Culture of incense in Japan: *Aquilaria* spp. and their sustainable uses

Yoshimi　OSAWA
Department of Anthropology, University of Kent at Canterbury

大澤由実(2009)　日本における香の文化；*Aquilaria* spp.と持続可能な利用。　民族植物学ノオト 3:5-9。本研究は芳香性植物の持続可能な利用の一例として、日本の香文化について考察したものである。日本の香文化において沈香（*Aquilaria* spp.）は重要な存在であるが、沈香は国際的な保全の対象となっている。沈香なくして香道を含めた日本の香の文化は存在しないが、その沈香はすべて輸入に頼らなければ日本国内で入手することはできない。本稿では、まずは日本の香の文化の歴史について記述した後、沈香をめぐる保全問題についてワシントン条約との関係を含めて考察した。

Introduction

This essay will focus on the Japanese culture of incense as a case of sustainable use of aromatic plants. It has been suggested that the history of smell began when human beings first acquired fire, approximately half a million years ago. At this same time, people seem to have begun to be conscious of the existence of their sense of smell, especially being aware of the smell of smoke from burning woods in the fire. Interestingly, the English word "perfume" drives from the Latin per fume, meaning "through or by smoke". (Stoddart, 1990) Once people had a conscious understanding of smell, they began to assign significance to different odours. The importance of smell has been developed among people in different cultures, often taking on various cultural meanings. "Smell is cultural, hence a social and historical phenomenon. Odours are invested with cultural values and employed by societies as a means of and model for defining and interacting with the value (Classen et al, 1994:3)."

Aloeswood, gaharu, agarwood eaglewood, karas, and calambac are names for the fragrant, resinous, and the valuable wood produced by *Aquilaria* spp. They have been traded internationally for a long time as they are valued components in incense, perfume and traditional medicine (Schoff, 1922; Barden et al, 2000; Soechartono and Newton, 2000; Greenpeace Japan, 2005). The use of aloeswood has a vital role in many cultures, especially in Southeast Asia, south Asia and the Middle East. In Japan, aloeswood is essential to both the country's history and culture of smell. Although the Japanese culture of smell has a long history, it most likely has its origins in incense. The Japanese culture of incense in noteworthly in that the use of incense has evolved into a Japanese art form. In particular, Kodo "the way of incense" is remarkable as a traditional art. Aloeswood has long been at this Japanese culture of scent. Currently the demand for aloeswood continues to outstrip to supply (Barden et al, 2000), and concerns over Aquilaria spp. conservation has increased (Soechartono and Newton, 2000, 2001a and 2001b). There has tended to be a high demand for aromatic plants on a global scale, and many issues pertaining to the cultural significance of smell and the sustainable uses and conservation of natural species must be considered. This study will also explore sustainable uses of Aquilaria spp. by examining the history and traditional cultural uses of incense in Japan. The first part of this study will deal with the Japanese culture and history of incense use and the last part will examine Aquilaria spp. and their conservation issues.

History of incense uses in Japan

Throughout the long history of the culture of smell in Japan, religion had an important role in the development of the culture of incense. In the mid sixth century, Buddhism was officially introduced to Japan from the kingdom of Paekche in southwest Korea (Varley, 1973). The ingredients for incense, such as fragrant woods and resins, made their way into Japan at the same time Buddhism was introduced into the country. In other words, incense has had an essential role in Buddhist ceremonies and rituals (Gatten, 1977), and this has played a part in the conception and proliferation of the Japanese culture of smell in the early stages.

In Nihonshoki, the Chronicles of Japan, which was translated from archaic Japanese into modern Japanese by Ujitani (1988), there is a description of an aromatic wood, and this is regarded as the earliest description of incense. According to it, in 595 A.D. , several decades after the introduction of Buddhism into Japan, a bit wood drifted down to Awaji Island in the western part of Japan. People burned it with other woods and then, because of the fragrance of the burning smoke, they offered it to the Imperial court as a wonder. This aromatic wood is said to be aloeswood and it is one of the main aromatic plants in the Japanese culture of incense.

During the Heian period (from 794 to 1192 A.D.), incense had begun to have an important role not only in Buddhist rituals but also the aristocrats' daily lives. The way compounding or blending incense had begun to develop in this period. The aristocracy blended many kinds of ingredients into incense and enjoyed their own unique smells. " The ingredients for incense fall into two major categories: plants and animals. The plant products are by far the larger, and may be subdivided into fragrant wood (including aloes, sandalwood, and camphor); fragrant resins (amber, frankincense, benzoin, storax, and galbanum); and dried leaves, roots and flowers, especially those of pine and lily. Animal products consisted mainly of deer musk and seashells (Gatten, 1977:36)." The compounding or blending of incense was the most popular way to enjoy the smell in this period.

The main practical reason why incense had begun to have an important role in the aristocrat's daily life is that aristocracy gave great care to their grooming and appearance in this period. In other words, people tried to control their body odour with burning incense. The blended incense mentioned above was used to order to perfume their hair, clothing and rooms. The control of human body odour is a big interest for people not only in Japanese culture, but also in many parts of world. As Stoddard (1990) says, "all the evidence of anatomy, chemistry and psychology suggests that human beings are indeed the most highly scented of apes (72)", and people have long scared about their own body odour. Nowadays, the control of body odour is a major preoccupation for Western people and corresponds to the situation of more than one thousand years ago in Japan (Classen, 1994). Today the deodorant and toiletry industry is a billion dollar business.

Aloeswoods and their conservation issues

In recent years, people seem to acquire the appropriate use of smell in modern society and know how to enjoy it. For instance, the interest in aromatherapy has increased, as has the demand for essential oils. In particular, high quality essential oils such as the one extracted from natural plants have certainly increased in popularity and their market value has risen. As Verlet (1993) describes, natural volatile oils used in many industries such as fragrance or aromatherapy, have an estimated value in excess of USD 700 million per annum. Essential oils and many other types of scents sold commercially reply on natural plant essences. These have a high market

value in today's modern society, and production of them has steadily increased in order to meet the demands of the consumer.

Aquilaria spp. [Thymelaeaceae] is one such species with a high market value. The species currently is the focus of international attention because it is a source of aloeswood, "a fragrant resinous wood, which ranks among the most highly valuable non-timber forest products (Soehartono and Newton, 2000)." The market value of aloeswood is extremely high. "Aloeswood chips and segments may sell for several hundred to several thousand USD per kilogramme. The price of oil distilled from aloeswood is generally between five and ten thousand USD per kilogramme, but can be significantly more for aloeswood oil of exceptionally high quality (Barden et al, 2000:5)."

Aloeswood has mainly been used in Asia and Middle East and has been traded for a long time because of the attractive fragrance its resin emits (Schoff, 1922). Aloeswood's use as a medical product has been recorded in the Sahih Muslim from about the eighth century, and in the Ayuruvedic medicinal text the Sustura Samhita. Accounts of international trade in aloeswood date back as early as the thirteen century. Its use as a perfume has been recorded in the Old Testament (Barden et al, 2000). According to a CITES reports in 2004, the oil was also exported form medicinal use (i.e., aromatherapy) and also as incense for repellent.

Aquilaria spp. Have became the focus of increasing conservation concern as a result of the commercial activity directly related to its trade (Soehartono and Newton, 2000). According to the ICUN, The World Conservation Union, Red List Categories, Eight Aquilaria species are considered threatened and six of them are considered to be a risk from overexploitation (Barden et al, 2000).

The difficulty of cultivation of *Aquilaria* spp. is one of reasons why *Aquilaria* spp. are considered threatened. Despite high demand for aloeswood product, aloeswood has been mainly collected from the wild (Soehartono and Newton, 2001a). Projects for increase of aloeswood production via cultivation of *Aquilaria* spp. are seeking to artificially introduce *Aquilaria* spp. in several countries such as India, Indonesia or Vietnam (Barden et al, 2000). However, in general, such efforts do not succeed in producing aloeswood in commercial quantities sufficient to counterbalance the demand(Barden et al, 2000; Soehartono and Newton, 2001a). Therefore, thinking about the sustainability of wild harvesting is vital for conservation of *Aquilaria* spp.

At the same time, the regulation of their uses is necessary for thinking about the sustainability of wild harvesting. Soehartono and Newton (2001a) suggest that as populations of *Aquilaria* spp. occur primarily outside of nature reserves, the only way to conserve *Aquilaria* spp. is to regulate their uses. In 1994, *A. malaccensis* was incorporated into CITES, Conservation of International Trade in Endangered Species of Wild Fauna and Flora, Appendix Ⅱ(Soechartono and Newton, 2001a). In addition, the thirteenth meeting of the conference of the parties to CITES took place in Bangkok, Thailand in October 2004. In this meeting, CITES amended the Appendices and all *Aquilaria* spp. have been included in Appendix Ⅱ from the consideration by the Parties of CITES. The new appendices entered into force on 12 January 2005, ninety days after this meeting. However, the efficiency of CITES to control their trade has been called into question. According to the report form Soaehartono and Newton (2001a), " the problem of defining what constitutes and appropriate harvest quota undermines the value of CITES listing; this may account for the fact that harvesting of gaharu in Indonesia has actually increased substantially since listing of *A. malaccensis* on CITES Appendix Ⅱ in 1994. Such difficulties raise questions about the value of CITES as a conservation tool in Indonesia (39)."

As a result of both high demand for their products and a decreasing supply of *Aquilaria* spp., the market price of aloeswood has increased. A vicious circle has been created since this increased

value leads to more extensive harvesting. Future trends in the trade of *Aquilaria* spp. and their products after the enforcement of CITES must be considered.

Kodo is not as famous in traditional Japanese art on either domestic or international levels compared to Chado/Sado "tea ceremony" or Kado "flower arrangement"- both of which evolved during the same period as Kodo. The reason why Kodo did not become famous seems to be related to aloeswood and the fact that there is only one species of plants that people can use for Kodo. Aloeswood is a very rare and valuable natural product and it has been treated with caution and respect within the incense ceremony. There is not any aromatic wood that can be a replacement for aloeswood. During the ceremony, people break off and burn small pieces of aloewood, as required, so therefore large sections of wood will last several years (Barden et al, 2000). If there is no aleswood, the incense ceremony can not be viable. The extinction of *Aquilaria* spp. also signifies the disappearance of the incense ceremony. However, *Aquilaria* spp. does not grow in Japan, and so the Japanese traditional incense use has completely depended on the import of species from overseas.

"Odours affect us on physical psychological and social level. For the most part, however, we breathe in aromas which surround us without being consciously aware of their importance to us (Classen et al, 1994:1)." International trade of wild plants for the purpose of using their aroma has been increased and this trade could mean "a threat to the survival of the species (Soechrtono and Newton, 2001a)". In this pressing circumstance, conservation issues of aromatic plants and their sustainable uses should be considered together. The specific character of *Aquilaria* spp. has made them widely known plants among people of many cultures. However, the specific character also has made them objects of conservation. The possibility and potential of a plant and its cultural background are necessarily called into account always when their conservation issues are considered. In Japan, after the Meiji period (from 1868 to 1212 A.D.), the use of incense had been exchanged for the Western custom of wearing perfume. Yet recently, a revival in the art of Kodo has taken place, and with it has come a renewed interest in aloeswood (Barden,2000). The Japanese culture of incense has developed as an art with high spirituality. The sustainable uses of aromatic plants have been kept within cultural contexts through certain manners and roles. The variety of smells of aloeswood reflects the diversity of nature. It could be said that the Japanese culture of incense which came into existence because of the natural supply is also directly related to the sustainable cultural uses of aromatic plants.

Bibliography

Barden, A, Anak, T mulliken t. and song, M. (2000) Heart of the matter: agarwood use and trade, and CITES implementation for *Aquilaria malaccensis*. TRAFIC International.

Classen, C. Howes, D, and Synnott, A. (1994) Aroma. Routledge

CITES, Amendments to Appendices I and II of CITES. Retrieved March 25 2008 from http://www.cites.org/common/cop/13/raw_props/ID-*Aquilaria*-gyrinops.pdf

Gatten, A. (1997) A wipe of smoke. Scent and character in the tale of Genji, Monumenta Nipponica. 32(1). 35-48

Greenpeace Japan, CITES cop 13. Retrieved March 25 from 2005 from http://www.greenpeace.or.jp/campaign/forests/cites13/jinkou_html

Schoff, W.H. (1922) Aloes. Journal of the American oriental societies. 42. 171-185

Soehartono, T. and Newton A.C. (2000) Conservation and sustainable use of tropical trees in the

genus *Aquilaria* I. Status and distribution in Indonesia. Biological conservation. 96(1). 83-94
Soehartono, T. and Newton A.C. (2001a) Conservation and sustainable use of tropical trees in the genus *Aquilaria* II. The impact of gaharu harvesting in Indonesia. Biological conservation. 97. 29-41
Soehartono, T. and Newton A.C. (2001b) Reproduction ecology of *Aquilaria* spp. in Indonesia. Forest ecology and Management. 152. 59-71
Stoddart, D.M. (1990) The scented ape. Cambridge University Press.
Ujitani, T. (1988) Nihonshoki: Ge. Kodansha
Verlet, N. (1993) Commercial aspects. In Hay R.K.M. and Waterman P.G. 9eds) Volatile oil crops. Longman Scientific and Technical.