strong social pressures to join. Becoming a volunteer firefighter was the path toward manhood. Indeed, as one retired volunteer told me, when he was young, boys who refused to join would be yelled at by their mothers and had trouble finding girls to marry; they were not considered responsible men of their community if they shirked this service.¹⁰

During the war, service was compulsory and supported by an ideological commitment to supporting the nation. Immediately after the war, the mandatory aspect of the service ended, but the ideology of national service continued.¹¹ The nature of the service also remained largely the same: regular weekly or monthly training drills, strict military command structure both while fighting a fire and while socializing, extensive practice of marching and bowing, and so on.¹²

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⁸For a full account of how technological developments affected career versus volunteer fire department relations in the American context, see Amy S. Greenberg (1998, chap. 5).
⁹There was concern that the budget conflicts and the resulting shrinking of the volunteer fire departments that occurred in the 1950s during the Shōwa municipal consolidation would happen again with the Heisei consolidation of 2000s (see Konishi 1999). However, the municipal amalgamations do not seem to have resulted in a precipitous reduction in volunteer units or firefighters.
¹⁰Interview, 2002.
¹¹See Sheldon Garon (2000) for a rich account of how wartime nationalist ideologies were adjusted to support the same behavior; he documents this process for savings campaigns.
Volunteer Fire Departments Today

There are currently 888,900 volunteer firefighters active across Japan, which is almost six times the number of career firefighters (157,860). Volunteers are found in just about every city, town, and village in the country; 96 percent of Japan’s nearly 2,000 municipalities have a volunteer fire department.

Just as they have in the past, volunteer firefighters are responsible for serving their communities in a wide range of roles. Their activities range from the most basic—putting out fires and cleaning up after them—to a wide variety of disaster prevention efforts, including placing tall flags on fire hydrants so that they can be found when the snow is high, teaching proper tempura cooking techniques to reduce fire hazards, running fire drills in apartment buildings, and educating the public about the use of fire extinguishers. Additionally, volunteer firefighters usually play a central role in community activities such as carrying the mikoshi (portable shrines) and keeping the peace during summer festivals.

Men have become volunteer firefighters through the same recruitment process and for the same reasons for centuries. When there is a vacancy (because of a retirement or an expansion in the department), a search for a new member is conducted. Usually, there is an obvious candidate, such as the son of the retiring firefighter or the younger brother of another member. If this method does not work, the volunteer fire chief asks the heads of the neighborhood associations in the relevant district for a recommendation. Once a name is suggested, someone close to the prospective volunteer, such as a parent, sibling, senior classmate, or colleague, is asked to recruit him for the department. Once asked, the social pressure to join can be very strong.

The pressure to join has been lessened in recent years as technological advances have greatly reduced the number of firefighters necessary to be effective. Additionally, fewer and fewer men work and live near to the fire station, and more and more of the volunteers are salarymen who may commute from far away. So, it is no longer the case that every responsible man in a community belongs to the department. Although most men join because they believe it is

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13See the Volunteer Fire Department homepage for data on volunteer firefighters: http://www.fdma.go.jp/syobodan/about/data.html [in Japanese; accessed October 12, 2009].
14See Sōmushō Shōbōcho, Shōbō Nenpō (2006, 60–110) for the number of volunteer fire departments, and Sōmushō Jichigōsei kyoku Shichōsonka (2005, 2) for the number of municipalities. A huge thank you to Michael Strausz for tracking down these numbers for me.
15As will be discussed in the following section, disaster prevention activities expanded in many departments after the 1995 Great Hanshin-Awaji Earthquake. As was the case following the Great Kanto Earthquake in 1923, the disaster served as a catalyst for the formation and expansion of many different types of civil society organizations. See Sally Ann Hastings (1995, 55) for more on the civil society response to the 1923 earthquake; and Iokibe Makoto (1999) and Okamoto (1997) for the effect of the 1995 earthquake.
16Unlike volunteer firefighters in the United States, Japanese volunteers to not stay overnight in the firehouse. They respond to the call from wherever they are, so living nearby is a necessity.
their civic responsibility to do so, there are also strong social benefits of membership. Training, events, and answering calls provide excitement as well as opportunities to make friends through shared experiences. Being a volunteer firefighter also has high social status, especially in rural communities. As one rural volunteer fire chief phrased it, “We don’t have a problem with visibility. Most of the leaders in the community are also volunteer fire department members. Everyone knows who is a member.”17

Once someone becomes a member, he or (now) she must undergo a four-day basic training course. This training is usually held for all new recruits on the same day and is often combined with a public ceremony thanking retiring members for their service and commissioning new members. In addition to this basic training, four days of annual training as well as four days of training at the time of promotion are required to keep skills up to date. These requirements were established by the 1963 Basic Disaster Policy and Fire Service Laws (Sōmushō Shōbōcho 1964, 78; 1999, 188). Although there are considerable opportunities to pursue more advanced training at prefectural fire schools, the basic requirements have remained unchanged, ensuring that the departments retain their volunteer character without extensive professionalization. Beyond these basic requirements, there is an enormous range in the amount of time devoted to training and demonstrations demanded by individual units. For example, among the departments I visited, the number of trainings and events for a particular unit ranged from four to twenty-six per year.

Volunteer fire department units are usually organized according to geographic districts, most commonly elementary school districts. There is usually one volunteer fire department unit for every elementary school district, although the match is not perfect.18 They draw their volunteers from people living in that district, and they are responsible for protecting the people and the structures in that geographic area.

Volunteer fire department units can be roughly categorized into two types: those that are first responders and those that are second responders. First-responder units are those that are located in small towns or on the outskirts of small and medium-sized cities. The volunteer firefighters in these units are usually first to the scene of a fire. They take command of the scene, and when the paid fire department (either a city department or a consortium department) comes, they support the volunteers. Usually the paid department has more sophisticated, larger, and more expensive firefighting equipment, but because they

17 Interview, 2006.
18 There are currently 22,608 public elementary schools (Ministry of Education, http://www.mext.go.jp/b_menu/toukei/001/06080115/005/sy0001.xls [in Japanese; accessed August 28, 2006]) and 24,384 volunteer fire department units (Volunteer Fire Department homepage). Data for elementary schools are for 2006, while data for volunteer fire department units are from 2005. It is likely that this discrepancy is attributable to volunteer fire departments refusing to merge at a time when a municipal merger occurs (interview, 2002).
arrive second, they must follow the directions of the volunteer firefighter who is in command of the fire scene or set up a separate command structure.

Second-responder units are those that are located in highly urbanized neighborhoods. In these areas, it is the city fire department that responds first, and the volunteers are called in to provide additional firefighting power when reinforcements are necessary, help clean up after the fire, assist the victims in seeking shelter, direct traffic, and other support roles. These units usually view their primary role as disaster prevention educators (they spend a lot of time running fire drills for large apartment buildings), as well as to be on hand in the case of a major disaster such as an earthquake or typhoon. Often, both first- and second-responder units exist in the same city, with the former serving geographically spread-out suburban or farming areas and the latter serving a compact urban core. Both types of units are equally involved in non-fighting community activities such as summer festivals.

Most of the funding for volunteer fire departments comes from the local government, although much of this is really from the national government as a part of the local transfer tax. The Fire Bureau of the Ministry of Internal Affairs uses formulas based on population and geographic size to determine the appropriate funds that should be transferred to the locality for fire services, including volunteer fire services. However, localities are not compelled to follow any national guidelines for their volunteer service corps, and indeed the sizes of volunteer fire departments vary enormously. For example, in 2000, among cities with populations between 100,000 and 150,000, the number of volunteer firefighters ranged from 25 to 1,627 (Sōmushō Shōbōchō, Shōbō Nenpō, 2001). Although the city usually provides the firehouses, trucks, hoses, uniforms, and other necessary equipment, the units may also receive small additional funds for extra hoses and other incidental equipment from their local neighborhood association. The amount of these extra funds is usually 10 percent or less of the total budget. Volunteer firefighters usually receive no payment for their service, but they do collect a one-time retirement allowance, which is fixed nationally.19

The Fire Defense Organization Law requires municipalities to pay volunteer firefighters a retirement bonus and to compensate volunteer firefighters or their families for death and disability incurred as a result of injury or illness sustained during official duty (they are treated legally as “special public officials” while on duty) at the same rate as they compensate career firefighters.20 In 1956, the national government established a volunteer firefighters compensation fund to assist local governments in covering these insurance costs, and it was later

19 The retirement allowances are based on status and time served. In 2002, a regular firefighter serving five or more years received 140,000 yen (about $1,200), and a chief serving thirty or more years received 925,000 yen (about $7,700) (see volunteer Fire Department homepage: http://www.fdma.go.jp/syobodan/osirase.html [in Japanese; accessed January 17, 2007]).
20 Fire Defense Organization Law (1947), vol. 226, Articles 15.7 and 15.8.
expanded to include retirement payments. In 1997, the fund became a private, nonprofit corporation called the Volunteer Firefighters Public Service Disaster Compensation Mutual Aid Fund. Currently, more than 90 percent of municipalities have contracted with the fund for the provision of injury and death compensation, and all have joined for the provision of retirement bonuses.  

Most of the funding and basic organizational structure of the contemporary volunteer fire service has remained essentially the same throughout the postwar period. However, this sparse sketch obscures the profound transformation that the organizations have undergone in response to economic, social, political, and cultural change in postwar Japan. The following section will discuss a few of the most pressing contemporary challenges and how volunteer fire departments are coping with them.

SUCCESSFUL STRATEGIES OF INNOVATION AND TRANSFORMATION

It would be impossible to list the myriad ways in which Japan has changed in the nearly three hundred years that volunteer firefighters have been around. A far cry from the feudal landscape portrayed in old samurai films, Japan’s economy is now the second largest in the world; its politics is a democracy that eschews autocratic rule; and its society spends more time worrying about how to take care of its elderly than how honorable coming-of-age men should act. Bucket brigades are no longer used to put out fires anywhere in the country. And yet, volunteer fire departments remain vital to contemporary Japanese life. Nearly a million strong, volunteer firefighters continue to serve essential public safety roles, and they provide equally important social capital-building connections among members of society, demonstrating and teaching to others the value of civic responsibility. This is true only because they have managed to adjust their values and practices to Japan’s contemporary democratic society.

As with other civic organizations that were mobilized by the state during the war, Japan’s volunteer fire departments have had to change dramatically during the postwar period. The 1947 Fire Defense Organization Law returned firefighting to local control and stipulated the establishment of a voluntary fire corps. Membership plummeted for the two decades following the occupation, from more than 2 million in 1952 to slightly over 1 million in 1970. As discussed earlier, this dramatic decline was largely attributable to two factors: the removal of mandatory membership requirements and the implementation of a national program to build up local infrastructure, including career fire departments at the expense of volunteer departments.

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22 Article 9 of the Fire Defense Organization Law (Shōbō Soshiki Ho) stipulated the establishment of a fire defense headquarters, fire stations, and voluntary fire corps. This article essentially renamed Civil Air Defense Units, and put the new organizations under local control.
More recently, volunteer fire departments have seen a gradual reduction in their members, losing approximately about 0.5 percent a year for the past thirty years. In order to remain viable, they have had to transform their culture from a militaristic, hierarchical, male-dominated one to a culture with more humanitarian, egalitarian, and open practices that are more appealing and supported by younger generations of Japanese. As postwar-born Japanese began to fill the ranks of the departments and take over leadership positions, departmental transformation has become more apparent and more complete.

One anecdote that exemplifies this cultural shift comes from the medium-sized city of Sanda in Hyogo Prefecture. I interviewed a small group of volunteer firefighters after one of their training sessions at a nearby temple in 2002. I asked the unit chief what had changed the most in the last ten years or in the time he had been with the department (thirty years). Without hesitation, he said, “The authority structure. After the war it was a very strict structure, and no one could complain or say anything. It used to be that the top [the chief] would say something, and the bottom [the new recruits] would bow repeatedly and say ‘yes, yes.’ Now, it is the opposite—the bottom says something and the top bows and says ‘yes, yes.’ You used to just say things, now you have to ask people to do things.” The other firefighters in the room roared with laughter in agreement.

The process of democratization requires both a transformation in the values and practices internal to the organization, as articulated earlier, and also a change in the ways in which the organization relates to the government and to the broader society. If it is done well, the process creates a virtuous circle: the civic organizations adjust their internal values and practices to keep and recruit new members. Those new members then help the organizations find new ways to serve the community better. To the extent that the community values these new services, they will provide financial, organizational, and legitimizing support to the organization, enabling it to attract new members and carry out its missions. (For more about how organizations and communities raise participation rates, see Haddad 2004.)

Three strategies have been particularly successful in promoting this virtual circle for volunteer fire departments in Japan: increasing the visibility of the organization, diversifying the membership to include different types of people, and expanding the range of activities to meet contemporary needs. Similar strategies have also been used by other community-based organizations in Japan that also were co-opted by or incorporated into the imperial authoritarian government during the war, such as neighborhood associations (jichikai), volunteer welfare commissioners (minsei’in), and women’s associations (fujinkai).

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23See the Volunteer Fire Department homepage.
Increasing Visibility

Volunteer firefighters have no problem with visibility in rural areas: everyone knows who they are, many of them serve other community leadership roles, and they have primary responsibility for fire and disaster protection in the community. This situation is not the case in urban areas. In large cities or urban core areas of smaller ones, citizens are often totally ignorant that their community even has volunteer firefighters. For example, the city of Tokyo currently has more than 26,000 active volunteer firefighters, yet it is unlikely that the majority of Tokyo’s inhabitants are aware of their presence.24 Although urban volunteer firefighters may not have primary firefighting responsibly, they are still vitally important in times of large-scale disasters such as earthquakes and typhoons, which hit Japan frequently. For example, the volunteer firefighters in the Kansai area were widely credited with saving hundreds, even thousands, of lives during the 1995 Great Hanshin-Awaji Earthquake.25 These firefighters also serve the same kinds of social capital building, community enhancement activities of their rural counterparts. Functions that may, in fact, be more important in urban areas where a community’s social connections tend to be weaker.26

One of the most popular ways to increase the visibility of the volunteer firefighters in urban areas has been to stage large public demonstrations of their skills. These events, often called firefighting festivals, usually have at least four components: an acrobatic performance of volunteers atop tall ladders reminiscent of Edo-era firefighting, a demonstration of a variety of firefighting techniques including getting a hose ready and spraying a target (or, more dramatically, a helicopter rescue from a building), a community-participation activity such as a high school band or an elementary school dance where the participants are dressed up in adorable mini–volunteer firefighter happi coats, and, of course, food—roasted squid on a stick, udon noodles, and so on. There may also be public safety workshops such as how to use a fire extinguisher or perform basic first aid.

These events are usually funded and organized by the city, but they also require hundreds of hours on the part of the volunteers for the preparation and execution of the event. Especially with opening ceremonies of happi coat–clad firefighters atop tall wooden ladders, the festivals glorify the long history of the volunteer fire departments, and create a sense that, like New Year’s.

25For excellent accounts of the role of volunteer firefighters in the rescue and reconstruction effort, see Henshukyoku (2000) and Konishi Satchio (1998).
26Of all of the municipalities I visited for this study, Kashihara in Nara Prefecture had the greatest urban density and was the only community where the volunteer firefighters were not the first responders in any part of the city. It was also the department that had experienced the greatest growth in recent years. It was one of the most active departments I visited and was very aware of its community-building functions, in addition to its public safety roles (see Konishi 1999 for more on this topic).
festivals, the events have a tradition going back hundreds of years. In fact, they are often new creations. The events are carefully choreographed to create a historical and community image for the volunteers. Integrating other community members such as elementary and high school students helps ensure turnout and fosters the image of the volunteer firefighters as the center of community life. These events help reinforce the department’s traditional values of glory, honor, and service, even as they also demonstrate newer democratic values of equality, inclusion, and civic participation.

These public festivals, as with the more competitive firefighting tournaments, offer an opportunity for the volunteers (and the career firefighters, if they are also participating) to show off their skills to the public in a controlled situation. The events act as an incentive for the firefighters to work hard on their training so that they look good during the performance. In most cases, it is too soon to tell whether these events have helped recruitment efforts, but they have certainly increased the morale and motivation of the volunteers, so more and more cities are hosting firefighting festivals and those that already have them are finding ways to have them more often (e.g., every year instead of every two years).

In addition to the grandiose firefighting festivals, many volunteer fire departments are finding other, smaller ways to increase their visibility. Often, these methods involve techniques to increase community awareness of the volunteers and enhance community participation in civic tasks to enhance public welfare. Sometimes the methods are tied to performing their usual tasks, and sometimes they involve new (or resurrected) activities. Examples of these public relations measures tied to old traditions include bringing their fire trucks and wearing their *happi* coats when they participate in neighborhood festivals rather than just following behind the parade or blending in with the crowd.

In other cases, volunteer firefighters have renewed the time-honored practice of *yo-mawari*, in which a small group of volunteer firefighters, often accompanied by other members of the community, patrol the neighborhood at dusk, banging two wooden blocks together in a particular pattern chanting *hi no yo-jin* (be careful of fire) to remind people to turn off their gas (formerly coal-burning) stoves and heaters during the winter. All of these activities help the community become more aware of the presence and activities of the volunteer firefighters, giving members pride and making it easier to ask new recruits to join. The rituals also help define and reinforce community identities, responsibilities, and boundaries.

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29 To view new public relations recruitment movies promoting the volunteer fire departments, visit http://www.fdma.go.jp/syobodan/movie.html [in Japanese; accessed September 4, 2006].
Diversifying Membership

Traditionally, the typical volunteer firefighter was in his mid-twenties and worked for a small, family-owned business or farmed. He joined the department immediately after high school and lived and worked within blocks of the firehouse. There are very few men who meet that description in contemporary Japan. The result has been a recruitment problem for volunteer fire departments. Departments have looked to two groups in particular for new members: salarymen and women. The former required some slight modifications in training schedules and adjustments in the expectations of service. The inclusion of the latter group has been more of a challenge since the social aspect of the organization has been defined primarily by its masculinity.

In 1965, only about one-quarter of volunteer firefighters were salarymen; now, almost three-quarters are.30 According to one fire chief, this shift raises two problems for the department. His first worry was that salarymen tend to donate their time and energy to their company and work to protect the business district instead of their home neighborhoods, often joining the commercial district fire squad rather than their neighborhood volunteer fire department. Second, firefighting, in his words, “needs muscles.” His implication was that men who sit behind desks all day are often not in sufficient physical condition to be good firefighters.31 Both of these problems are rectified by making sure that the salarymen who volunteer come to trainings, so they are sufficiently prepared and motivated to fight a fire when necessary.

Motivation and training do not solve the problem of availability, however. Departments are often understaffed during the day because so many of their members commute to work, leaving a disproportionate burden of daytime emergencies on the small group of members who still work in the area. Fortunately, most fires happen in the evenings and weekends when the salarymen are more likely to be at home, so the departments are usually fully staffed when the alarm is sounded.

Another way to solve the problem of fewer recruits and low daytime availability is to allow women to become volunteers, as more of them are in the community during the daytime and they double the population of possible recruits. Although the overall number of volunteer firefighters has been declining slightly every year for the past several decades, the number of women has been rapidly increasing. For example, during the last fifteen years, the total number of volunteer firefighters has declined by 9 percent, but the number of women has increased by 720 percent. In spite of their dramatic increase, women still represent only 1.5 percent of all volunteer firefighters in Japan.32

3027 percent in 1965, 70 percent in 2005 (see the Volunteer Fire Department homepage).
31Interview, 2002.
32See the Volunteer Fire Department homepage.
Fully integrating women into the volunteer fire department would fundamentally change the nature of the organization, which acts as a men’s club in many respects. Although their activity is firefighting, in some ways it could equally be football—physically demanding, a team effort, and requiring regular training. In rural areas, the membership often overlaps almost perfectly with the young men’s association (seinendan). Much of the socializing after training or events takes the form of drinking at the firehouse with the other men. There are co-ed activities, such as an annual trip to the hot springs with wives, but they are secondary to the main activities that are all male. Including women in all of these activities would fundamentally change the nature of the social interaction.\footnote{For a terrific account of the masculine culture of volunteer fire departments and the fetishism of firefighting equipment in the American context, see Greenberg (1998, chap. 2).}

In my travels, I heard about departments where women have long been core members and are likely to be fully integrated into their departments. Usually, they were small fishing communities (often islands) where the men spend all day in the water fishing, so the women have had to take responsibility for daytime firefighting in the community for centuries. However, I believe that these cases are rare. I think that it is much more common for women firefighters, if there are any, to be segregated into a separate unit that has different responsibilities. A systematic survey would be necessary to confirm this suspicion, but that has been the case in the places where I have conducted research. Of the five departments where I conducted interviews, three were all male and two had women members. In the two departments that had women members, Kashihara City in Nara-ken and Nishinoomote City in Kagoshima-ken, the women were not fully integrated. They formed their own units, and while they might train with the men occasionally, they did not answer calls, nor did they fight live fires.

After the devastating earthquake in 1995 in nearby Kobe and in conjunction with national initiatives to increase local disaster prevention programs, Kashihara decided to expand its volunteer fire department by 79 percent (to a total of 258); it added men to the existing units, and created two new men’s units and one all-women’s unit. The women’s unit and its unit chief have the same legal and organizational standing as the men’s units (e.g., women members are entitled to the same death, disability, and retirement benefits as the men). However, the women’s unit has several distinct features.

Unlike the men’s units, which are based on elementary school district lines, the women’s unit draws its members from across the entire city. This has several repercussions. First, the women do not have a firehouse of their own. Although recruitment posters picture women with hoses spraying buildings, the women’s unit does not have any equipment other than their uniforms, and they do not fight live fires. Second, because the women are drawn from the entire city and
because their participation is more recent, they are recruited differently and join for different reasons than the men. While the men generally join because they feel it is their civic responsibility to do so and because they were asked, women join because they think it will be fun.\textsuperscript{34} Although they take their work seriously and it is very important to the community, their motivation for joining resembles participation in a hobby club more than it does a life-threatening community obligation. They join either because they have a friend already in the unit or because they are inspired by one of the volunteer recruitment campaigns conducted by the city.

Kashihara is a dense, urban city with a population of about 100,000 people. All of the units of the volunteer department fall into the category of second-responder units, as the city fire department can reach the entire city ahead of the volunteers. This means that both the men and the women are rarely called on to fight fires directly, and their primary activities are fire prevention and disaster readiness. The men’s units still have regular trainings with the hoses and are occasionally called on to help fight or clean up after a fire. The women volunteer firefighters join the men’s local unit for monthly trainings (the thirty women are spread out all over the city, so the number of women at any given monthly training would be two to six, depending on the district). However, they do not answer calls with the men, focusing instead on fire prevention activities and community outreach.

The women’s unit has taken the initiative to start a whole series of fire prevention and safety programs in which the men’s units do not participate. Examples include a program in which the firefighters visit elderly residents who are living alone. After an initial introduction by a volunteer welfare commissioner, a pair of volunteer firefighters brings a \textit{bento} (box) lunch and performs a house fire inspection, checking for fire hazards such as a poorly placed stove, an overloaded electrical outlet, or a dangerous incense burner in a Buddhist alter. The women’s unit also took the initiative to design and distribute large-print emergency number placards for the elderly to keep by their phones for easy reference. They lead elementary school fire-prevention parades at which the children bang the traditional wooden blocks together and learn fire safety. Their unit has a special role during the annual firefighting festival as a color guard, marching in formation with bright flags. The volunteer fire chief is very proud of them and is pleased with their accomplishments and the new image that they have brought to the department.\textsuperscript{35}

\textsuperscript{34}For more about how these two different attitudes toward volunteering influence community volunteer participation patterns, see Mary Alice Haddad (2007a).

\textsuperscript{35}Most of this information came from interviews conducted in Kashihara during 2002. Some information can also be found in Henshukyoku (2000), which talks about the expansion of the Kashihara department in response to the Hanshin-Awaji earthquake.
Nishinoomote, a city with a population of about 20,000, has 320 volunteer firefighters, of whom one is a woman. She joined the department about three years ago with the goal of forming an all-women’s unit (the chief expects that there will be at least ten members in the unit when the recruitment drive is finished). In her early thirties, she joined because she wanted to train to compete in the national all-women’s firefighting competition. Nishinoomote planned to host one in 2009 and wanted to field a good team. In these events, hundreds of women, both those who are firefighters (career and volunteer) and amateurs, show up for the competition and try out their skills on a variety of firefighting techniques (hitting a target with water, carrying a hose up a ladder, etc.).

According to the volunteer fire chief, Nishinoomote’s department has always been open to anyone, but she was the first woman who wanted to join. Her father, brother, and husband are all members, and as a physical education major in college, she was interested in the challenge. As with the women in Kashihara, she does not fight live fires. She concentrates her efforts on training for the competition, disaster prevention, cleanup, and some emergency medical work. She does not practice with the men, but rather with other women whom she is trying to recruit for the new unit. Also similar to Kashihara, the new women’s unit in Nishinoomote will not be geographically limited like the men’s units but will draw women from the entire city.36

Both Kashihara and Nishinoomote have found a workable compromise between traditional and contemporary values of community service. Traditional values emphasized a man’s duty to join his volunteer fire department to protect his and his neighbors’ family and homes. Contemporary values hold that anyone who is interested in an activity should be able to participate, including women. These two departments have brought women into their ranks and they are treated with respect. The women enjoy their services, and in the case of Kashihara, have found ways to bring greater relevance and visibility to the entire department. However, the male culture of the departments has been carefully maintained. The men continue to meet after trainings for male bonding and drinking sessions. The men are still the ones who engage in the dangerous activity of fighting live fires, while the women are protected, helping with cleanup and community outreach. None of the volunteer firefighters whom I spoke with in either department had any complaints about this arrangement. Everyone was very happy with the direction that their departments were going.

Expanding Activities

One of the most important ways that volunteer fire departments are adjusting in order to remain relevant in contemporary society is to expand their activities into new areas. In a pattern typical of undemocratic civic organizations, the

36Interview, 2006.
direction of the expansion in activities is usually determined by a combination of both local community and national government initiatives.

Japan is a densely populated country where many of the buildings are made of wood. Fire has always been a serious concern, especially in a context in which earthquakes and typhoons can ignite fires and disrupt regular firefighting capacities. However, modern construction techniques and fire alarms have dramatically reduced the incidence and damage as a result of fire. In 2003, only 3 percent of the more than 2 million calls to fire departments were attributable to fires. These technical advances are one of the reasons the volunteer firefighters are able to expand their activities beyond simply firefighting. Additionally, their new roles give them a method to introduce new values into their service missions without entirely giving up their old roles and values.

While some of their new activities, described in the section on visibility earlier, are primarily aimed at public relations, most are in the area of disaster prevention and preparedness. After the Hanshin-Awaji earthquake killed 6,000 people in 1995, communities all across Japan redoubled their efforts to make sure that their neighborhoods eliminated possible fire risks and their citizens knew what to do if disaster should strike. Their efforts were supported by the national government, which issued a call for the creation of disaster prevention associations in communities. Thousands of communities across the country responded by forming disaster prevention associations. Organizationally, these groups usually take the form of a committee within a local neighborhood association, although sometimes they may form a separate group.

Disaster prevention associations engage in a wide range of activities designed to increase the safety of their neighborhoods. Although some of their activities can be done by the members themselves, such as fire drills, emergency kit assembling, or yo-mawari, many of their activities require the assistance of firefighters. Workshops on how to use fire extinguishers or short courses on basic emergency medical assistance require experienced instructors. While career departments usually engage in some of these citizen-training exercises, they often do not have the personnel to respond to all of the requests for this kind of service. In the case of Kashiwara, as mentioned earlier, the volunteer fire department was expanded explicitly to meet this rising demand for community disaster training programs.

In addition to workshops in neighborhoods or large apartment buildings conducted at the request of a local disaster prevention or neighborhood association, volunteer fire departments have also expanded their disaster prevention efforts into schools, workplaces, and larger communities. Along with the regular population, groups of special needs citizens, especially elderly people living alone and

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children, have also been targeted for special trainings. The range and frequency of these efforts depends entirely on the department, and often on the unit. Some departments still focus on basic disaster preparedness and firefighting skills for their own members and keep the number of trainings low to make the time commitment a reasonable one for their members, who, after all, all have regular jobs. Other units are exceptionally busy with trainings and workshops several times a month rather than just a few times a year.

All of the activities of the volunteer fire departments help promote safer communities. Whether it is fighting a live fire, conducting a safety demonstration in an apartment building, or inspecting the house of an elderly person for fire hazards, all of these efforts help Japanese communities prevent disasters and be more prepared when they strike. From the perspective of organizational development and growth, the expanded range of activities has also helped the volunteer fire departments remain relevant to contemporary lifestyles and living situations. Additionally, they enable the organizations to demilitarize their organizational culture and expand their community service mission and corresponding democratic values. Finally, many of these new activities also assist the departments with public visibility. The department’s greater visibility helps to build bonds of social capital among members and demonstrate and promote values of civic responsibility to the rest of the community. Neighbors find out who among them is a volunteer firefighter, and they learn to respect the skills and dedication of those members of their community who are donating their time and energy to keeping everyone safe.

CONCLUSION

Altering the practices of an organization to reconcile older ideas of civic participation with new democratic values is one of the most important aspects of the transformation of an undemocratic civic organization into a democratic one. In this regard, Japan’s volunteer fire departments represent a success story. In the last half century, these organizations have changed from hierarchical, all-male organizations that were an integral element of the imperial military into more egalitarian, inclusive local community service organizations.

While the distance that Japanese volunteer fire departments have traveled has been impressive, the story of their evolution is not one of dramatic change. The institutional structure of the departments is nearly identical to the one created immediately after the war. Furthermore, many of their core values have not changed over the centuries: glory, honor, and service. Their primary mission has also remained identical: protect the community.

Japan’s volunteer fire departments have changed slowly over time. Recruitment pressures led to an alteration in the expectations of service and the development of active public relations efforts. As the membership grew more diversified and the proportion of postwar-born members increased, exclusive
and hierarchical practices gave way to more inclusive, egalitarian ones. New members brought in new ideas for ways to serve the community. To the extent that these new activities have been welcomed, young people are continuing to join and communities are continuing to support the organization.

Japan’s volunteer fire departments have found a way to merge their older values of civic responsibility with newer, democratic values of equality and inclusion. Older values of the departments (and the broader society) that stressed the importance of strict military obedience and hierarchy did not fit with new democratic values; they have since fallen by the wayside in favor of a more egalitarian, collegial relationship among the volunteers. Masculine values of honor and bravery have been maintained, but they have been supplemented by more feminine values that seek to serve the weaker members of the community—elderly and children. The shift in responsibilities from purely firefighting to greater involvement in fire and disaster prevention efforts has altered the image of the volunteer firefighter from one that resembled a soldier to one that looks more like a community activist.

These changes cause concern among the leadership of the volunteer firefighters even as they remain confident about the continuing relevance of their organization. Speaking about the decline in the number of volunteers in his area (his department had been reduced by 500 in the previous ten years, although it was still quite large for a city of 100,000 with 1,219 volunteer firefighters), one volunteer chief raised two concerns. Although regular firefighting capacity was fine—the new equipment made it possible to operate a pump with far fewer people than previously—widespread disasters required more people because electric and gas-powered equipment often does not work in those situations.

His second concern was more cultural than technical. He worried that the feeling of service has changed among today’s Japanese. When he was young, all the men joined their volunteer fire department. Becoming a volunteer firefighter had high status and was pretty automatic. Everyone felt a responsibility to join. That is not true any more. He said that society is becoming more individualized and people are less willing to join. He and his colleagues are thinking about what to do to make the organization more visible, more appealing to young people, and perhaps, open to women. Although he did not phrase it this way, he articulated one of the key challenges of democratization—no longer can membership be required, it must be inspired.

On the other hand, this same chief pointed out, “These organizations won’t disappear. There is a natural responsibility to protect your own neighborhood. Historically, the volunteer fire department came before the city fire department, and they will remain important.” This civic responsibility to protect ones own community transcends democratization. The most consistent value demonstrated by these volunteers is a commitment to community service. The way that the community is served has evolved as needs have changed, but their dedication and feeling of civic responsibility to protect their community has been a constant across the generations.
The case of Japan’s volunteer fire departments demonstrates that the process of democratization in civil society is a very long and inconsistent one. While some institutional changes were certainly required (e.g., legally transferring responsibility to the local government and making membership voluntary), many of the truly meaningful changes were slow evolutions in the practices and values of the organization and its members. Furthermore, the resulting organization certainly looks much more like its predecessor than it resembles volunteer fire departments in other democratic countries, such as the United States.

Change is always difficult, and democratization has costs. Leaders of civic organizations seeking to remain relevant in a democratizing society are particularly aware of some of these costs. Many, such as the volunteer fire chief quoted earlier, worry that the freedom that comes with democratization will lead to a disintegration of community values. However, for this author, the example of the adaptation of these volunteer fire departments is a hopeful one. This organization, which once represented the ideal of Japanese imperial militarism, now represents vibrant civic participation compatible with Japan’s democratic society. Although it is unlikely that all undemocratic civic organization could (or indeed, should) change, the case of Japan’s volunteer fire departments shows that transformation can take place even in very unlikely circumstances.

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List of References


SÖMUSHŌ SHÔBÔCHO [Fire and Disaster Management Agency]. Various years. Shōbō Hakusho [Firefighting white paper]. Tokyo, Japan.


