ORIGINAL ARTICLE

# The Cultural Context of "Successful Aging" Among Older Women Weavers in a Northern Okinawan Village: The Role of Productive Activity

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Abstract Basho-fu (Musa liukiuensis) weaving has long been part of the cultural identity of Ogimi villagers and has continued in the village as a cottage industry despite its almost complete disappearance throughout the rest of the Ryukyu archipelago. It has survived largely due to the concerted efforts of a few villagers and is now carried on mainly by middle-aged and older women. Almost every elderly woman in Ogimi has at least some experience in *basho-fu* weaving, and most still participate in some stage of the production process. Aged women form the bulk of the core group of workers that carries out the labor-intensive u-umi (spooling) and u-biki (fiber-cleaning) activities. Without this core group of elderly women, the whole production process would be in jeopardy. Thus, older women in Ogimi play a key role as valued workers in maintaining the basho-fu production process. In exchange for their continued participation, these elderly women receive symbolic capital in the form of respect and honors, as well as wages for their labor. We argue that participating in traditional basho-fu weaving helps these older women maintain an active engagement with life as healthy and productive members of society, a role that has been culturally sanctioned and has taken on moral import in Japan's rapidly aging society. Interestingly, "doing basho" may be considered one means to help achieve successful aging in this particular cultural context.

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# Introduction

The term *successful aging* has a long history in the gerontological research literature, appearing in the first issue of *The Gerontologist* in 1961. In subsequent years it took on different meanings depending upon time, place, and cultural context. In its current, most well-known incarnation (Rowe & Kahn, 1998, p. 38), successful aging has come to refer to "the avoidance of disease and disability, the maintenance of high physical and cognitive function, and sustained engagement in social and productive activities." In a climate of heightened concern with the capacity of societies to deal with increasingly aging populations, the concept of successful aging with its emphasis on the maintenance of health and productivity has become an important part of the current gerontological research literature in Western countries (Callahan, McHorney, & Mulrow, 2003; Rowe & Kahn, 1998), as well as in Japan (Shibata, 2002; Shimonaka, Nakazato, & Homma, 1996) and, indeed, throughout the world (Butt & Beiser, 1987; Torres, 1999).

One problem with a universal definition of successful aging is that it is a relative concept, located within a given cultural context, with accompanying culturally relevant norms and values. Therefore, it is not surprising that despite the wealth of research about successful aging, the international gerontological community has yet to come to a common understanding of exactly what it means or even how to define it. As such, many different factors have been used to define "success," including: length of life, physical health, psychological health, cognitive abilities, social competence, life satisfaction, subjective well-being, personal control, active engagement with life, and productivity, among others.

The current paradigm (Rowe & Kahn, 1997) can also be criticized for its lack of attention to the following important dimensions of the aging experience: existential domains of late-life adaptation (Crowther, Parker, Achenbaum, Larimore, & Koenig, 2002; Langle, 2001), differences between the young-old and the oldest old (von Faber *et al.*, 2001), gender differences (Bourqe, Pushkar, Bonneville, & Beland, 2005), ethnic differences (Consedine, Magai, & Conway, 2004), differences in experiences of life events and coping mechanisms (Snow & Pan, 2004), and differences between researchers' and older adults' views of what makes for a successful aging experience (Phelan, Anderson, LaCroix, & Larson, 2004; Strawbridge, Wallhagen, & Cohen, 2002; Tate, Leedine, & Cuddy, 2003). Finally, criticism has been leveled on the successful aging paradigm for vesting too much responsibility within the individual for achieving this normatively desirable state, thus risking further marginalization of high-risk segments of society, such as the poor and older women (Holstein & Minkler, 2003).

Some studies have focused on trying to elucidate what successful aging means in different cultures or among different ethnic groups (Clark & Anderson, 1967; Consedine *et al.*, 2004; Giles & Dorjee, 2004; Sakihara, 2004; Torres, 1999). One of the most well-known and ambitious cross-cultural studies on successful aging was Project AGE (Keith *et al.*, 1994). Fry *et al.* (1997, p.100) have described the major goal of the project as being "an investigation, through comparative field studies, of how different kinds of communities shape the experience of aging and pathways to well being for their older members." In other words, Project AGE examines how different cultures define "a good old age." Interestingly, although Project AGE found many differences in the meaning of successful aging between cultures, the study also revealed a number of commonalities. For example, the study found

that health and material security were desirable across all societies studied, and lack of health (and functionality) was the singularly most important factor detracting from a successful old age and leading to negative consequences for quality of life.

Yet studies have also shown that failing health and functional decline do not automatically decrease life satisfaction in old age. For example, Collins (2001) found that among contemporary Inuit in Canada, many of whom were in poor health, ideological rather than material contributions were central to their perception of a good old age. In this cultural setting, successfully aging elders were those who were willing to transmit their accumulated knowledge to junior members of their community. This was especially the case for older women. Comparative research on aging has also shed light on the importance of control of wealth, people, and knowledge, and how this facilitates social participation and compensates for failing health and physical decline (Silverman, 1987; Sokolovsky, 1997a, b). In other words, compensatory mechanisms exist to help deal with the aging process in all cultures.

As was indicated earlier, the current paradigm of successful aging in American gerontological circles was first put forward in the late 1980s by Rowe and Kahn (1987). After a decade of research, Rowe and Kahn (1997) summarized the central findings from a number of studies and proposed a conceptual framework for successful aging that considered some pathways or mechanisms making for a successful old age.

Their model includes three main components: low probability of disease and diseaserelated disability, high cognitive and physical functional capacity, and an active engagement with life. Rowe and Kahn (1997, p. 433) explained:

Successful aging is more than absence of disease, important though that is, and more than the maintenance of functional capacities, important as it is. Both are important components of successful aging, but it is their combination with active engagement with life that represents the concept of successful aging most fully.... While active engagement with life may take many forms, we are most concerned with two-interpersonal relations and productive activity....An activity is productive if it creates societal value, whether or not it is reimbursed.

Although defining an activity as "productive if it creates societal value, whether or not it is reimbursed," helps to avoid some potential ethnocentric pitfalls, there is still a lingering sense that this definition encompasses a distinctly American view of successful aging. For example, the focus on *success*, as pointed out by Torres (1999), seems very much connected to American ideas surrounding success and failure. In this sense, the paradigm is highly idealistic and potentially hindering to most older people, the vast majority of whom would be excluded, as only an elite few manage to completely avoid disease and disability as they age—a seeming precondition for remaining actively engaged with life.

Productive aging in social and cultural context

Despite these limitations on Rowe and Kahn's definition, Glascock's (1997) review of death-hastening practices in societies around the world hints that the value of staying productive in some sense or another as one ages may also approach a cultural universal. His work suggests that death-hastening practices are directed primarily toward individuals who have passed from being culturally defined as active and productive to being inactive and nonproductive members of social groups. In large-scale capitalist societies such as America, according to Kaufman (1986), whether or not one is engaged in productive activity has even come to help define the point at which an individual is considered "old;" that is, older

people are not considered old by their family and friends, nor do they think of themselves as old as long as they remain active and productive in some meaningful sense.

The relative cross-cultural significance attached to remaining productive or engaged with society in some meaningful sense as one ages is likely more variable than that of the more universal importance of health and functionality. Moreover, definitions of "productive" would assuredly take on some very culturally distinctive forms. For example, among the Ju'huansi of Botswana, sharp and creative complaining about lack of proper care, even when it contradicts the facts, is considered a constructive and productive way of reminding society about the cultural norms of supporting even the most frail elders (Rosenberg, 1997).

In American social gerontological circles, the importance of remaining a socially engaged and productive member of society is vigorously debated in the form of activity versus disengagement theories. Disengagement theorists, for example, argue that the gradual withdrawal of a person from functionally important social roles is good for both the individual and society. It is functional for society because it opens up these roles for others and thus promotes social equilibrium. It is also advantageous for the individual in that it allows a person with diminishing energy to adapt to aging and impending death. Some studies support this interpretation. For example, there is some evidence from studies of the oldest old in America of a greater acceptance of dependency and a gradual surrendering of control which do not necessarily reduce levels of well-being (Johnson & Barer, 1997). In other words, staying active and in control may be unrealistic toward the end of life, and successful aging may even come to depend, to a certain extent, upon having the wisdom to accept one's dependency and lack of control. Accordingly, some individuals may intentionally narrow social boundaries and disengage from what they have come to regard as burdensome social ties and activities. Thus, for more functionally disabled elders, disengagement can become an effective method of adaptation for dealing with impairments (Bukov, Maas, & Lampert, 2002).

Activity theory is a counterpoint to disengagement theory, because it claims that successful aging can be achieved by maintaining or replacing roles and relationships. Some research supports this stance as well. In general, research shows that individuals who are employed or have a higher socioeconomic status tend to have better physical and mental health and lower mortality risks than their unemployed or less affluent counterparts, although this relationship is typically stronger for men than for women and must be further qualified in terms of stage of the life course, and life situation (Adler *et al.*, 1994; Feinstein, 1993; Kessler & McRae, 1982; Leeflang, Klein-Hesselink, & Spruit, 1992; Macintyre & Hunt, 1997; Morrow-Howell, Hinterlong, Rozario, & Tang, 2003; Stolzenberg, 2001; Weiss, Bass, Heimovitz, & Oka, 2005). Such research has contributed to a knowledge base that encourages the development of social programs and policies that maximize the engagement of older adults in volunteer roles. For example, Japanese government policies encouraging active participation of elders in part-time work, volunteer roles, and other activities that encourage the formation of a sense of purpose or *ikigai*<sup>1</sup> have come to be viewed as increasingly important now that rapid population aging has been gaining

<sup>&</sup>lt;sup>1</sup> There is no term in English that serves as a direct translation for the Japanese term *ikigai*, but it might best be thought of as one's *raison d'etre* or reason for living. Mathews (1996, p. 12) translates the term as "what makes life worth living" and notes that *ikigai* may be conceived of either as the "object that makes one's life worth living" (i.e., one's work, family, or dream) or as the "feeling that life is worth living." The term has taken on increasing importance in an aging Japan and the Ministry of Health, Labour, and Welfare included it as part of their health promotion strategy (Healthy Japan 2010) to encourage older people to achieve better health and more fulfilling lives (see also Nakanishi, 1999).

momentum (Bass, 1996; Clark & Ogawa, 1996; Fujiwara, Sugihara, & Shinkai, 2005; Weiss *et al.*, 2005; Yonemura, 1994).

On the other hand, activity theory has been criticized for neglecting issues of power, inequality, and conflict between age groups. Both activity and disengagement theories grew out of the functionalist school of thought popular in American sociological circles between the 1930s and the 1960s, and both reflect this theoretical origin. We argue that a culturally relevant gerontology needs to move beyond such bipolar conceptions of the aging process and focus more on the role that gender, stage of the aging process, health status, culture, social organization, and/or economic factors play in creating withdrawal from (or adherence to) social roles and relationships. Some studies have taken steps in this direction by examining age, ethnicity, and gender as critical contexts in which to understand productivity among older adults (Danigelis & McIntosh, 1993; Glass, Seeman, Herzog, Kahn, & Berkman, 1995; Herzog & Morgan, 1992; McIntosh & Danigelis, 1995). Other studies have focused on examination of the actual health-enhancing effects of engaging in productive activity in later life (Glass *et al.*, 1995; Herzog, House, & Morgan, 1991; Herzog, Ofstedal, & Wheeler, 2002; Luoh & Herzog, 2002; Menec, 2003).

### The cultural construction of successful aging in Japan

Nowhere is the issue of successful aging, with its focus on productive activity, more salient than in modern Japan, where one of the most dramatic aging-related demographic and social shifts ever recorded is currently taking place. Decreasing fertility rates coupled with increasing life expectancy has resulted in a rapid aging of post-war Japanese society. As Traphagan and Knight (2003) pointed out, these demographic changes-coupled with sociocultural, structural, and economic changes—have impacted the lifestyle, family relationships, and expectations of older Japanese and have resulted in a rethinking of the role of the elderly adult. This appears to be particularly true for aging women in Japan (Freed, 1993; Hashimoto, 2004; Jenike, 2004; Lock, 1993; Lock & Kaufert, 2001), who are now living longer than ever before. In fact, Japanese women are now the world's longest living, with an average life expectancy more than 85 years; Okinawan women are the longest living of the Japanese, with a life expectancy surpassing 86 years (Japanese Ministry of Health, Labour, and Welfare, 2006).<sup>2</sup>

Akiyama and Antonucci (2002) have suggested three ways in which Japanese elders have responded to these changes. First, health maintenance and promotion has become an almost obsessive focus among this group. Second, the world's highest longevity and greater post-retirement security have created a cultural opening to exploring new pathways to selfactualization (such as adult education, sports activities, and artistic efforts). And finally, there is what Akiyama and Antonucci see as the most fundamental change: the increasingly diverse and individually managed living arrangements, including more allowance for the individual pursuit of independence.

As a result of these sweeping changes, the traditional Confucian ethic of filial piety, which sanctions dependency and family care for the elderly, seems alive and well mainly in the minds of non-Japanese as a highly idealized picture of Japanese old age (Hashimoto,

 $<sup>^2</sup>$  Life expectancy figures (life tables) for individual prefectures are available every 5 years, with the most recent figures for Okinawa prefecture (for the year 2000) published in 2002. At that time, life expectancy for women of Okinawa prefecture was 86.01 years, the longest of the 47 Japanese prefectures. Abridged life tables for Japan as a whole are available from the Ministry of Health, Labour, and Welfare on a yearly basis. The most recent tables (for the year 2005) show that Japanese women have a life expectancy of 85.49 years, making them the world's longest living for the 21st consecutive year.

2004; Jenike, 2004; O'Leary, 1993; Tobin, 1987; Traphagan, 2004). Consequently, the areas of health, support, and care for the elderly have emerged as potent issues of concern. Self-care has become increasingly important, and the necessity of remaining a healthy and productive member of society in old age has come to take on moral import for the current generation of elders in Japan (Hashimoto, 1996; Traphagan, 2000).

This article explores the issue of how older women in a small rural village in the southwestern Japanese prefecture of Okinawa have turned to the cultural activity of traditional *basho-fu* (*M. liukiuensis*) weaving to maintain their status as active and productive members of society in the face of a rapidly changing social milieu. The analysis turns on the problem of *symbolic capital*:<sup>3</sup> how older village women acquire it and what it means in terms of their own phenomenological experience of aging.

Anthropologists and other researchers interested in the cross-cultural experience of aging have long been interested in the ways in which people from various cultures store up symbolic capital in the course of growing old, documenting the importance of knowledge, wisdom, supernatural power, goods, number of children, and other sources of merit or status (Amoss & Harrell, 1981; E. R. Holmes & L. D. Holmes, 1995; Maxwell & Silverman, 1970; Simmons, 1945).

Hashimoto (1996) has explored how building symbolic capital (she refers to "symbolic resources" in the form of rights, responsibilities, credits, and debts) comes in the form of building credit through self-maintenance of health, continued engagement with society (in various cultural manifestations), and pursuit of productive activity (see also Traphagan, 2000). She points out that expectations that Japanese society places on its elders can be glimpsed by analyzing the text of the *Law for the Welfare of the Elderly* as formulated in 1990 and translated below:

The aged shall be loved and respected as those who have, for many years, contributed toward the development of society and a wholesome and peaceful life shall be guaranteed to them. The aged shall be conscious of their mental and physical changes due to aging, and shall always endeavor to maintain their physical and mental health to participate in society with their knowledge and experience. In accordance with their desire and ability, the aged shall be given opportunities to engage in suitable work or to participate in social activities. (Hashimoto, 1996, p. 35)

Thus, older people are judged by the accumulated credits they have built up during a lifetime of contributions to society. This credit remains in good standing so that the old become deserving of benefits and respect that younger people have yet to earn. Yet, as Hashimoto's analysis has made clear, even though older people are a class of people who can expect to receive benefits from society, this comes at a price. The cost comes in the form of building further credit through maintaining their health and continuing to contribute to society in the form of engagement in activity that contributes in some form or another to the social whole. These reciprocal obligations operate among individuals and between individuals and society. Society is obligated both to award symbolic capital to persons who

<sup>&</sup>lt;sup>3</sup> The term *symbolic capital* was derived from Pierre Bourdieu's concept of symbolic capital as detailed in his book, *Distinction: A Social Critique of the Judgment of Taste* (1984). Symbolic capital refers to the amount of honor and prestige possessed by a person with regard to acting social structures. Bourdieu extended (and transformed) the Marxian notion of economic capital to include categories such as social capital and cultural capital. For Bourdieu, the position an individual occupies in the *social space* is defined not by class, but by the amount of capital one possesses and by the relative amounts that social, economic, and cultural capital account for within the social structure.

have contributed to society throughout their lifetimes, as well as to provide opportunities for elders to continue to engage in such activity.

In turn, older people have an obligation to participate in social life and be productive to the extent their abilities allow. Under these circumstances, an older individual's responsibility to remain an active, contributing member of society takes some interesting cultural forms. In Ogimi, weaving *basho-fu* has always been part of the daily productive activity of the present generation of elderly women, yet, as shall be explored in this article, its meaning and significance for the lives of the current generation of elderly women has changed considerably over the years.

#### Study area

Okinawa prefecture consists of 161 islands, part of the subtropical Ryukyu archipelago that stretches for 1288 km between the Japanese main islands and Taiwan. Although administratively a prefecture of Japan since 1879, the islands were formerly an independent political entity known as the Ryukyu Kingdom with tributary ties to China (Kerr, 1958). Following the end of World War II in 1945, Okinawa was administered by the United States for 25 years before reversion to Japanese administration in 1972. The Okinawans may be best characterized as one of the Japanese ethnic minority populations (Pearson, 1996; Taira, 1997; Waswo, 1996). Despite more than a century of assimilation, differences still persist in the areas of social and cultural practices (Hein & Seldon, 2003; Hook & Siddle, 2002), language and literature (Molasky & Rabson, 2001), music and art forms (Higa, 1976), social structure and religion (Lebra, 1966; Matayoshi & Trafton, 2000; Sered, 1999), dietary habits (Todoriki, D. C. Willcox, & B. J. Willcox, 2004), and identity (Allen, 2002; Ota, 1980; Refsing, 2003), among others.

Ogimi-*son* is a village or township of about 3,500 persons located in the northern part of Okinawa prefecture and is known for the longevity of its inhabitants, particularly the women.<sup>4</sup> Although the Ryukyu Islands are known throughout Asia as the "Galapagos of the East" because of the abundance of flora, fauna, and pristine rain forests, in Ogimi much of the land is mountainous and only a few isolated valley areas are available for cultivation. An amalgamation of 17 smaller village hamlets called *aza*, Ogimi became incorporated in its present form as one large village or township in 1903. A 2–3 h (87 km) drive to the capital of Naha and a half-hour (22 km) drive to the nearest city of Nago, Ogimi is nestled comfortably in mountains that one must cross to reach the East China Sea and that border Ogimi to the west. Stretching 8 km east to west and 14 km north to south with a total area of 63 km<sup>2</sup>, Ogimi represents the seventh largest administrative area in Okinawa.

The mountains are heavily forested, and rainforest covers almost three quarters of the township. The mild subtropical climate of Okinawa enables people to spend most of the year outdoors. Blessed with good sources of water, Ogimi boasts no fewer than 16 rivers running through it to empty into the East China Sea. Traditionally, the northern part of Okinawa where Ogimi is situated is referred to as *Yanbaru*, which translates literally as "mountain plain." In the past, the term was considered derogatory, as it gave the impression of a poor and uncultivated lifestyle that the northerners were considered to lead. This was in

<sup>&</sup>lt;sup>4</sup> Ogimi has a reputation as a longevity village (*chouju mura*). In 2004, there were 13 centenarians out of a total population of only 3,500, despite the out-migration of some of the centenarian cohort into homes for elders outside of Ogimi village. The atmosphere of longevity is enhanced because of depopulation problems that many Japanese rural communities face, whereby the youths of the village leave to find work in urban areas and the village takes on the characteristics of a so-called rural de-facto senior citizens community (see Ogawa, Lubben, & Chi, 1995).

opposition to the refined southern court culture of Shuri, the former capital of the Ryukyu Kingdom, where the higher classes dwelled in cosmopolitan style, or the bustling business center of Naha, where the main port was located.

Education is compulsory until 16 years of age in Ogimi, as in the rest of Okinawa and Japan, but younger people must relocate or commute to the nearby city of Nago or to larger urban areas to the south in order to receive high school or university education. Although members of the older generation speak the Ryukyuan dialect, younger generations are schooled only in the Japanese language, which has now completely replaced the dialect in the home as well as in larger society. The present study focuses on Kijaha,<sup>5</sup> a small hamlet of the village of Ogimi in northern Okinawa where the *basho-fu* weaving tradition has been best maintained.

### Fieldwork site

As one enters the hamlet of Kijaha (population 451)—the third largest of 17 hamlets or small villages that make up the administrative township of Ogimi—one can see the *kominkwan* (community center) and the playground in which children play and elders meet for their daily games of gateball.<sup>6</sup> Across from the community center is the Basho-fu Hall, which doubles as a cultural exhibition as well as a production center for *basho-fu* weaving. Designated an important intangible cultural property by the national government of Japan in 1974, *basho-fu* weaving has traditionally played a major role in the lives of the villagers, with different age groups taking on different roles throughout the production process. Generally, children and elderly adults take on the less physically demanding tasks. Children help the adults, who cut the trees, take out the fiber, and hang it to dry. Elders clean the fiber and spin it into thread-like yarn. Youths and middle-aged persons weave.

The role of the aged is less physically demanding (but more time consuming) compared to that of young and middle-aged persons. During the course of fieldwork, we found that almost every woman older than 70 had woven *basho-fu* in their youth, and most still took part in one or another aspect of the production process. However, the participation of children and youths has lessened considerably these days, and it is the aged villagers who take more of an active interest. The oldest woman in the village, Nabi Kinjo, who passed away shortly after fieldwork began, was more than 100 years old when she finally gave up the practice shortly before she died. She used to cuts trees, take out the fiber from the stock, and spin the fiber into yarn (a process called *u-umi*). Spinning fiber into yarn is a moneymaking operation. More than a mere hobby, *u-umi* is productive labor for which women are paid in hard cash as well as in other, symbolic ways, as will be explored later in this article.

## **Materials and Methods**

Fieldwork took place during a 4-year period (1997–2001) during numerous visits ranging from a few days to a few weeks. We gathered data primarily through participant observation of a wide range of activities in which older people took part, including (but not limited to)

<sup>&</sup>lt;sup>5</sup> Kijaha denotes the traditional name of this hamlet in Ogimi village.

<sup>&</sup>lt;sup>6</sup> Gateball is a game similar to croquet. It is played by two teams of five players each, and points are scored for passing the ball between each wicket (gate). It is very popular among older Japanese and is promoted by the Japanese government as a way to keep older people active and healthy (see Traphagan, 2000).

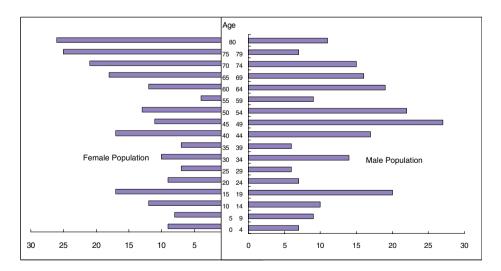
the activities of the *Rojin Kurabu* (Old Person's Club); sports activities such as gateball; traditional dance; cooking and eating; and *basho-fu* weaving. In addition, we took a census of the village in order to gather demographic information and collected documents from the local village office to supplement the census. We also conducted semi-structured interviews with 40 villagers and eight public officials, focusing on the role of *basho-fu* weaving in the lives of elderly women. We paid particular attention to an in-depth exploration of the life history of informant Toshiko Taira, whose life is almost synonymous with the preservation of *basho-fu* weaving in Ogimi. Finally, we surveyed elderly women of the village as to whether they still participated in some stage of the *basho-fu* production process, and we carried out a time allocation study in order to determine the amount of time women spent on each stage of the production process.

From this data set we present the following: a population breakdown by age and gender of the village of Kijaha; the percentage of women who "do *basho*" and the activities that they carry out, as well as how much time (in days) they allocate to each activity; the life history of Toshiko Taira in the context of the historical process of the preservation of the *basho-fu* weaving industry; and vignettes of five elderly women who participate in the *basho-fu* weaving industry, outlining what participation means to them.

# Results

Single, old, and female: The aged household in Kijaha

Kijaha, with its large elderly population, is characteristic of many depopulated Japanese rural villages. Aptly, Ogawa *et al.* (1995, p. 2) refer to such villages as "rural de-facto senior citizen communities." Figure 1 shows the large concentration of older women living in the village. The population of women aged 80 and older more than doubles that of men.



Source: Ogimi Village Office, Population Registration Section, 2000.



As revealed in Fig. 2, Kijaha's 451 residents make up 206 households, almost half of which are single-person households. The next most common household type is the two-person household, which accounts for approximately one quarter of all households, followed by the three-person household, which makes up close to 15% of all households.

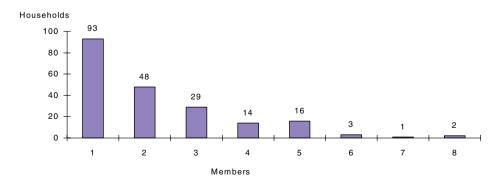
The great number of single- and two-person households can be explained to a large extent by the aging of the community. Most are made up of widowed women or older couples. For example, among single-person households, more than half (53%) consist of a single elderly occupant. Subtracting temporary residents, who consist mainly of younger persons from the mainland who are staying in the village to learn *basho-fu* weaving or who are teachers at the local elementary school (non-native villagers), then the percentage of single-person households, more than three quarters (76%) consist of a single older woman. The oldest old (80 years and older) make up 46% of single-elder households, with 87% of these occupants being women (Table I).

Most of these women are surprisingly autonomous (considering their advanced age) and live in their own homes. Those who have major problems with activities of daily living either move south to live with sons or daughters, move into a nursing home, or receive home care (*kaigo*) services that allow them to remain in their own homes. Even if older women have sons or daughters living in the village, relatively few of them actually live in the same house with their children, let alone in "traditional" three-generation stem families as is often portrayed in ideal images of Japanese families. If they do happen to have children living in the village, older women tend to live on the same *yaashichi* (house lot), next door to children's houses but in their own homes.

For many of these elderly women, *basho-fu* weaving is the center of their productive activity and an organizing principle in their lives. In order to understand the significance of *basho-fu* weaving in the lives of these elderly women, it is important not only to analyze the cultural value attached to this activity but also to define what it means in terms of the aging process of these older women.

From household activity to cultural asset: Basho-fu weaving in historical context

*Basho* is the local name for the plant *M. liukiuensis*, one of up to 100 species of the genera *Musa* of the family *Musaceae*, which also includes the edible banana. Also known as *ito*-



Source: Ogimi Village Office, Population Registration Section, 2000.

Fig. 2 Household size in Kijaha.

Table I   Composition of Single- person Households Composed of the Oldest old (aged 80 years)	Gender	n (%)
and older)	Male	3 (13)
*Excludes temporary residents.	Female	20 (87)
Source: Ogimi Village Office,	Total	23 (100)
Population Registration Section, 2000.	Single households*	29%

*basho* (thread or fiber *Musa*), *basho* is native to the Ryukyu Islands. *Ito-basho* plants are tree-like and valued for the fiber found in their "trunk." The finished woven product is a fine fabric called *basho-fu*. The most important use for *basho-fu* has traditionally been for weaving a type of abaca cloth kimono ideally suited for the subtropical climate and once daily wear for commoners throughout the Ryukyu Islands. Weaving *basho-fu* has long been an important part of the cultural identity of the people of Ogimi village (Kijoka-aza, 1996).

A number of interrelated factors were responsible for the survival of this once everyday household activity, including serendipity; economics; government intervention; a changing sociocultural milieu; and the leadership and efforts of one family and particularly its matriarch, Toshiko Taira, the founder and head of the Basho-fu Preservation Association, who, at the time of this study, still worked daily at the *basho-fu* workshop. A woman small in stature, in her early 80s, Toshiko nevertheless wielded a commanding presence during the fieldwork period.

The hamlet of Kijaha first opened a *basho-fu* exhibition in 1913 and started encouraging weavers on a wider scale through the efforts of Toshiko's grandfather, who served in various administrative posts (such as village head, village treasurer, and member of the Ogimi Village assembly) in the early years of the Taisho era (1912–1926). Until that time, exports had been mostly sugar, indigo, rice, or firewood. As migratory labor practices spread during the Taisho era, younger men from the villages moved south to work as carpenters in the city or to the mainland of Japan (or overseas), so comparatively more women and older people remained in the village. It was around this time that basho-fu weaving came to be carried on more by women and the elders in the village as a kind of cottage industry. A 1916 article from the local newspaper (Ryukyu Shinpo) attests to the growing importance of basho-fu products as export goods along with the usual raw materials of firewood and sugar that made their way down a shipping route from northern Okinawa to the southern port for sale in the city markets of Naha (Kijoka-aza, 1996). Each village within the township opened their own fairs and the cottage industry slowly grew as more and more villagers took up the craft; this often replaced or supplemented the growing of crops such as sugar cane. The *basho* plant can grow well under poor soil conditions that otherwise would not support intensive crop cultivation, thus *basho-fu* weaving was also a solution for the problem of the lack of arable land that plagued Ogimi. It was in the early 1920s that high-loom techniques became more common and people started acquiring their own looms. Toshiko explained:

Between 1922–1925, my grandfather served as village head and discussed with K.M., then the president of the Woman's Association [*Fujinkai*], about how to expand the manufacturing of *basho-fu*. They made some money from collecting firewood and had a blacksmith make small knives, which are used for making threads out of the *basho* plant's fiber, and distributed them to each family in the village, all the while encouraging more women to take weaving as a craft. Thus, it was during the Taisho era, when many men left the village to work as carpenters, that *basho-fu* weaving, which was once a home activity, became a cottage industry led by women.

In the early 1930s, on top of dealing with the effects of the worldwide depression, records indicate that villagers experienced poor harvests, with about half of *basho-fu* production going for home use and about half being sold (Kijoka-aza, 1996). Although no documents are available to show how much of Ogimi's *basho-fu* production was carried out in Kijaha at that time, informants state that it was around 1930 that the hamlet of Kijaha began to be known as *the* production center of the industry in Ogimi.

*Basho-fu* weaving took an enforced hiatus during the war years, but, near the end of 1946, after Toshiko Taira came back from Kurashiki, in the mainland, where she had spent the war period, *basho-fu* weaving was started on its way again. Upon her return to Kijaha, she gathered together the women of the village (of which there were many war widows). It was decided that they would continue *basho-fu* weaving, despite the fact that clothing styles were changing—there was little other opportunity for these women in the wake of the devastation wrought by the war. Looms hidden in the mountains and in caves were dug out, and with the American occupation of Okinawa came a new market for *basho-fu* products. A *basho-fu* workshop was established in Kijaha. Raw materials from Nuuha area (a neighboring hamlet) were purchased and women were employed from there as well. Toshiko elaborated on this growth period:

We made table centers, table mats and cushions for Americans, and cushion textiles and *obi* [belt] textiles for mainland Japanese, calling them *Uwa-Ha* [*basho* plant's peel]. *Mat-Woo* [fiber mats] also began to be produced at this time. The tablemat was a completely new invention. Using cotton thread as vertical threads, weave rush, which was unique to Kijaha, and *basho* alternately and horizontally. We also made a lot of letter holders from this material. There was one year when we made up to 100 rolls of this material and sold them to the airport shops or souvenir shops.

These new products helped to diversify the small industry and were an economical boon to the local women who made them. Women could also work out of their own homes, and this gave them flexibility. A 90-year-old villager explained how this was helpful to her family budget:

My husband was drafted and died during the war. I had to raise five children by myself. While my husband's parents grew vegetables, I made table mats and all kinds of things. *Tatami* [reed mat for flooring], too. I could weave five mats a day on a good day. I supported the whole household through this work and didn't have to leave my home to do it.

A turning point came when the world of *mingei* (folk art) entered the picture. When villagers' works came to the attention of supporters of folk art, they were able to sell their wares at higher prices than they could fetch from selling local souvenirs or mats. In 1954, the only Okinawan general art festival, Oki-ten added a folk-art category and village women began to exhibit their works there. Until then, basho products had been produced for household consumption or were commercial products made for local consumption. Recently they had come to be sold as souvenirs. Now, *basho-fu* weaving became recognized as art. In the mid-1960s, *basho-fu* was introduced into art exhibitions in mainland Japan, such as the Japan Traditional Folk-Art Exhibition and the Japan Folk Art Museum Exhibition. It has been a continuous award winner ever since. In 1972, Kijaha basho-fu weaving was designated an important intangible cultural property of the prefecture and Toshiko Taira was acknowledged as the holder of the designation (akin to a living cultural treasure). In 1974, Kijaha basho-fu was designated an important intangible cultural property or culturally important treasure of the nation (kuni shitei juyou mukei bunkazai), and the Basho-fu Preservation Association, headed by Toshiko, was acknowledged as the group of artists responsible for preserving the art form. Needless to say, the redefinition of basho-fu products as art and of the producers of these products as living cultural treasures had an enormous impact not only on the higher prices fetched for *basho-fu* products, but also on the amount of symbolic capital or merit that producers of these works of art were able to accrue.

In 1972, Okinawa was returned to Japanese administration after 27 years of American occupation, and travel restrictions between Okinawa and the Japanese mainland eased. Orders for *basho-fu* increased, and prices gradually rose. In the mid-1970s, small products began to be made out of the loose textile, mainly by elders. Despite declining overall production, *basho-fu* became well-known throughout Japan and prices for *basho-fu* kimonos skyrocketed. In 1981, Toshiko Taira and the Basho-fu Preservation Association were awarded the First Traditional Culture Pola Award from Pola Traditional Culture Foundation. In 1984, a *Basho-fu* exhibition was held for the 10th anniversary of the Basho-fu Preservation Association. Also in the same year, the Basho-fu Project Collaborative Union (*Kijoka Bashofu Jigyou Kyoudou Kumiai*) was founded under the leadership of the Okinawa Central Small- and Medium-Size Business Association (*Chu-sho Kigyo Dantai Chuo Kai*).

In 1985, the Basho-fu Preservation Association became incorporated and available for subsidies from the government to help with the salaries of trainees who worked in the *basho* factory. In this way, the government hoped to encourage and support the preservation of this traditional art. In the same year, the Basho-fu 10-Year Development Plan was constructed. In 1986, a long-awaited Basho-fu Hall was built with the support of Okinawa prefecture and Ogimi Village. Since then, *basho-fu* educational projects have taken place at Basho-fu Hall. The first *basho-fu* exhibition in a foreign country took place in 1988 as one of the events marking the 100th anniversary of the Washington State at Columbia Art Center. In the 1980s, Ogimi villagers demonstrated the traditional weaving techniques at a museum in Hawaii. Mieko Taira (daughter-in-law of Toshiko Taira) visited Mindanao Island in the Philippines to teach high-loom techniques, and foreign students interested in traditional art forms began to visit Ogimi from other countries. Thus, during the 1980s *basho-fu* weaving came to play a role in international exchange.

It was also during the 1980s that *basho* production began to have further spin-off effects into other areas of production. For example, the *basho* plant's *ubasagara* (*basho* peel), once again began being used to make *basho* paper for bouquets, bookmarkers, and other items. The outer peel (*seasir cho*), which cannot produce any thread, began to be employed in the making of hair for the lion used in traditional *shishimai* lion dances. Many orders began to come to the village from other communities. Furthermore, the mud made from wood ash for simmering the fiber began to be used as glaze for pottery. Finally, in the year 2000, Toshiko Taira received the honors of being designated a living national treasure from the government of Japan.

It is clear that the meaning of *basho-fu* weaving has changed considerably during the life course of Ogimi's current generation of elderly women. From household chore to national cultural treasure, from homemaker to living national treasure, the value (in terms of symbolic capital) of *basho-fu* weaving and weaver grew considerably during the years.<sup>7</sup>

<sup>&</sup>lt;sup>7</sup> It is readily apparent that the value (in terms of symbolic capital) of *basho-fu* weaving as a nationally designated "important intangible cultural property", the treasured objects produced from *basho-fu*, and the weavers themselves, as living cultural treasures (Toshiko Taira is a *living national treasure* or *ningen kokuhou*), has increased considerably. Although not explored in this article, the extent to which Japanese domestic tourism-which often involves journeys to find a "real" (traditional) Japan and seemingly modern identifications of *basho-fu* weaving (and other Okinawan arts, crafts, and cultural practices) with a more ancient Japan—has contributed to this increase in symbolic value remains a project for the future. (For recent explorations of contemporary Okinawan cultural practices, politics, historical memory, identity reconstruction and reframing, and social and political responses to structural constraints, see Hook and Siddle (2002) and Hein and Seldon (2003). See also Martinez (2004) for an analysis of the impact of tourism on the traditional *ama* (diving women) practices of Kuzaki, Japan.)

## Elderly women and the *basho-fu* production process

As was mentioned earlier, *basho-fu* is a fine fabric woven from a type of plantain fiber. This material is ideally suited for the subtropical climate of the Ryukyu Islands. It is a natural warm beige color that is sometimes woven with stripes or *kasuri* (ikat) designs or dyed blue with indigo or reddish-brown with *tekachi*, both of which are obtained from locally grown plants.

*Basho-fu* weaving begins with the cultivation of the plants (*Musa liukiuensis*). When the plants reach maturity after about 2 years, the stalks are cut and long strips are peeled layer by layer. The layers directly under the bark consist of thick fibers suitable for cushion covers, whereas the layers near the core are finer and can be used for kimono material.

Each strip is shredded into ribbons about an inch wide, boiled in a wood-ash solution, scraped with bamboo tongs while wet, and then dried. Thread preparation involves separating the fibers in each strip with the fingernails and tying them together by hand. The tiny knots produce an interesting texture in the finished cloth. After hand spinning, the threads are ready to be woven or tie-dyed.

When a *kasuri* pattern is chosen, the threads to be dye resisted (i.e., left undyed) are tightly bound at measured intervals before weaving. After repeated dyeing, steaming, and outdoor drying, the threads are untied; the bound sections will have retained their natural coloring. The warp and weft threads are set in position on the loom according to the design, and the pattern emerges.

After the completed roll is softened in boiling wood-ash solution, it is soaked in a fermented mixture of rice powder and gruel, then stretched and dried. Then it is given an even texture and fine luster by hand rubbing with an inverted teacup. The entire process, from harvesting the *ito-basho* plants to seeing the finished cloth, takes approximately three months.

The number of days required for each specific activity of the *basho-fu* production process appears in Table II. As can be seen from the time allotment by individual activity, it is the thread preparation (i.e., the separating of the fibers in each strip with fingernails, tying them together by hand, spooling them into balls of yarn [hereafter referred to simply as "spooling"]) that is the single most labor-intensive activity; this is one of the main activities of the elderly women in the village.

Table III shows the participation rates of individual elderly women from the hamlet of Kijaha. Of 94 women aged 65 and older, 78 still participated in some stage of the *basho-fu* weaving production process at survey time. By dividing the production process into four main activities, one can see that the stripping/washing and spooling are the major areas of participation for the elderly women of the village.

# Basho-fu weaving and daily life: Ethnographic vignettes of elderly villagers

Finally, we present five vignettes of elderly women villagers in order to better illustrate what doing *basho* means to the women themselves and therefore gain insight into the multiple and many-faceted roles that doing *basho* fulfills in the daily lives of these extraordinary women.

Kayo Yamashiro, 87 years old: One kind of ikigai

Kayo is 87 years old. Born and raised in Kijaha as the first daughter of six siblings, she is the only one still living. Upon graduation from upper school (junior high) at age 16, she

Table II Number of Days   Required for Basho-fu production by Activity	Activity	Days
	Cutting/bundling/washing fibers	5
	Spooling (u-umi)	20
	Twisting	4
	Adjusting	1
	Dyeing preparation	1
	Knotting splashed pattern	2
	Dyeing	10
	Vertical thread reeling	3
	Reeling up preparation	3
	Weaving	10
<i>Source:</i> Fieldwork/Basho-fu Union, 2000.	The last washing	1

moved to the mainland Japanese city of Osaka to work as a maid. The year was 1930, and Kayo worked 5 years in Osaka until the age of 21. She married for the first time at age 22 to a man from Kijaha, but after 2 years of marriage her husband died fighting overseas. She was widowed at 24. The year was 1938. Following the war in 1947, she re-married with a widower from the village. The man had actually been the husband of Kayo's cousin, who had died in the war. He brought four young children with him; they had another three children together. She saw all of her children graduate from college, although the first two children have since met with early deaths. One of her children lives in Naha, one in the mainland, and the rest in Nago. She also has many grandchildren in Nago.

Her second husband passed away 8 years ago. He was a public official, and Kayo receives a pension as his widow. She also receives her own social security pension. Because she lives a simple life, she is not hurting financially. Like most elderly Kijaha villagers, she grows her own vegetables in her garden, and, like most aged women in Kijaha, she lives alone. Also like most elderly women in Kijaha, she does *u-umi*. Until recently she also did weaving in her own home. She has since given up the practice of weaving itself, as it demands a keen eye and concentration that is difficult for a woman approaching 90. She is content to continue her daily *u-umi* and often spools together with her friend M.N. in the mornings. Spooling is an activity that demands less concentration and can easily be carried out while chatting with friends. Kayo and other Kijaha women often gather, chat, and do *u-umi* together. She estimates that she does *u-umi* about 2–3 h a day. Some days, however, she gets absorbed in the task and continues until 8 or 9 P.M. She confesses that she doesn't make much money at it. "Pocket money," (*kozukai*) she says, although it adds up to considerably more than pocket money (\$200–\$300 per month) and together with her pension she can get by in an area where the cost of living is low. She is insistent that we not

Table III Participation of   Elderly women in Basho-fu   Weaving	Variable/activity	n	Percent
	Total women aged 65 and older in Ogimi	94	_
	Total participants in basho-fu weaving	78	83
	Yarning (spooling)	69	88
	Stripping/washing	66	85
	Weaving	32	41
Source: Fieldwork/Basho-fu Union, 2000.	Dyeing	7	9

touch the thread that she had spooled into a basket because we would tangle it up and ruin hours of work. She stated:

I will be repairing my roof with this money. It doesn't take much money to live here. I grow my own vegetables and am not a spendthrift. I am not a talkative person, although I like being around my friends. We do it [spooling] together sometimes. Other times I do it by myself. I don't hear too well these days, so sometimes I just prefer to be alone. But just sitting and spooling without saying much is also enjoyable for me. Actually, I don't know what I would do without *basho-fu* weaving in my life. Life would be different. Like I was missing something. It's something that gives my life continuity and meaning. We all do it, you know. Even if we give it up, we like to hang around others who do it. Besides, we all give it up in stages. Almost anyone can *do u-umi* until any age, although weaving a whole kimono is more challenging because you need to use the loom.

Although Kayo usually does not like to talk to others about *basho-fu* weaving (she told us that she never grants interviews, although she is often asked), she revealed that *basho-fu* weaving is "one kind of *ikigai*" (*hitotsu no ikigai*) for her and probably for many women throughout the village.

Kazu Taira, 90 years old: Keeping engaged

Kazu is 90 years old and lives alone. Her husband was killed in the war and her only child, a son, passed away a few years ago. Although she has been invited to live with her niece's family in Naha, she refuses to leave the village. As we heard of others countless times while doing fieldwork in Kijaha, Kazu too questions what she could possibly do with herself in Naha. Instead, like her friends that surround her (she mentioned eight names when prompted), she prefers to stay in the village where she has a job. A founding member of the Basho-Fu Preservation Association, she is the only other founding member who remains active in basho-fu weaving in the village besides Toshiko Taira. Similar to Kayo Yamashiro (see previous example), Kazu's *basho-fu* weaving seems to make her life more meaningful. Having cashed in her stocks from the corporation, she is now free to weave *basho-fu* for friends and relatives and sell her kimonos privately (instead of through the union). Although she often gets offers to sell her work for large sums of money, she refuses for the most part. Instead she prefers to weave for nephews, nieces, grandchildren, and other relatives. She also receives money for her *u-umi* work. She said:

I do *u-umi*, but I also run the loom. Not many women my age still do that, you know. There are few of us originals [founding members] left. Just me and Toshiko. When you reach my age, it's usually all *u-umi*....I am pretty independent, though. Active. The old bones ache sometimes. I got sick a while back, too. Lost a lot of weight. Look at me now. Skin and bones—don't you think? Still, it hasn't stopped me yet. Maybe slowed me down a bit. You know, I still vote, too. My grandson will be taking me to Naha for a rally. We have to support our candidate....It's important not to slow down too much when you get older, or you will stop altogether. Rust up, like on old car. Gotta stay busy. Me? I am busy all the time. Actually, my relatives want me to move south to live with them. No way. What would I do there? I would just be a nuisance [*meiwaku*] to people there. And be bored silly. Here I can work. Lonely? I get visitors all the time. Even people I don't know. Like you. People who are interested in learning about *basho-fu* weaving. Young people. Sometimes they stay for a few weeks. Mostly from *hondo* [mainland Japan].

For Kazu, as for many other older women in the village, *basho-fu* weaving keeps her actively engaged in productive activity, something that she would have a hard time doing in Naha, the busy capital city. She also can preserve a sense of autonomy. A constant stream of visitors (including fellow villagers, relatives, and sometimes even travelers or tourists interested in the tradition of *basho-fu* weaving) keeps her socially engaged. Her gregarious personality, sense of openness, and friendly demeanor also act as a magnet that attracts others to her.

# Maka Yoshihama, 101 years old: Remaining connected

Maka is 101 years old. Her eldest son has already passed away, and she now lives with her daughter in the city, which is a couple of hours drive from Kijaha. As one possible transition into dependency when village women become too frail to live on their own, they will often move in with a daughter or son in the city; then, if they lose all ability to take care of themselves, they will often transition into a nursing home. Maka's daughter had been worried about her living alone at her advanced age. Because Maka had no children in the village, she took up her daughter's offer and left the village a few years ago. Yet Maka has not lost all contact with her former life in the village, for she remains tied into the *basho-fu* weaving network. Every couple of weeks, Maka's daughter makes the trip to Kijaha to pick up the fiber that her mother will later spin into thread, drop off Maka's finished *u-umi* work, collect her mother's pay, and catch up on village news. Maka explained why she still continues to do *basho* despite having left the village:

I never thought that I would live this long. Maybe it's the *u-umi* that's still keeping me going [she laughs]. My daughter helps with that. She brings me the fiber and drops it off. I never wanted to leave the village, but once you reach my age you have to be realistic about it. It was too difficult for me to do everything by myself: cooking, cleaning, taking care of the house. It was just me by myself. All my kids live in the city. That was before the days of *kaigo* [long-term care insurance]. Nowadays, old people can stay in their own homes longer because a home-helper will come around and take care of those chores for you. It's very convenient. Although some people refuse the service. They say it's like taking charity. But I disagree. As I understand it, everybody must pay into it, so why not collect from it? It's like the union [Basho-fu Union]. Everyone is a member. I still am. Even at my age. I guess I will be until I die. Maybe I would if I didn't have all this work to do [she laughs]. They still need me. Not so many of us do the spooling anymore. Just the old ones like me. The younger people all work the looms. They don't like to do *u-umi*. I hear everything from my daughter....Sometimes I miss village life, though. It's hard getting old. You just can't do things like you used to. I get back only once or twice a year these days. I can't remember the last time I was back. I don't remember things so well anymore. Old people are like that, aren't they? Always forgetting things [boke]. And my seniors [senpai] are all gone now. Just me left. When I think about that, it makes me sad. I lost my oldest son, too. Children are not supposed to pass away before their parents. What's the use of living so long when all your loved ones are gone? Thank goodness I still have my daughter and grandchildren. I have great-grandchildren now, too. They keep me going. And the ito-tsumugi [u-umi].

Kimi Nakada, 86 years old: "If you lived here, you could do it, too"

Kimi Nakada is 86 years old and lives alone. She was born in Kijaha as the seventh child of eight siblings. Her younger sister also lives in Kijaha. Like many other elderly villagers,

Kimi has spent considerable time away from the village. As a young woman, for example, she lived in the South Sea Islands [*Nanyo*] along with her young husband. They were migrant workers who, after the war, moved to Naha. There they worked for many years and also raised a family. Kimi worked as a cook until she retired in her 60s. Because her children in the city are grown with children of their own, Kimi has since returned to the village of her birth and taken up *basho-fu* weaving again. She explained:

I used to work doing *basho* as a child. We all did it as children, along with other chores, as well as helping take care of our younger brothers and sisters. I have a younger sister here, old friends, and many relatives. Kijaha is a place that's easy to live in. People are friendly and warm [*ninjo ga aru tokoro*]. I get a pension, and, with my income from *u-uni*, it's enough to get by without any problems. Look here. I was in this magazine the other day. I'm getting famous [she giggles]. Let me show you how to do it [she shows us how to do the spooling]. You have to pull the threads out one by one from this big chunk. It's from the trunk of the *basho* plant. It's all dried up now, so it's easy to pull them out. Then you have to connect them by tying them together. And then you cut off the excess string after you tie the knot. By keeping your fingers busy with this detailed work it also keeps your mind sharp and prevents *boke* [senility]. But you won't have to worry about that for a long time yet [she chuckles]. It takes a long time, but it's fun too. You know, if you lived here, you could do it [*basho-fu* weaving], too!

For Kimi, doing *basho* is a way to reconnect with her roots as well as re-establish relationships with villagers with whom she has not had daily contact for more than half a century. It is also a source of income that supplements her pension. Without *basho-fu* weaving, she would have had a more difficult time getting re-engaged with fellow villagers and socially integrated into the rhythms of village life. For Kimi, doing *basho* is *atarimae* (taken for granted) or just a natural part of life, and anyone living in Kijaha could (and probably should) be doing it.

Nabi Kinjo, 107 years old: "Without basho-fu weaving, I would surely die"

Nabi, the oldest woman in the village, was actively engaged in the practice of *basho-fu* weaving (*u-umi*) until shortly before her death. When we went to interview her, she had recently been admitted to the nursing home. She appears frail, not more than a whisper of a woman. Less than 5 ft tall, with snow-white hair tied up in a topknot bun, and wearing a blue kimono with *minsa* design (a southern Okinawan geometric pattern), she appears as if she were an incarnation from an age long forgotten. The *hajichi* (tattoo) on her hand only serves to reinforce the image of ages past, as the practice of tattooing the hands and arms of Okinawan women was banned when she was young. Only women more than 100 years old can still be seen with *hajichi*-she is truly the last of a generation. At 105 years old she was heard saying, "If I did not have *basho-fu* weaving in my life, I would surely die." Nabi explained what *basho-fu* weaving meant to her within the context of a century of living experience. She began with talk of her niece:

Toshiko Taira is my niece. She is a national treasure [*ningen kokuhuo*] and the pride of our family. I have lived a long time and seen many things, but nothing makes me prouder than what my niece has done to preserve *basho-fu* weaving. We had nothing after the war but these *basho* plants and some looms hidden in the mountains. We were mostly war widows. But we had to support ourselves. *Basho-fu* weaving kept us

alive. After the war, we sold things that we wove to the American soldiers. Hankies, mats, knickknacks....many different things. It helped keep this village alive—and me, too, I might add....That was a long time ago, but I still remember those days. We scraped though. We survived. It made us tough. A while back, when I was still living at home, a *habu* [poisonous snake] crawled into my house. I killed it with a stick. It caused quite a stir around here. An old lady like me killing a snake. Still, it's nothing compared to what my niece has done. This place would have dried up long ago without *basho-fu* bringing in tourists and such. Look at those awards on the wall.

She showed us letters of appreciation from various municipal officials, newspaper clippings, and photos all proudly displayed as testament to her belief in her own profession. Our interviews with staff at the long-term care facility for the elderly revealed that these women who had been weaving *basho-fu* their whole lives; some of the women who were by then very disabled both physically and cognitively and who were nearing the end of their very long lives unconsciously performed finger and hand movements as if they were still doing *u-umi*.

As can be seen from the above ethnographic vignettes, *basho-fu* weaving plays many roles in the lives of elderly village women. As the center of their productive activity, it creates symbolic capital. It is a source of monetary income. It connects them to their fellow villagers through networks of fellow *basho-fu* weavers. It provides a sense of meaning (*ikigai*), pride, and self-worth. And it remains part of their daily life rhythms, an organizing principle that provides a sense of continuity and a link with the past. This link with the past is important for these women, because modernization has changed most other aspects of village life.

# Discussion

Okinawa is a region that is known for the longevity of its inhabitants, recording (a) the longest average life expectancy for men and women, and (b) the highest concentration of centenarians within Japan, itself the nation with the world's longest life expectancy.<sup>8</sup> The world's highest longevity, greater post-retirement security, and increasingly individualized living arrangements have led to cultural openings that are allowing for new pathways to self-actualization for older Okinawan and other Japanese women. As this analysis of the productive activities of older women in a small village in rural Okinawa has revealed, the older women villagers of Kijaha are no exception. The elderly Okinawan women weavers in the present study not only lived longer but also were socially engaged, suffered from low rates of diseases that accompany the aging process, and enjoyed high rates of functionality.<sup>9</sup>

<sup>&</sup>lt;sup>8</sup> Japanese law requires that all households report births, deaths, marriages, divorces, and criminal convictions to their local authority, which compiles the information into a detailed family register (*koseki*) that encompasses everyone within their jurisdiction. The *koseki* fills the role that birth certificates, death certificates, marriage licenses, and the census play in other countries, all in one. Therefore, we could verify the ages of villagers with a high degree of accuracy.

<sup>&</sup>lt;sup>9</sup> Measurements of disability-free or disability-adjusted life expectancy are still in their infancy and differ between countries. The Ministry of Health, Labour, and Welfare in Japan measures "disability-free life expectancy" by calculating the term that one remains "self-reliant" (i.e., without the need for care [*kaigo*]). The need for care or support in activities for daily living, such as bathing, going to the toilet, preparing meals, and so on—also ranges from needing a low level of care (level 1) to completely bed ridden (level 5). Okinawa ranks near the top of Japanese prefectures in terms of disability-free life expectancy (see Japanese Ministry of Health, Labour, and Welfare, 2000).

This seems to suggest that the majority of older women in Kijaha might be termed "successful agers," if one were to adhere to the current paradigm<sup>10</sup> (see Goto, Yasumura, Nishise, & Sakihara, 2003; Shibata, Haga, Yasumura, Suzuki, & Koyano, 1994).

Remaining productive and engaged in social activity is thought to contribute to the social good and build symbolic capital for the aged in Japan. Traphagan (2000), suggested that it is the act of doing itself that is most important; in fact, far more important than *what* one chooses to do. He investigated the highly popular game of gateball as a major activity that is promoted throughout Japan to keep elders active, healthy, and socially engaged. However, the emphasis on social participation itself rather than the particular activity one participates in applies less to the *basho-fu* weavers in Ogimi, for doing *basho* has been elevated to a high-status, traditional art form. *Basho-fu* weavers, unlike gateball players, are considered to hold valued traditional knowledge for which they are respected and held in high esteem by the community and society as a whole.

Participating in the *basho-fu* production process bestows upon the participant a special status and recognition as someone whose labor creates a socially valued product. Similar to traditional Inuit artists in Canada, whose artwork is valued and whose skills are respected, women who weave *basho-fu* are esteemed as protectors of a tradition. Doing *basho* is looked upon as being highly productive. It produces symbolic capital in all of its forms and those who participate in the process seem to be aware of this. They display this awareness by making disparaging remarks about activities such as gateball, which they consider to be unproductive or, as one villager said, "for those who have time on their hands." As one elderly woman in her late 80s remarked: "I don't have the time for that kind of [frivolous] thing."<sup>11</sup>

Society recognizes the efforts of these women by giving them special awards, and the women proudly display these awards in their homes. As mentioned earlier, Toshiko Taira was recognized by the national government as a living national treasure (*ningen kokuhou*). Many others in the village have also been decorated for their achievements in the area of

<sup>&</sup>lt;sup>10</sup> An ongoing study in Ogimi (Goto *et al.*, 2003) has lent support for the importance of social roles in the successful aging of elderly female villagers, by suggesting that women who lack social roles show an increased risk for mortality. Interestingly, elderly Okinawan villagers in the Ogimi study were also found to live longer; be more active; be employed longer; and have higher scores in measures of social contact, lower rates of admission to hospital, and higher functionality in activities of daily living when compared with their elderly counterparts in a demographically matched village in Akita prefecture (Shibata *et al.*, 1994). Living arrangements were also markedly different. Rates of living alone for the women in the Okinawan sample were close to 40%, whereas less than 10% of the Akita sample lived alone. Most elders in Akita lived with sons or daughters. Therefore, informal support also differed between the two samples. In Akita, family-centered networks were dominant, whereas in Okinawa, neighbor and friendship networks were dominant (Shibata *et al.*, 1994). The high rates of living alone in the Okinawan village may encourage the elders to maintain their autonomy, to be employed longer, and to have wider contact with society. Tight nucleated settlement patterns in most Okinawan villages also allow for easy walking between houses of neighbors and friends and thus encourage contact.

<sup>&</sup>lt;sup>11</sup> One could also argue that there is some kind of colonized ideology operating here as well. The value given to productivity may be due, in part, to the history of Okinawan proletariatization. The early life-course experiences of the current generation of oldest old in Okinawa (such as conscription into colonial labor organizations and mainland Japanese factories) took place at the same time that Okinawans were stigmatized as lazy and indolent. The poet Yamanoguchi Baku captures this dilemma in the ambiguous poem *Kaiwa* (see Yonaharu, 1999), and Tomiyama (1990) deals with it at length in his 1990 book *Modern Japanese Society and the Okinawan: The Process of Becoming Japanese*. Christy (1993) also deals with this issue in his paper *The Making of Imperial Subjects in Okinawa*.

traditional culture. Moreover, Japanese values that originate in Confucian ideas about selfcultivation over the life course reinforce these social processes (Kondo, 1990; Lebra, 1976; Smith, 1983; Traphagan, 2000). Kondo's treatment of pedagogy and the creation of selfhood at a Japanese ethics retreat emphasized that it is the physical and mental effort of *doing* and the *way* in which something is done that is most important because it reveals one's *kokoro* (heart or inner self). In this light, she explored the importance of the notion of *ganbaru* (perseverance) as a moral construct.

Traphagan (2000) took this idea further and applied it to the act of living itself, claiming that in Japan, life itself can be thought of as a kind of normative task that requires one to do one's best or *ganbaru* with endurance and commitment to the very end. He explained that from the perspective of older people in Japan, failing to give one's full effort in preventing or delaying the onset of *boke* (senility) is akin to failure to carry out one's responsibility to continually work at developing one's capacities. In other words, one fails in the self-cultivation game. Because what has been termed the "sociocentric" or "relational" self in Japan is also intimately tied to the social whole (Bachnik, 1994; Kuwayama, 1992), failure to cultivate the self has wider (negative) social implications (Smith, 1983; Traphagan, 2000).

The basic assumption in most realms of Japanese society is that one should be socially directed and engaged in activities that are aimed not just at self-cultivation but at the cultivation of society. Activities that improve or enrich individuals are seen as having the corollary effect of improving the community as a larger entity. One of the interesting features of Traphagan's (2000) study of the concept of senility known as *boke* is that it emerges culturally as a condition of physical and mental decline that affects older people. It can also be construed as a moral construct tied to an individual's social responsibility to be an active, contributing member of society by taking care of one's physical and mental health. Thus, people make use of the values of self-cultivation when thinking about how to manage and control the aging process.

Despite the fact that our research took place on Japan's periphery (both geographically and culturally), we can witness similar processes unfolding in Kijaha, when *basho-fu* weaving has become an organizing principle in the lives of elderly women, many of whom continue their work until they become completely disabled or die. As these women age and lose their ability to actually weave or work the looms, they can still perform *u-umi* until very advanced ages and therefore maintain their status as active participants in the *basho-fu* production process. It was through participation in *basho-fu* weaving that Nabi Kinjo and other women of the hamlet could continue to be active and productive and thus enhance their ability to maintain reciprocal relationships (i.e., be socially engaged).

Thus, it seems clear that productive activity is playing an increasingly important part in the process of successful aging of elderly people (particularly women) in Kijaha (and likely throughout Japan). How much productive activity contributes to the health and longevity of the villagers from Kijaha or the rest of Okinawa cannot be clearly answered from this analysis, although it is indeed likely that it is playing some part in maintaining the high functionality of the Okinawas.

Other factors that may be partly responsible for the health and longevity of the Okinawans have been explored elsewhere and are thought to include both genetic (Akisaka, Suzuki, & Inoko, 1997; Takata, Suzuki, Ishii, Sekiguchi, & Iri, 1987; B. J. Willcox, D. C. Willcox, He, Curb, & Suzuki, 2006) and lifestyle determinants (Suzuki, B. J. Willcox, & D. C. Willcox, 2004) Long-standing differences in a complex mix of culture, social organization, and health practices persist between Okinawa and the rest of Japan that seem

to have given the current generation of Okinawan elders an edge.<sup>12</sup> Previously explored factors that may be responsible for the Okinawan longevity advantage include: healthier eating patterns that include a diet low in caloric density but high in nutrient density (Bernstein *et al.*, 2004; Chan, Suzuki, & Yamamoto, 1997; Suzuki, B. J. Willcox, & D. C. Willcox, 2001; Todoriki *et al.*, 2004; Wilcox *et al.*, 2004; Wilcox, 2005); a geographical north-to-south gradient in life expectancy that may be partially related to climatic factors and lifestyle differences between northerners and southerners (Okamoto & Yagyu, 1998; Oyoshi, Nakayama, & Kuratsu, 1999; Tanaka *et al.*, 2000);<sup>13</sup> high social integration and social support for and between elderly adults, particularly women (Cockerham, Hattori, & Yamori, 2000; Goto *et al.*, 2003; Sered, 1999; Todoriki, Willcox, & Naka, 1998); and a unique post-war public health care system that was highly effective in eliminating endemic infectious disease and that focuses upon intensive health screening to eliminate disease in its early stages (Omine, Sunagawa, Higa, Nakazato, & Sakihara, 1995; Sakihara & Abe, 1996).<sup>14</sup>

Other unique factors may be operating within this particular cultural context that have yet to be explored. One such factor includes the interconnected role of religion, spirituality, aging, and health in the lives of older Okinawan women. What, for example, are the consequences of the notion of the immanence of the dead in Okinawa? Does the suggestion of a continuum from the living to the dead (that may differ from the Western experience) have any effect? Native Japanese ethnologists such as Yanagita Kunio argued that the behavior of the living is always subject to the approval of the dead; likewise, he said that regardless of the success that is achieved by the living, everyone will, on death, become an ancestor (Yanagita, 1988). What consequences does this have for the self-valuation of elderly adults? How does it affect the way in which they are seen by others? What value is placed upon these older Okinawan women as keepers of these important roles? How does this affect their experience of aging?

<sup>&</sup>lt;sup>12</sup> Life expectancy at age 65 for Okinawan men and women is currently the longest among the 47 prefectures. However, changes in morbidity and mortality patterns over the past two decades have resulted in a slowed growth trajectory for men and women compared with those of other prefectures. According to the most recent prefectural data from the Japanese Ministry of Health, Labour, and Welfare (2002) for the year 2000, among men of the 47 prefectures of Japan, Okinawan men ranked first in life expectancy at age 65, ninth at age 40, 23rd at age 20, and 26th at birth. Younger generations are showing increased obesity (among other lifestyle-related diseases) compared to their mainland Japanese counterparts (see Todoriki *et al.*, 2004; Willcox, 2005). Okinawan women were still ranked first in life expectancy at all ages in 2000, although life expectancy gains are slowing among women, as well (Willcox, 2005).

<sup>&</sup>lt;sup>13</sup> There exists a north-to-south gradient in life expectancy and centenarian ratios, with persons living in the southern regions living longer than those in northern regions (although certain exceptions apply). A large part of the differences in longevity can be explained by the lower rates of cerebrovascular disease in southern regions. Lower stroke rates, in turn, can be partly attributed to dietary factors, including lower intakes of sodium (a major risk factor for hypertension, stroke, and stomach cancer) in southern prefectures such as Okinawa (see Iseki *et al.*, 2005; Matsuzaki, 1989; Mizushima, Moriguchi & Nakada, 1992; Tsugane, Sasaki, Kobayashio, Tsubono, & Sobue, 2001; Willcox, 2005; Yamori & Horie, 1994).

<sup>&</sup>lt;sup>14</sup> Mortality declines from infectious diseases such as tuberculosis, gastroenteritis, pneumonia, dysentery, and malaria—the major killers during the 1950s—account for most of the life expectancy gains experienced during this period. In large part, this can be attributed to a unique public health nursing system that covered a very wide range of public health services such as mass health screening, health education, home visits, family planning, child health care, mental health, nutrition, and communicable disease control programs that included dispensing of medicine. This system was not universal in Japan but was started in 1951 under the United States Civil Administration of the Ryukyus and continued following Okinawa's reversion back to Japanese administration in 1972 before finally being fully integrated into the national public health nursing system in the late 1990s (see Omine *et al.*, 1995; Sakihara & Abe, 1996).

Religion and spirituality may be particularly important for Okinawan women, as Okinawa remains the only contemporary society in which women actually lead the official, mainstream, publicly funded religion (Lebra, 1966; Matayoshi & Trafton, 2000; Sered, 1999). Numerous studies have shown benefits of positive spirituality on aging and health (Koenig, 1995; Levin, 1989; Parker *et al.*, 2002; Schaie, Krause, & Booth, 2004) such that some researchers have questioned the current paradigm of successful aging for not explicitly including spirituality in the model (Crowther *et al.*, 2002). In Okinawa, elderly women's active engagement in religious roles may be playing a part in reducing depression and associated rates of suicide (Naka, Willcox, & Todoriki, 1998; Taguchi *et al.*, 1999; Willcox & Katata, 2000). Rates of suicide for elderly Okinawan women have, for many years, been among the lowest in East Asia, a region known for high rates of suicide among older women (La Vecchia, Lucchini, & Levi, 1994; Pritchard & Baldwin, 2002; Rockett & Smith, 1993; Yip, Callanan, & Yuen, 2000).<sup>15</sup>

Suicide is a complex, multifactorial, personal (as well as social) problem. Risk factors differ according to sociocultural context, economic circumstances, age, gender, and life situation. For elder suicide, depression, increasing infirmity, financial problems, and lack of social support are major risk factors. Gender differences also appear with regard to common stress factors reported in Japan, with occupational and financial problems most frequently mentioned by men and difficulties with human relationships and family problems most frequently mentioned by women (Fujioka, Abe, & Hiraiwa, 2004; Taguchi *et al.*, 1999). Although middle-aged and older men often express job-related stress (including unemployment and related financial problems) as important risk factors, recent studies in Japan also point to financial problems and lack of social support as two of the greatest risk factors for late-life suicide among women (Awata *et al.*, 2005; Fushimi, Sugawara, & Shimizu, 2005; Oyama *et al.*, 2005; Yamasaki, Sakai, & Shirikawa, 2005). In this context, productive activity and remaining socially engaged may take on an even greater significance for the successful aging of current and future cohorts of Japanese women.

In conclusion, we argue that participating in traditional *basho-fu* weaving helps older women maintain an active engagement with life as healthy and productive members of society, a role that is culturally sanctioned and has taken on moral import in Japan's rapidly aging society. As such, participation in *basho-fu* weaving may be considered one means to help age successfully in this particular cultural context.

Future studies of successful aging in Okinawa (and elsewhere) may benefit by paying more careful attention to the cultural context within which individuals, as symbolic actors,

<sup>&</sup>lt;sup>15</sup> High rates of suicide among elderly women in East Asia have been used to challenge the commonly accepted view that the "three-generation residence" and a support system relying only (or mainly) upon children (mostly sons and daughters-in-law) in Asian countries is a cultural asset, as has been suggested in past international discourse on elderly care. The counter-argument-that Asian elders are currently very vulnerable in their socially constructed, almost-total dependence on children-has become increasingly vocal (Hu, 1995; Rockett & Smith, 1993). Therefore, it is not surprising that there have been accompanying calls for structural changes to traditional systems of elder care as well as for an increase in opportunities for women through work, volunteering, adult education, sports activities, artistic efforts and for more allowance for the individual pursuit of autonomy. As was mentioned in the text, Japan has moved decisively in this direction, and socialization of care for frail elders was put into effect through public, mandatory long-term care insurance in the year 2000. The program covers both institutional and community-based caregiving (see Campbell & Ikegami, 2000). The core of the community-based caregiving system is a home-helper program that is intended to augment family-provided care and social support, rather than to promote completely independent living. Traphagan (2003) argues that this compensatory approach to elder care is based on an intergenerational social contract in which it is assumed that some degree of dependence on family members is both an expected and preferred outcome of growing old.

experience the aging process over their life course. Further ethnographic work in this area is sorely needed.

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### References

- Adler, N. E., Boyce, T., Chesney, M. A., Cohen, S., Folkman, S., Kahn, R. L., et al. (1994). Socioeconomic status and health: The challenge of the gradient. American Psychologist, 49, 15–24.
- Akisaka, M., Suzuki, M., & Inoko, H. (1997). Molecular genetic studies on DNA polymorphism of the HLA class II genes associated with human longevity. *Tissue Antigens*, 50, 489–493.
- Akiyama, H., & Antonucci, T. (2002). Changing lifestyle of older Japanese: Seeking independence and solidarity. Paper presented at the Symposium on the Ways Some Japanese Live Now: Three Problematic Age Groups, University of Michigan, Ann Arbor.
- Allen, M. (2002). Identity and resistance in Okinawa. Lanham, MD: Rowman & Littlefield.
- Amoss, P. T., & Harrell, S. (Eds.) (1981). Other ways of growing old: Anthropological perspectives. Stanford, CA: Stanford University Press.
- Awata, S., Seki, T., Koizumi, Y., Sata, S., Hozawa, A., Omori, K., et al. (2005). Factors associated with suicidal ideation in an elderly urban Japanese population: A community-based, cross-sectional study. *Psychiatry and Clinical Neuroscience*, 59, 327–336.
- Bachnik, J. M. (1994). Uchi/Soto: Challenging our conceptualizations of self, social order, and language. In J. Bachnik, & C. Quinn (Eds.), *Situated meaning: Inside and outside in Japanese self, society and language* (pp. 3–37). Princeton, NJ: Princeton University Press.
- Bass, S. A. (1996). An overview of work, retirement, and pensions in Japan. Journal of Aging and Social Policy, 8, 57–78.
- Bernstein, A. M., Willcox, B. J., Tamaki, H., Kunishima, N., Suzuki, M., Willcox, D. C., et al. (2004). Autopsy of an Okinawan-Japanese centenarian: Absence of many age-related diseases. Journals of Gerontology: Biological and Medical Sciences, 59A(Special Issue), 1195–1199.
- Bourdieu, P. (1984). Distinction: A social critique of the judgement of taste (R. Nice, trans.). Cambridge, MA: Harvard University Press. (Original work published 1979)
- Bourqe, P., Pushkar, D., Bonneville, L., & Beland, F. (2005). Contextual effects on life satisfaction of older men and women. *Canadian Journal on Aging*, 24, 31–44.
- Bukov, A., Maas, I., & Lampert, T. (2002). Social participation in very old age. Journal of Gerontology: Psychological Sciences, 57B, P510–P517.
- Butt, D. S., & Beiser, M. (1987). Successful aging: A theme for international psychology. *Psychology and Aging*, 2, 87–94.
- Callahan, C. M., McHorney, C. A., & Mulrow, C. D. (Eds.) (2003). Determinants of successful aging: Developing an integrated research agenda for the 21st century. *Annals of Internal Medicine*, 139, 389– 462.

Campbell, J. C., & Ikegami, N. (2000). Long-term care insurance comes to Japan. Health Affairs, 19, 26-39.

- Chan, Y. C., Suzuki, M., & Yamamoto, S. (1997). Dietary, anthropometric, hematological and biochemical assessment of the nutritional status of centenarians and elderly people in Okinawa, Japan. *Journal of the American College of Nutrition*, 16, 229–235.
- Christy, A. (1993). The making of imperial subjects in Okinawa. *Positions: East Asia Cultures Critique*, 1, 607–639.
- Clark, M., & Anderson, B. (1967). Culture and aging: An anthropological study of older Americans. Springfield, II: Charles Thomas.
- Clark, R. L., & Ogawa, N. (1996). Human resource policies and older workers in Japan. *The Gerontologist*, 36, 627–636.

- Cockerham, W. C., Hattori, H., & Yamori, Y. (2000). The social gradient in life expectancy: The contrary case of Okinawa in Japan. Social Science and Medicine, 51, 115–122.
- Collins, P. (2001). If you got everything, it's good enough: Perspectives on successful aging in a Canadian Inuit community. *Journal of Cross-Cultural Gerontology*, 16, 127–155.
- Consedine, N. S., Magai, C., & Conway, F. (2004). Predicting ethnic variation in adaptation to later life: Styles of socioemotional functioning and constrained heterotypy. *Journal of Cross-Cultural Gerontol*ogy, 19, 97–131.
- Crowther, M. B., Parker, M. W., Achenbaum, W. A., Larimore, W. L., & Koenig, H. G. (2002). Rowe and Kahn's model of successful aging revisited: Positive spirituality—the forgotten factor. *The Gerontol*ogist, 42, 613–620.
- Danigelis, N. L., & McIntosh, B. R. (1993). Resources and the productive activity of elders: Race and gender as contexts. *Journal of Gerontology: Social Sciences*, 48, S192–S203.
- Feinstein, J. S. (1993). The relationship between socioeconomic status and health: A review of the literature. Milbank Quarterly, 71, 279–322.
- Freed, A. O. (1993). The changing worlds of older women in Japan. Manchester, CT: Knowledge, Ideas, and Trends, Inc.
- Fry, C. L., Dickerson-Putman, J., Draper, P., Ikels, C., Keith, J. Glascock, A. P., et al. (1997). Culture and the meaning of a good old age. In J. Sokolovsky (Ed.), *The cultural context of aging: Worldwide perspectives* (2nd edn, pp. 99–123). London: Bergin and Garvey.
- Fujioka, K., Abe, S., & Hiraiwa, K. (2004). Jisatsusha ni okeru seizen no shakaiteki shinriteki shintaiteki haikei—Fukushima ken ni okeru ichinenkan no jisatsusha no zenshu chousa kara [Lifetime social, psychological and physical background of suicides: Research on the number of suicides during a year in Fukushima prefecture]. Seishin Shinkeigaku Zasshi (Psychiatria et Neurologia Japonica), 106, 17–31.
- Fujiwara, Y., Sugihara, Y., & Shinkai, S. (2005). Borantia katsudo ga koureisha no shinshin no kenko ni oyobosu eikyo: Chiiki hoken fukushi ni okeru koureisha borantia no igi [Effects of volunteering on the mental and physical health of senior citizens: Significance of senior volunteering from the view point of community health and welfare]. Nippon Koshu Eisei Zasshi [Japanese Journal of Public Health], 52, 293–307.
- Fushimi, M., Sugawara, J., & Shimizu, T. (2005). Suicide patterns and characteristics in Akita, Japan. Psychiatry and Clinical Neuroscience, 59, 296–302.
- Giles, H., & Dorjee, T. (2004). Communicative climates and prospects in cross-cultural gerontology. Journal of Cross-Cultural Gerontology, 19, 261–274.
- Glascock, A. P. (1997). When is killing acceptable: The moral dilemma surrounding assisted suicide in America and other societies. In J. Sokolovsky (Ed.), *The cultural context of aging: Worldwide perspectives* (2nd edn, pp. 56–70). London: Bergin and Garvey.
- Glass, T. A., Seeman, T. E., Herzog, A. R., Kahn, R., & Berkman, L. F. (1995). Change in productive activity in late adulthood: MacArthur studies of successful aging. *Journal of Gerontology: Social Sciences*, 50B, S65–S76.
- Goto, A., Yasumura, S., Nishise, Y., & Sakihara, S. (2003). Association of health behavior and social role with total mortality among Japanese elders in Okinawa, Japan. *Aging Clinical and Experimental Research*, 15, 443–450.
- Hashimoto, A. (1996). The gift of generations: Japanese and American perspectives on aging and the social contract. Cambridge, MA: Cambridge University Press.
- Hashimoto, A. (2004). Culture, power, and the discourse of filial piety in Japan: The disempowerment of youth and its social consequences. In C. Ikels (Ed.), *Filial piety in contemporary East Asia* (pp. 182– 197). Stanford, CA: Stanford University Press.
- Hein, L., & Seldon, M. (Eds.) (2003). Islands of discontent: Okinawan responses to Japanese and American power. Lanham, MD: Rowman & Littlefield.
- Herzog, A. R., House, J. S., & Morgan, J. N. (1991). Relation of work and retirement to health and wellbeing in old age. *Psychology and Aging*, 6, 202–211.
- Herzog, A. R., & Morgan, J. N. (1992). Age and gender differences in the value of productive activities: Four different approaches. *Research on Aging*, 14, 169–198.
- Herzog, A. R., Ofstedal, M. B., & Wheeler, L. M. (2002). Social engagement and its relationship to health. *Clinics in Geriatric Medicine*, 18, 593–609.
- Higa, E. (1976). Okinawan classical music: Analysis of vocal performance. Unpublished master's thesis, Honolulu: University of Hawaii.
- Holmes, E. R., & Holmes, L. D. (1995). Other cultures, elder years (2nd edn.). Thousand Oaks, CA: Sage.
- Holstein, M. B., & Minkler, M. (2003). Self, society, and the "new gerontology". The Gerontologist, 43, 787–796.
- Hook, G. D., & Siddle, R. (Eds.) (2002). Japan and Okinawa: Structure and subjectivity. London: Routledge.

- Hu, Y.-H. (1995). Elderly suicide risk in family contexts: A critique of the Asian family care model. *Journal of Cross-Cultural Gerontology*, 10, 199–217.
- Iseki, K., Iseki, C., Itoh, K., Uezono, K., Sanefuji, M., Ikemiya, Y., et al. (2005). Urinary excretion of sodium and potassium in a screened cohort in Okinawa, Japan. *Hypertension Research*, 25, 731–736.
- Japanese Ministry of Health, Labour, and Welfare. (2000). Kenko shihyou soukatsu [General health index]. Tokyo: Health and Welfare Statistics Association.
- Japanese Ministry of Health, Labour, and Welfare. (2002). Kokumin Eisei no Doukou (Health trends of Japanese). Kosei no shihyou [Japanese journal of health and welfare statistics]. Tokyo: Health and Welfare Statistics Association.
- Japanese Ministry of Health, Labour, and Welfare. (2006). Kokumin Eisei no Doukou (Health trends of Japanese). Kosei no shihyou [Japanese journal of health and welfare statistics]. Tokyo: Health and Welfare Statistics Association.
- Jenike, B. R. (2004). Great-grandparenthood in urban Japan. In C. Ikels (Ed.), Filial piety:Practice and discourse in contemporary East Asia (pp. 217–242). Stanford, CA: Stanford University Press.
- Johnson, C. L., & Barer, B. M. (1997). Life beyond 85 years: The aura of survivorship. New York: Springer. Kaufman, S. (1986). The ageless self: Sources of meaning in late life. New York: Meridian.
- Keith, J., Fry, C. L., Glascock, A. P., Ikels, C., Dickerson-Putnam, J., Hardening, H. C., et al. (1994). The aging experience: Diversity and commonality across cultures. Thousand Oaks, CA: Sage.
- Kerr, G. (1958). Okinawa: The history of an island people. Rutland, VT: Charles E. Tuttle.
- Kessler, R. C., & McRae, J. A. (1982). The effect of wives' employment on the mental health of married men and women. *American Sociological Review*, 47, 216–227.
- Kijoka-aza. (1996). Kijoka-shi [History of Kijoka]. Kijoka-shi Kankoo-kai, Japan: Taiheido.
- Koenig, H. G. (1995). Research on religion and aging: An annotated bibliography. Westport, CT: Greenwood.
- Kondo, D. (1990). Crafting selves: Power, gender, and discourses of identity in a Japanese workplace. Chicago: University of Chicago Press.
- Kuwayama, T. (1992). The reference—other orientation. In N. Rosenberger (Ed.), Japanese sense of self (pp. 121–151). New York: University of Cambridge Press.
- Langle, A. (2001). Old age from an existential-analytical perspective. Psychological Reports, 89, 211-215.
- La Vecchia, C., Lucchini, F., & Levi, F. (1994). Worldwide trends in suicide mortality, 1955–1989. Acta Psychiatrica Scandinavica, 90, 53–64.
- Lebra, W. P. (1966). *Okinawan religion: Belief, ritual and social structure*. Honolulu: University of Hawaii Press.
- Lebra, T. (1976). Japanese patterns of behavior. Honolulu: University of Hawaii Press.
- Leeflang, R. L., Klein-Hesselink, D. J., & Spruit, I. (1992). Health effects of unemployment: II Men and women. Social Science and Medicine, 34, 351–363.
- Levin, J. S. (1989). Religious factors in aging, adjustment, and health: A theoretical overview. In W. M. Clements (Ed.), *Religion, aging and health: A global perspective* (pp. 133–146). New York: Haworth.
- Lock, M. (1993). Ideology, female midlife, and the graying of Japan. Journal of Japanese Studies, 19, 43-78.
- Lock, M., & Kaufert, P. (2001). Menopause as a measure of population health. American Journal of Human Biology, 13, 494–504.
- Luoh, M. C., & Herzog, A. R. (2002). Individual consequences of volunteer and paid work in old age: Health and mortality. *Journal of Health and Social Behavior*, 43, 490–509.
- Macintyre, S., & Hunt, K. (1997). Socio-economic position, gender, and health: How do they interact? Journal of Health Psychology, 2, 315–334.
- Martinez, D. P. (2004). *Identity and ritual in a Japanese diving village*. Honolulu: University of Hawaii Press.
- Matayoshi, M., & Trafton, T. (2000). Ancestors worship: Okinawa's indigenous belief system. Toronto, Canada: University of Toronto Press.
- Mathews, G. (1996). What makes life worth living: How Japanese and Americans make sense of their worlds. Berkeley: University of California Press.
- Matsuzaki, T. (1989). Nihonjin no chouju youin ni kan suru ekigaku teki kenkyu [An epidemiological analysis of the factors associated with Japanese longevity]. Kosei no Shihyou [Japanese Journal of Health and Welfare Statistics], 36, 3–11.
- Maxwell, R. J., & Silverman, P. (1970). Information and esteem: Cultural considerations in the treatment of the aged. *International Journal of Aging and Human Development*, 1, 361–392.
- McIntosh, B. R., & Danigelis, N. L. (1995). Race, gender, and the relevance of productive activity for elders' affect. Journal of Gerontology: Social Sciences, 50B, S229–S239.
- Menec, V. H. (2003). The relation between everyday activities and successful aging: A six-year longitudinal study. *Journal of Gerontology: Social Sciences*, 58B, S74–S82.

- Mizushima, S., Moriguchi, E. H., & Nakada, Y. (1992). The relationship of dietary factors to cardiovascular diseases among Japanese in Okinawa and Japanese immigrants, originally from Okinawa, in Brazil. *Hypertension Research*, 15, 45–55.
- Molasky, M., & Rabson, S. (2001). Southern exposure: Modern Japanese literature from Okinawa. Honolulu: University of Hawaii Press.
- Morrow-Howell, N., Hinterlong, J., Rozario, P. A., & Tang, F. (2003). Effects of volunteering on the wellbeing of older adults. *Journal of Gerontology: Social Sciences*, 58B, S137–S145.
- Naka, K., Willcox, D. C., & Todoriki, H. (1998). Suicide in Okinawa: A consideration of socio-cultural factors. *Ryukyu Medical Journal*, 18, 76–92.
- Nakanishi, N. (1999). 'Ikigai' in older Japanese people. Age and Ageing, 28, 323-324.
- Ogawa, T., Lubben, J., & Chi, I. (1995). Social support networks among rural Japanese elders. Paper presented at the 5th Asia/Oceania Regional Congress of Gerontology, Hong Kong.
- Okamoto, K., & Yagyu, K. (1998). Wa ga kuni ni okeru hyakujusha no chiriteki bunpu to sono kanren youin [Geographication of centenarians and its related factors in Japan]. Nippon Eiseigaku Zasshi [Japanese Journal of Hygiene], 53, 529–535.
- O'Leary, J. (1993). A new look at Japan's honorable elders. Journal of Aging Studies, 7, 1–24.
- Omine, C., Sunagawa, K., Higa, S., Nakazato, S., & Sakihara, S. (1995). The role of public health nurses in tuberculosis control and prevention in Okinawa. In K. Yamazato, S. Ishijima, S. Sakihara, H. Taira, Z. Shimabukuro, F. Teruya, & F. Nishihira (Eds.), *Development and conservation in the Asia–Pacific Region* (pp. 95–112). Nishihara, Japan: Okinawa Chapter of the East–West Center Association.
- Ota, M. (1980). Okinawa-jin to wa nani ka [Who are Okinawans?]. Naha, Japan: San Publishing.
- Oyama, H., Watanabe, N., Ono, Y., Sakashita, T., Takenoshita, Y., & Taguchi, M., et al. (2005). Communitybased suicide prevention through group activity for the elderly successfully reduced the high suicide rate for females. *Psychiatry and Clinical Neuroscience*, 59, 337–344.
- Oyoshi, T., Nakayama, M., & Kuratsu, J. (1999). Relationship between aneurismal subarachnoid hemorrhage and climatic conditions in the subtropical region, Amami-Oshima, in Japan. *Neurologia Medico-Chirurgica*, 39, 585–591.
- Parker, M. W., Bellis, J. M., Bishop, P., Harper, M., Allman, R. M., Moore, C., et al. (2002). A multidisciplinary model of health promotion incorporating spirituality into a successful aging intervention with African American and White elderly groups. *The Gerontologist*, 42, 406–415.
- Pearson, R. (1996). The place of Okinawa in Japanese historical identity. In D. Denoon, M. Hudson, G. McCormack, & T. Morris-Suzuki (Eds.), *Multicultural Japan: Paleolithic to postmodern* (pp. 95–116). Cambridge, MA: Cambridge University Press.
- Phelan, E. A., Anderson, L. A., LaCroix, A. Z., & Larson, E. B. (2004). Older adults' views of successful aging: How do they compare with researchers' definitions? *Journal of the American Geriatrics Society*, 52, 211–216.
- Pritchard, C., & Baldwin, D. S. (2002). Elderly suicide rates in Asian and English-speaking countries. Acta Psychiatrica Scandinavia, 105, 271–275.
- Refsing, K. (2003). In Japan but not of Japan. In C. Mackerras (Ed.), *Ethnicity in Asia* (pp. 48–64). London: Routledge.
- Rockett, I. R., & Smith, G. S. (1993). Covert suicide among elderly Japanese females: Questioning unintentional drownings. Social Science and Medicine, 36, 1467–1472.
- Rosenberg, H. G. (1997). Complaint discourse, aging and caregiving among the Ju'hoans of Botswana. In J. Sokolovsky (Ed.), *The cultural context of aging: Worldwide perspectives* (2nd edn, pp. 33–55). London: Bergin and Garvey.
- Rowe, J. W., & Kahn, R. L. (1987). Human aging: Usual and successful. Science, 237, 143–149.
- Rowe, J. W., & Kahn, R. L. (1997). Successful aging. The Gerontologist, 37, 433-440.
- Rowe, J. W., & Kahn, R. L. (1998). Successful aging. New York: Random House.
- Sakihara, S. (2004). Okinawa ni okeru sakusesufuru eijinju ni kan suru kenkyu [Research on successful aging in Okinawa]. Kouseiroudou sho kagaku kenkyu hi hojo kin. Heisei 13 nendo-Heisei 15 nendo sougou kenkyu houkoku [Report on research activities for the period 2001–2003 to Ministry of Health, Labour, and Welfare]. Ginowan, Japan: Okinawa International University.
- Sakihara, S., & Abe, A. (1996). Okinawa ni okeru hoken iryou no tokusei [The distinctive features of Okinawa's medical, health and welfare system]. In H. Nagamori, T. Iwamasa, T. Fukunaga, A. Saito, T. Kosugi, S. Sakihara, & Y. Sato (Eds.), Okinawa no shippei to sono tokusei [The distinctive features of disease in Okinawa] (pp. 21–40). Fukuoka, Japan: University of Kyushu Press.
- Schaie, K. W., Krause, N., & Booth, A. (Eds.) (2004). Religious influences on health and well-being in the elderly. Berlin Heidelberg New York: Springer.
- Sered, S. (1999). Women of the sacred groves: Divine priestesses of Okinawa. New York: Oxford University Press.

- Shibata, H. (2002). Sakusesufuru eijingu no jouken [Constituents of successful aging]. Nippon Ronen Igakkai Zasshi [Japanese Journal of Geriatrics], 39, 152–154.
- Shibata, H., Haga, H., Yasumura, S., Suzuki, T., & Koyano, W. (1994). Possible factors influencing difference in rate of aging in Japan. In B. J. Vellas, J. L. Albarede, & P. J. Garry (Eds.), *Facts and research in gerontology: Epidemiology and aging* (pp. 51–59). Berlin Heidelberg New York: Springer.
- Shimonaka, Y., Nakazato, K., & Homma, A. (1996). Personality, longevity and successful aging among Tokyo metropolitan centenarians. *International Journal of Aging and Human Development*, 42, 173–187.
- Silverman, P. (1987). Comparative studies. In *The elderly as modern pioneers* (pp. 312–344). Bloomington: Indiana University Press.
- Simmons, L. W. (1945). The role of the aged in primitive society. New Haven, CT: Yale University Press.
- Smith, R. (1983). Japanese society: Tradition, self, and the social order. Cambridge: Cambridge University Press.
- Snow, L., & Pan, C. X. (2004). How do physicians think about successful aging? Annals of Internal Medicine, 140(10), 852.
- Sokolovsky, J. (1997a). Aging, modernization and societal transformation. In *The cultural context of aging:* Worldwide perspectives (2nd edn, pp. 179–189). London: Bergin and Garvey.
- Sokolovsky, J. (1997b). Culture, aging and context. In *The cultural context of aging: Worldwide perspectives* (2nd edn, pp. 1–15). London: Bergin and Garvey.
- Stolzenberg, R. M. (2001). It's about time and gender: Spousal employment and health. American Journal of Sociology, 107, 61–100.
- Strawbridge, W. J., Wallhagen, M. I., & Cohen, R. D. (2002). Successful aging and well-being: Self-rated compared with Rowe and Kahn. *The Gerontologist*, 42, 725–726.
- Suzuki, M., Willcox, B. J., & Willcox, D. C. (2001). Implications from and for food cultures for cardiovascular disease: Longevity. Asia Pacific Journal of Clinical Nutrition, 10, 165–171.
- Suzuki, M., Willcox, B. J., & Willcox, D. C. (2004). Successful aging: Secrets of Okinawan longevity. Geriatrics and Gerontology International, 4, 180–181.
- Taguchi, M., Watanabe, N., Aoba, A., Nakagame, H., Naka, K., Willcox, D. C., et al. (1999). Jisatsu ga takai chiiki to hikui chiiki no kenjou koureisha no ikigai chousa [Research on ikigai in regions of high and low suicide]. Ronen Shakai Kagaku [Japanese Journal of Gerontology], 21(2), 235.
- Taira, K. (1997). Troubled national identity: The Ryukyuans/Okinawans. In M. Weiner (Ed.), Japan's minorities: The illusion of homogeneity (pp. 140–177). London: Routledge.
- Takata, H., Suzuki, M., Ishii, T., Sekiguchi, S., & Iri, H. (1987). Influence of major histocompatibility complex region genes on human longevity among Okinawan Japanese centenarians and nonagenarians. *Lancet*, 2, 824–826.
- Tanaka, H., Shinjo, M., Tsukuma, H., Kawazuma, Y., Shimoji, S., Kinoshita, N., et al. (2000). Seasonal variation in mortality from ischemic heart disease and cerebrovascular disease in Okinawa and Osaka: The possible role of air temperature. *Journal of Epidemiology*, 10, 392–398.
- Tate, R. B., Leedine, L., & Cuddy, T. E. (2003). Definition of successful aging by elderly Canadian males: The Manitoba follow-up study. *The Gerontologist*, 43, 735–744.
- Tobin, J. (1987). The American idealization of old age in Japan. The Gerontologist, 27, 53-58.
- Todoriki, H., Willcox, D. C., & Naka, K. (1998). Koureisha no shakaiteki shien to shukanteki kofukukan ni tsuite [Social support and subjective well-being of Okinawan elderly]. *Ningen Kagaku [Human Science]*, 10, 17–23.
- Todoriki, H., Willcox, D. C., & Willcox, B. J. (2004). The effects of post-war dietary change on longevity and health in Okinawa. Okinawan Journal of American Studies, 1, 55–64.
- Tomiyama, I. (1990). Kindai Nihon shakai to "Okinawajin": "Nihonjin" ni naru to yu koto [Modern Japanese society and the Okinawan: The process of becoming Japanese]. Tokyo: Nihon Keizai Hyoronsha.
- Torres, S. (1999). A culturally relevant theoretical framework for the study of successful ageing. Aging and Society, 19, 33–51.
- Traphagan, J. W. (2000). *Taming oblivion: Aging bodies and the fear of senility in Japan*. Albany: State University of New York Press.
- Traphagan, J. W. (2003). Independence, security, and the intergenerational social contract: Home-helper services and elder care in rural Japan. *Care Management*, 4, 216–222.
- Traphagan, J. W. (2004). Curse of the successor: Filial piety vs marriage among rural Japanese. In C. Ikels (Ed.), *Filial piety: Practice and discourse in contemporary East Asia* (pp. 198–216). Stanford, CA: Stanford University Press.
- Traphagan, J. W., & Knight, J. (Eds.) (2003). *Demographic change and the family in Japan's aging society*. Albany: State University of New York Press.

- Tsugane, S., Sasaki, S., Kobayashi, M., Tsubono, Y., & Sobue, T. (2001). Dietary habits among the JPHC study participants at baseline survey: Japan Public Health Center-based Prospective Study on Cancer and Cardiovascular Diseases. *Journal of Epidemiology*, 11, 30–43.
- von faber, M., Bootsma-van der Weil, A., van Exel, E., Gussekloo, J., Lagaay, A. M., van Dongen, E., et al. (2001). Successful aging in the oldest old: Who can be characterized as successfully aged? Archives of Internal Medicine, 161, 2694–2700.
- Waswo, A. (1996). Modern Japanese society. Oxford: Oxford University Press.
- Weiss, R. S., Bass, S. A., Heimovitz, H. K., & Oka, M. (2005). Japan's silver human resource centers and participant well-being. *Journal of Cross-Cultural Gerontology*, 20, 47–66.
- Willcox, D. C. (2005). Okinawan longevity: Where do we go from here? *Journal of Nutrition and Dietetics*, 8, 9–17.
- Willcox, D. C., & Katata, J. (2000). Kenko chouju to shinkoshin, shukyou, girei no kakawari [Psychophysiology of ritual in aging and health in Okinawa]. *Ronen Igaku [Geriatric Medicine]*, 389, 1357– 1364.
- Willcox, B. J., Yano, K., Chen, R., Willcox, D. C., Rodriguez, B. L., Masaki, K. H., et al. (2004). How much should we eat? The association between energy intake and mortality in a 36-year follow-up study of Japanese American men in Hawaii. Journal of Gerontology: Biological Sciences, 59A, B789–B795.
- Willcox, B. J., Willcox, D. C., He, Q., Curb, J. D., & Suzuki, M. (2006). Siblings of Okinawan centenarians share lifelong mortality advantages. *Journal of Gerontology: Biological and Medical Sciences*, 61, 345– 354.
- Yamasaki, A., Sakai, R., & Shirikawa, T. (2005). Low income, unemployment, and suicide mortality rates for middle-age persons in Japan. *Psychological Reports*, 96, 337–348.
- Yamori, Y., & Horie, R. (1994). Community-based prevention of stroke: Nutritional improvement in Japan. *Health Reports*, 6, 181–188.
- Yanagita, K. (1988). About our ancestors: The Japanese family system (Y. Ishiwara, & F. H. Mayer, trans.). Westport, CT: Greenwood.
- Yip, P. S., Callanan, C., & Yuen, H. P. (2000). Urban/rural and gender differentials in suicide rates: East and West. Journal of Affective Disorders, 57, 99–106.
- Yonaharu, K. (1999). Ambivalence and identity in Okinawan literature. Japanese Book News, 26, 1-3.

Yonemura, T. (1994). Wet fallen leaves husbands and voluntarism. Aging International, 21, 37-38.