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# **Made-by-hand: [Re]valuing traditional (Japanese) textile practices for contemporary design**

**Tim Parry-Williams**, Bath Spa University

## **Abstract**

Textiles touch all our lives – from the cradle to the grave – and serve increasingly diverse purposes. Historically, and as one of the first industrialized commodities, the skill and knowledge required to construct fabrics to clothe and furnish has dominated cultures worldwide. Contemporary Japanese textile design draws on countless traditions of often ancient but sustained craft practices. These traditions both respond to and employ the natural condition of things, exercising heightened and honed sensibilities to material know-how. Discussed through the discipline of woven textiles and, in particular, ‘traditional’ Japanese production systems, this article seeks to identify the location and distribution of both practical and aesthetic expertise in textile making and its transferable value for contemporary practices. The article presents case studies of surviving vernacular ‘cottage’ industries, where highly organized systems of knowledge exchange, spanning agricultural fibre production to direct technical instruction in thread making, ensure effective engagement with and ‘management’ of a very specific materiality. The notion of intangible cultural property will be discussed in the context of inherited knowledge and how traditional social hierarchies and knowledge systems have served to nurture and perpetuate the sharing of skills and understanding through generations of textile makers and making.

## **Keywords**

craft

materiality

expertise

inherited knowledge

Intangible Cultural Property

traditional

contemporary

hybridity

## **Introduction**

This article and the nature of its subject emerge from a sustained engagement with vernacular (woven) textile-making traditions, newly reviewed in light of contemporary developments and trends in textile making. The background to the research is both practice based (attached to a sustained studio practice in hand-weaving and industrial production) and historical/anthropological (looking at cultures of traditional yarn-making practices, especially in Japan). The theoretical context considers traditional knowledge exchange mechanisms and aesthetics in the Japanese vernacular alongside established trends in contemporary textiles. This comparative approach provides the framework against which we might understand the values and application potentials of handmade yarn-making practices and associated knowledge systems.

The methodology encompasses both practical and philosophical approaches to applied research, being centred on (renewed) periods of focused observation, with the aim of identifying methods and materiality that might be captured and applied or at least translated to contemporary textile design. The sample case studies presented (ramie, hemp and paper yarn making) represent examples of increasingly rare traditions.

Pressures of contemporary society – namely, economics – mean that most practices have fallen by the way as their conventional functions, formats or contexts have been perceived as irrelevant.

One significant challenge of traditional textile yarn materials are sets of highly distinct characteristics (roughness, irregularity, inconsistency, etc.), which, while contributing to the unique nature and character of resulting textiles, negate any commerciality in terms of production. This is commonly the reason for their fall into decline – laborious work and a challenging materiality cannot easily translate into the speed or fickle tastes of contemporary demand. This research seeks to begin to address this imbalance by focusing on the potential character or nature of yarn and textile material as derived from particular fibre–yarn conversion techniques and deliverable through the sustained and modified use of established systems.

### **Traditional craft and (intangible) cultural property (in Japan)**

Before the textile practices in question can be discussed it is necessary to consider the cultural and political contexts in which they exist. This research focuses on sampling and explores a number of ‘traditional’ (Japanese) textile crafts, which are long established and are distinct in their specialist practices, specific materials and vernacular identities. As with many craft traditions in the national context, each is viewed as an example of ‘cultural property’. Since the mid-twentieth century, global systems for the recognition of cultural properties have become increasingly established, providing organized and fiscal support for their preservation and continuance. UNESCO<sup>1</sup> heritage awards are the most well-known formal mechanisms, with other national systems in place globally.

Formal identification of cultural property is further divided by recognizing that which is ‘tangible’, the object of making, and the ‘intangible’, recognizing the understanding or knowledge held by an individual, or individuals, that facilitates the act of producing a defined cultural artefact or tradition.

In Japan, the classification ‘Intangible Cultural Property’ was defined in the 1950s (essentially through the Law for the Protection of Cultural Properties)<sup>2</sup> in order to facilitate support of the skills underpinning craft traditions. Two original criteria for deciding ‘Intangible Cultural Properties worth of measures to support them’ were ‘[skills] of particularly high value’, and ‘[skills] which if they were not supported by the government were in danger of disappearing’ (Kaneko cited in Rousmaniere 2007: 10–11). In addition, stipulation for selection made in the case of transmitted craft skills with special techniques was that the main effort was put into recording the technical process. The formal system was therefore sought to identify and preserve high value skill that might facilitate continuity of practice.<sup>3</sup>

Individuals who personify or singularly champion distinct craft practices are identified as ‘Holders of Intangible Cultural Property’ and more commonly recognized as ‘Living National Treasures’. Conditions of this award are that the craft occupies an important position in the history of Japanese art crafts and that it has distinctive regional characteristics. Importantly, in addition to the honour of the designation, it brings assistance in training successors who might perpetuate the technique (Kaneko cited in Rousmaniere 2007: 12).

This appears wholly ideal, but debate exists around the deeper cultural impact of such systems of recognition and the skewed authenticities and super cultures that can emerge, creating a place of contradiction, as perhaps formerly marginal and ethnic production moves into majority consumer arenas and ‘market’ focus begins to influence the format of the craft textile being produced. There is therefore a sophisticated culture of understanding and recognizing of craft skills, and, while cultural tensions and questions do exist, there is nevertheless a very useful framework or background for close investigations of the handmade.

### **Inherited knowledge traditions: Organized systems in the Japanese vernacular**



**Figure 1:** Anon. (1914), Kudzu fibre processing, Kakekawa, Shizuoka, Japan, c.1914.

Inherited knowledge might be defined as that which is intentionally passed on from one to another, across generations through familial or more broadly communal relations, to ensure continuity and perpetuation of some given understanding. Traditional models are rooted in the rural context, typified by people working together on extended and often

sophisticated skilled tasks (as seen in Figure 1, where a group of women process *kudzu* fibre for yarn making). Traditionally, such learning, teaching and sustained practice is often embedded within daily living,<sup>4</sup> but inherited knowledge can be managed by more structured and strategic methods, in order to either control or retain special expertise, or facilitate knowledge dissipation (and application) for broad mutual gain.

### **Iemoto**

In the Japanese context, social or political structures are often moulded on traditional human associations of the family model, characterized by vertical relations, clan, or foster-parent–child constructs (Dale 2011: 100). Historically, this system has been particularly prevalent in the arts, and ‘iemoto’ or ‘head of the household’ title was traditionally<sup>5</sup> applied to the founders or inheritors of both knowledge (teachings, secrets) and objects (prized artefacts) relating to the arts. It was through carefully managed familial and pyramidal structures, with the iemoto at the top, that teachings were passed down through the generations. This status gave the iemoto the power and authority to final arbitration on any points of practice or technique, and as such it was also a valuable source of revenue, similar to modern-day patents (Juniper 1967: 11–12).

Historically this system has also had an influence on the understanding and development of aesthetics. Primary text sources, artefacts and other materials needed for scholarly research were often controlled by iemoto families. Artfully obscuring ‘exotic’ aesthetic concepts like ‘*wabi-sabi*’,<sup>6</sup> but tantalizing the consumer with glimpses of its value, was the most effective means of marketing and entrepreneurship (Koren 2008: 16–17).

Traditionally therefore, iemoto families exercised an intellectual and social elitism. But in terms of the arts themselves, the real advantage of such a system is the great degree of

protection and efficient transmission of the special knowledge of a technique that is ensured by the familial line (Rousmaniere 2007: 15–16). In a less archaic form, therefore, the iemoto system is still valuable, since with its hinging on sustained human relations it has the power to preserve and ensure vital transmission of knowledge.

### **Houzonkai – co-creation and collective practice**

Contemporary organized systems reflect a broader reach of craft knowledge management. The survival of many traditional textile production centres in modern Japan is often thanks to the formation of Houzonkai, or preservation societies. These groups of local people or specific craft enthusiasts come together at given points in the year to carry out the work associated with particular textile traditions. Within these groups, experts train new members in fine motor skills, use of various tools and systems, and exercising of specific judgements, so that all might be autonomous within the system and be able to work at maximum efficiency and competency.

While such, often voluntary, groups reflect long-established systems of specific social organization, they are a relatively modern phenomenon. Many houzonkai actually exist as part of a larger organized structure, where they have been created in association with cultural recognition by the Agency for Cultural Affairs. This brings monetary subsidy and cultural support to preserve such traditions and ensure their perpetuation, and preservation societies are a common stipulation of the very advantageous recognition.

In terms of traditional textile production, this organized system is often a very appropriate strategy in avoiding a ‘missing-link syndrome’, whereby weavers learn all

steps of production so that they might produce the textile entirely on their own (Rinne cited in Hamilton and Milgrim 2007: 153).

Thus, by sheer enthusiasm and/or by specific cultural, social and economic organization, *houzonkai* serve to preserve vital skills and knowledge and therefore represent a perfect mechanism for the sharing of ideas and division of highly efficient and sustainable productive labour. Opportunity exists, therefore, to extend and build upon the established craft paradigms and make contemporary interpretations of techniques and production, employing sets of skilled individuals, sustaining demand for material resources and contributing to the broader activities of such groups in preserving vernacular traditions.

### **Contemporary (Japanese) textiles: Hybridity and the postmodern condition**

Material culture in Japan is expressed through a multiplicity of aesthetics, both distinctly ‘Japanese’, or assimilated from other cultures, including those of faith,<sup>7</sup> of traditional artistic movements or specific aesthetics including ‘*Wabi-sabi*’,<sup>8</sup> of ideas rooted in popular (historical) literature,<sup>9</sup> and, in the case of textile crafts, of ideas associated with traditional textile or clothing cultures (kimono).<sup>10</sup>

Historically, Japanese aesthetics have been highly regarded values on which much importance has been placed. Indeed, of Heian culture<sup>11</sup> it is said that artistic sensitivity was more highly valued than ethical goodness and, despite the influence of Buddhism, ‘society was on the whole governed by style rather than by any moral principles. The word *yoki*<sup>12</sup> referred primarily to birth, but it also applied to one’s beauty or aesthetic sensibility’ (Theodore de Bary 2011: 1–2). The nature and context of these broadly

established aesthetics are therefore vital in understanding the conditions in which contemporary material thinking resides. In this way aesthetic sensibility, as an established part of Japanese cultural thinking and ‘feeling’, contributes to the (unconscious) philosophical and intellectual perspective of the makers themselves, informing the learnt value systems or judgement mechanisms of craft and knowledge-sharing practices.

Japanese textile culture is rooted in these rich traditions and histories, which have underpinned the establishment of its distinct industries, both traditional and modern. However, since the 1990s Japanese textiles have become increasingly recognized for embodying ingenious convergence of mechanical and industrial techniques with labour-intensive hand-working methodologies.<sup>13</sup> In seeking to identify the origins of these characteristics, links have been made between traditional religious beliefs and practices, and a heightened awareness, sensitivity and connection to nature and material. At the same time there are numerous cases of pioneering practices of industrialization and experimentation, incorporating both ancient and innovative technologies, appropriation of practices from other production sectors,<sup>14</sup> and the strategic engagement of active (rural) craft traditions, thus, aesthetically speaking, ‘avoiding standardization in the pursuit of the sublime’ (McCarty and McQuaid 1998: 7–13). The result is that the traditional and the super advanced have been shown to coexist in harmony (Braddock Clarke and O’Mahony 2005: 13).

This trend is best defined as a form of ‘hybridity’, a fashionable term, often at the locus of contemporary design practice. Its roots are in postcolonial discourse around political identities of difference and ‘the other’, which are beyond the remit of this article.

However, it is useful to consider the ideas of hybridity as a manifestation of cultural iteration and translation, of the blending or bringing together of potentially oppositional elements, or ‘uneasy mixes’, resulting in a new, unified, alternative or ‘cultural other’. Polyphony or multiplicity is a chief characteristic of hybridity, and something much evident in contemporary (textile) design practices, as it is often the combining of multiple (differential) elements, which results in traits of huge distinction. Hybridity is also often identified with strategies of subversion, or deliberate acts to defy accepted laws of an object or material and challenge ‘presumptive norms’. However, in tangible form it tends to acknowledge the roots of its ‘descendancy’, with design often making very clear the elements it plays with (Dean and Leibsohn 2003: 5–8; Hybridity 2014). With its absence of ‘purity’, hybridity also raises questions of authenticity, and this unease can only add weight to the impact of hybrid design, thinking and making.

Of the condition of contemporary textile practices, Hemmings affirms that the trend of hybridity is on a continuing trajectory and is an inescapable reality (2004). Hybridity, then, is *de rigueur*, and these observations reflect on what has remained a sustained trend of inter-materiality and interdisciplinary practices, intervention and manipulation. These approaches by their extensive rule breaking, intuition and refined sensibility have come to define what is most desirable in contemporary (textile) design practice.

However, in respect of the ‘handmade’, much celebrated innovation is tempered by necessary commercial pressures, often resulting in inevitable compromise through the use of equivalent or alternative material or process. As Braddock Clarke and O’Mahony indicate, the trend also leaves space for the often rejected ‘traditional’ within the desirable, hybrid ‘contemporary’. Opportunity emerges therefore to employ the distinct

practical knowledge and material insight of the authentically handmade within the spectrum of a new, more pragmatic approach to contemporary textile design and making, and this provides the focus for the following studies.

### **Case studies**

The research seeks to consider the use or application of a certain kind of ‘making knowledge’, which is shared and distributed among textile workers. This understanding constitutes various levels of intangible knowledge or practical know-how<sup>15</sup> and relies on core tacit knowledge,<sup>16</sup> manifested as shared knowledge through making. For the purposes of this article, this is the knowledge associated with (raw) materials in textile making, as well as specific tools and processes or techniques employed.

Recording, analysis and ‘unpacking’ of the shared and applied knowledge in the case study practices have revealed key points of technical and material understanding. While it is these elements that facilitate continuation of the associated established traditions, at the same time they represent an opportunity for contemporary interpretation.

### **Case Study 1: Bast-fibre traditions**

The Japanese word *Asa* is commonly translated into English as ‘linen’ but encompasses the much wider group of textile materials in the ‘bast’ or plant-stem fibre group. These include flax, ramie, hemp, wisteria and a number of tree vines. The *asa* group is of primary significance in Japanese textile history and culture, since, until the introduction of silk, cotton, wool and, later, synthetics, all Japanese textiles were made from these native plant fibres. Rapid adoption of the newer, easier to produce or processed fibres means that many *asa* traditions have long vanished. However, a few important centres

survive, producing relatively small amounts of fibre, essentially utilized in the making of now formally recognized and protected textile groups.

The focus for the purposes of the research is the nature and application potential of the plant to fibre, and fibre to yarn, conversion systems. In respect of raw material to fibre, the bast group represents some of the timeliest processes known. The nature and sheer volume of work demands significant and sustained people power.

### **Fibre – ramie (plant to fibre conversion)**

Showa is a village located high in the mountains of western Fukushima Prefecture in Japan. Here *choma*, or native ramie, *Boehmeria nivea* (plant shown in Figure 2, left), is cultivated and harvested, yielding a light glassy fibre traditionally used in fine summer-weight kimono. Centuries-old trade with neighbouring Niigata Prefecture continues today, enabling the weaving of UNESCO-recognized Echigo Joufu and Ojiya Chijimi, among the most expensive hand-woven textiles in Japan.

Growing cycles mean the work is seasonal but there is year-round tending of fibre crops by local farmers. Typical of bast fibre to thread conversion, the work involves a number of stages: first, carefully nurtured plants are harvested and cut to cane lengths (Figure 2, left-centre). These are bundled and dew-retted for 24 hours in shallow pools. The canes are then skinned for their outer layer, which contains the bast fibre, which is then ‘scutched’, or scraped clean (Figure 2, centre-right and right). This latter work, carried out by the village women, is perhaps the most important since it sets the quality of the fibre for later thread making. The work is highly skilled and demands years of practice.



**Figure 2:** Parry-Williams (2012), Ramie fibre processing, Showamura, Fukushima Prefecture, Japan, August 2012. © T. Parry-Williams.

Knowledge exchange and practice in Showa-mura takes three forms. The first is the established houzonkai model, which operates through a centrally managed and subsidized research and visitor centre. An annual programme of organized harvest and conversion facilitates the production of sufficient fibre to sell to the Echigo Joufu industry in neighbouring Niigata, ensuring the practice can be sustained.

The second system, established in the 1990s, remains somewhat pioneering, taking the form of an annual year-long training course called Orihime or ‘Weaving Princess’, aimed at young women from outside the community. As anthropologist Melissa Rinne indicates, the objective lies beyond mere training in the local tradition: ‘It was hoped that while learning a full range of textile production techniques – including fibre cultivation, thread making, and weaving – students would experience life in the village and possibly even decide to marry and settle there permanently’ (Rinne cited in Hamilton and Milgrim 2007: 153).

In order to be able to complete the full range of highly skilled, timely and repetitive processes, both of these organized systems rely heavily on group participation or a ‘division of labour’, a notion that often brings negative cultural associations.<sup>17</sup> However, the system ensures that important knowledge and material value sets are distributed and

intensified through specialist practice, which in turn leads to maximized quality and productivity.<sup>18</sup>

The third model is of traditional cottage industry, where skilled individuals, often initially trained in the houzonkai or orihime course, work from their own homes and farm plots. Operating outside the security of the houzonkai, these craftspeople necessarily train themselves to reach significantly high standards of expertise, producing fibre and thread of the highest grades and often choosing to engage in the whole process – from raising plants for fibre to weaving cloth. Both can be sold directly into the elite Joufu industry, thereby ensuring maximum fiscal return for what is a high-value craft commodity.

### **Fibre – hemp (plant to fibre conversion)**

‘*Taima*’, ‘*Ou-asa*’ or hemp, *Cannabis Sativa* (crop plants shown in Figure 3), has been harvested in earnest in Agatsuma village in northern Gunma Prefecture, Japan, since around c.1550. Agriculturally, hemp cannot be easily grown in many areas, since, apart from the need for a fairly constant humidity, the roots are very short and the plants will not stand up to prevailing winds. As such, only small plains, surrounded by steep mountains, are suitable for farming hemp. Agatsuma is blessed with ideal geography, and at one time the area boasted the highest taxes in the country, based purely on the revenue from hemp fibre produced. The fields were literally green gold to the people that lived and worked there. Today in Agatsuma, only one small plot is raised each year. The fibre produced (about 5kg per annum) is traded with weavers in Nara Prefecture, who in turn make thread and weave bolts of *Nara zarashi* cloth, which forms annual

tribute to the emperor and the Ise-Shrine, the most important Shinto shrine in Japan.

This significant ‘trade’ sustains the hemp fibre tradition itself.



**Figure 3:** Parry-Williams (2012), Hemp fibre processing, Agatsuma Village, Gunma Prefecture, Japan, 2012. © T. Parry-Williams.

Many of the processes in hemp fibre production are similar to those of ramie, with a number of minor exceptions or variations. Some of these are material – for example, where harvested canes are boiled and partially ‘rotted’ as part of the retting process. However, in terms of organization, labour is divided quite differently among workers, and, contrary to the choma tradition, cane skinning is carried out by women, and scutching by men (Figure 3, centre-right and right). This established practice is perhaps partially due to the sheer length of the fibre material (about 180cms) and the necessary ‘wing-span’ of workers in handling it, such that generally taller men are more capable of undertaking this work. As with many such groups, age and therefore experience is an important and valuable asset, and the oldest fibre-makers in Agatsuma are happily working through their 80s.

Knowledge and knowledge exchange<sup>19</sup> here is organized in the *houzonkai* model, with a group made up of volunteer local enthusiasts (shown working in the fields in Figure 2, centre-left), some with family connection to the tradition, managed by a prefectural officer, whose remit it is to sustain and advance understanding of the tradition. The *houzonkai* is typical in adopting the soft assignment of roles and responsibilities within

the group and community, ensuring learning and retention of the defined knowledge, and its passing on to others, serving a specific set of values and goals (Young and Brunk 2012: 162).

Engagement with the Agatsuma Houzonkai in the summer of 2012 revealed a strong collegiate bond, but despite the security of the demand for the fibre in Nara there was concern over long-term prospects for the tradition in the face of challenging sustainable recruitment to the all-important voluntary workforce. Opportunity presents itself therefore that additional and evolved use and application of the hemp fibre produced<sup>20</sup> might well stimulate increased interest in and expansion of the tradition.

### **Thread making (or fibre to thread) - ramie and hemp traditions**

In the case of the sampled bast-fibre practices, thread making has long been the remit of the trading partners, the Echigo joufu (Niigata) or Nara Zarashi (Nara) weavers. In both cases, the skill and expertise lie in the conversion of the prepared fibre to a working thread. This takes great dexterity and accuracy, as it needs to deliver a yarn that can undergo the stresses and strains of functioning as warp or weft thread in weaving.



**Figure 4:** Parry-Williams (2012), Ramie thread-making, Ojiya, Nigata Prefecture, Japan, 2012. © T. Parry-Williams.

In brief, the process involves taking a single length of fibre, using the fingernail to divide it in half lengthways, and, working from the middle out, running the open index

finger and thumb to the end to split the length (Figure 4, centre-left and centre-right). The two pieces are divided half and half again, until the desired width or thickness is achieved in multiple lengths. These are then joined end-to-end by splitting, splicing and twisting the ends of the fibre together to form a fine continuous thread (Figure 4, right). Once sufficient length of thread has been made, a twist is added by spinning, using a vertical hand-wheel to provide the strength and relative uniformity it needs for weaving. The resulting thread is crisp and very light, with a smooth surface, barring bumps and texture at the points where joints have been made, or where natural irregularities occur.

The knowledge exchange in thread making is of particular significance, since the fluid embedding (of a value system) of a set of standards or 'norms' (in thread character) ensures the consistency of material output. Opportunity exists therefore for careful and strategic re-articulation of these standards in the knowledge exchange cycle in order to facilitate an increased 'range' of thread character outputs (varied surface qualities, thicknesses, and hardness or softness or even elasticity, resulting from the degrees of twist applied through the length of the thread in spinning) that might contribute to a greater diversity of applications. While echoing the underlying tradition, these could make innovative use of these highly sustainable and therefore desirable natural materials.

### **Applications through the research**

Despite significant quality achieved through expert skill, the nature of such yarns (in their broad inconsistencies) makes them difficult to work with outside their traditional context, where they can be handled entirely by hand and with the tools adapted and designed for their management. Industrial application is almost unheard of. As such, applied research with these materials at this level has thus far been very moderate.

Hand-weaving, however, has explored the use of the materials both in their own right and in conjunction with secondary complementary or contrasting fibre groups – in particular, silk – employing the bast fibre as a regular weft insertion element. This has resulted in some interesting outcomes where surfaces become distorted and buckled, mainly through material differentiation (as seen in the hand-woven sample shown in Figure 5, right). With careful manipulation of machine parts and technical patience, this approach has also been echoed with industrial weaving to trial the same or similar material combinations, exploring weft densities and subtle structural play to create characterful textured and ribbed surfaces (Figure 5, left).



**Figure 5:** Parry-Williams (2013), ‘Blister’, silk and hand-spliced ramie trials: Mill woven left, hand-woven right, 2013. © T. Parry-Williams.

## **Case Study 2: Paper yarn making**

This study centres on the making of paper thread employed in the weaving of *shifu* (literally ‘paper-cloth’). Paper textile weaving in Japan dates from c.1600s, beginning as a resourceful solution to a lack of materials, where it was used for simple work wear, underclothes or domestic textiles. After the samurai classes recognized the technique and refined it, *shifu* kimono became a precious status-rich craft commodity and it was

quickly adopted for ceremonial purposes. The nobility began to favour special wear shifu clothing in c.1700s, and by the second half of the Edo period<sup>21</sup> most paper-producing areas also had large shifu workshops. But fashionable tastes shifted, and by the end of the Edo period shifu clothing was again the stuff of the resourceful working classes. In c.1920s, shifu production stopped with a pause of traditional paper production, and, despite a marked revival in c.1950s during a broader ‘movement of the national consciousness’ in the recognition of traditional crafts, lack of practical demand in the face of competition with more readily produced materials in the following years means very little practice remains today (Leitner 2005: 22–26).

In its traditional form, shifu is woven from finely sliced, rolled and twisted paper. It demands the use of (inherently fibrous) *washi* paper, which is in itself a sophisticated handmade product.<sup>22</sup> As such, shifu production is extremely time-consuming and it remains a luxury textile. However, the appeal of gentle material sophistication and genuine sustainability has stimulated continued interest in paper, and contemporary technologies have facilitated industry-level production of a variety of paper yarns.

As such, contemporary fashion and textile designers (most recently Issey Miyake, S/S 2012) have been able to cleverly employ its unique handle and character in the creation of some very modern textiles. Paper cloth itself is light and fluid and ordinarily has a smooth dry handle, subtly grainy surface, and intriguing plasticity.

The research has looked at a number of paper yarn production systems, focusing initially on the traditional technique as a primary reference. In the context of Japanese textile making, it is the thread-making process that represents the most distinct ‘art’. Essentially this involves, first, folding a sheet of washi into a flat ‘w’. This is then finely cut with a

blade in even denominations, leaving the border band of the paper edges uncut (Figure 6, top-left and top-centre-left); the resulting ‘slithered’ sheets are then dampened to increase strength for the next stage. The divided sets of ribbons are laid down on a semi-rough surface and rolled back and forth under the palm so that the individual strips begin to take on a tubular form (Figure 6, top-centre-right). The bunch is regularly opened out during rolling to ensure the strips remain separate. This is set to dry (Figure 6, top-right); the rolled sets are then divided using the uncut border (at top and bottom), breaking off every other ‘joint’ (making a continuous ‘zigzag’) and twisting this into the material to form a rudimentary thread. This is repeated and built up in some volume; finally this thread is twisted and wound onto bobbins using a horizontal hand-wheel (Figure 6, bottom).



**Figure 6:** Parry-Williams (2011), Washi (paper) yarn making, Mito, Ibaraki Prefecture, Japan, 2011. © T. Parry-Williams.

The resultant thread has characteristics that are derived directly from its making. It has a unique linear volume, and a varied texture of surface through its length resulting from the longitudinal and circular closing of the slithers at rolling stage, and the degrees and distribution of longitudinal compression from spinning. It is light and bouncy, with a crisp yet giving surface. Its character is somewhat wild and it does not want to lie flat, even at a shortened length, where the cut end flares.

An individual thread-maker and spinner, with their personal experience and tacit skill set, is therefore able to produce single or multiple qualities of yarn. The fact it is handmade means there is flexibility for continuity, or subtle or regulated variation, which might bring added interest and unique value. Currently, while hand production is extremely limited in its scale, the basic skills might be shared fairly easily.

Modern technologies have facilitated new forms of sliced and twisted paper thread, and one or two specialist producers<sup>23</sup> have mastered viscose systems, using plantain fibre (which is very easily raised), to deliver continuous 'filament' paper yarn in ultra-fine weights. This is in sharp contrast to the limited, established (industrial) systems making twisted paper thread. Materially, this necessarily needs to use mass-produced paper in roll form, which while strong (and importantly long) has none of the fibrous density or character of the washi paper, which can only be produced in large sheet form at its maximum.

In terms of productive engagement with the (traditional) process, again the knowledge and value-based standards embedded in thread making are of primary significance.

Broad opportunity exists for organizational management and production of an increased

range of defined yarn qualities in ranges of thickness (at cutting and rolling), ‘over-twisting’ in spinning (resulting in controlled hardness or wiry-ness, or elasticity), and deliberate variation or consistency through the hand-built length. These might then be employed in contemporary textile production systems in the creation of modern textiles that embrace the chief material characteristics of the tradition.

### **Applications through the research**

Continuing applied research work has employed a number of paper yarn materials and approaches. Through hand-weaving, traditional twisted yarn has been used as a complementary or accent material with other base fibres – namely, raw silk, which has a similarly dry, crisp handle and character. The resulting fashion accessories have a unique buckle or distortion to their surface due to material differentiation, but in particular the ‘stiff’ nature of the paper material employed (shown in Figure 7, left).



**Figure 7:** Parry-Williams (2011–2012), ‘Paper pinstripe’ scarf / ‘Paper rib’ studio sample (commercial twisted paper) / industrially woven trials exploring structure and density (commercial ‘viscose’ paper yarns), 2011–2012. © T. Parry-Williams.

Industrial weaving has been used to trial both twisted and viscose-manufactured paper yarn. Based on hand-weave trials (Figure 7, centre), early sampling repeated silk:paper combinations, but, embracing the limitations (and challenges) of the industrial loom, introduced the twisted paper yarn as weft insertions into the body or face of a silk base.

Again, material differentiation and the high density of the fine base warp and accent weft material allowed the paper yarn to buckle on (and through) the surface, creating significant texture and form. Mill trials exploring the filament paper yarns exclusively focused on woven density and subtle structural variation to adjust the surface handle and drape of the cloth (Figure 7, right). Sampling also considered the use of secondary materials to explore the diverse potential of the commercially produced paper yarn. Cloths were also coated in finishing to create uniquely polished surfaces. This work was aimed at and marketed to the high-end apparel market in Japan and Europe.

Recent work is seeking to explore the potential of layers of ‘intelligent’ woven surfaces, exploring both variable character of the paper material (yarn surface character and degrees of twist) and the use of established small-scale patterning traditions – namely, colour and weave (as shown in Figure 8). This facilitates the creation of layered, textured and simply patterned cloth, which might best employ both the automation of the industrial system and the qualities of handmade materials. It also represents potential for other digital interfaces – namely, print and cut – which might exploit the readily manipulated paper material.



**Figure 8:** Parry-Williams (2012), Colour-and-weave hand-woven cloth trials, unfinished (commercial ‘viscose’ paper yarns), 2012. © T. Parry-Williams.

### **Conclusion - revaluing the handmade - the case for a ‘new hybridity’**

Throughout the text and case studies it has been seen that, in Japan, cultural norms nurture a variety of understandings – from broadly appreciated aesthetics to popularly accepted constructs of craft intellect. In this climate, established inherited knowledge systems easily and effectively preserve and perpetuate vital skills, appreciation and understanding. Further, organized knowledge systems represent ideal mechanisms for the development and transmission of new aesthetic understanding.

The sampled textile crafts, representing defined traditions, deliver very specific materiality for particular purpose. The skills and intellect that facilitate this have the capacity to extend and build upon already established paradigms. As such, it appears there might be place for careful blending or development of specific elements, which, although having their origins among examples of high cultural materiality, offer uniquely rich vocabulary for contemporary assimilation or interpretation. Each might champion the true character of the original, but carry a fresh and engaging currency.

Rinne warns us that over-extension of traditional practice can take too much away from the precarious original so that it loses its authenticity and assured identity:

As the relative value of hand-woven bast fibre textiles in society becomes increasingly precarious, the continued survival of these and other similar traditions may very well depend on the ability of their producers to pinpoint problems and then re-envision their textiles within their localities, Japan, and the

global community, leading them into unchartered and certainly contradictory territory. (Rinne cited in Hamilton and Milgrim 2007: 153)

Szulanski describes how there is a 'stickiness' associated with knowledge:

One of the challenges of adopting or making use of such special know-how, or material resource, is the potential sense of loss at the 'source' – this might be cultural in that the 'original' is becoming something new or alien 'other', that social or political cultural identity is being compromised, or that economic return doesn't duly acknowledge the original. (Szulanski 2003, cited in Seidler-de Alwis and Hartmann 2008: 142)

However, it is the gift and charge of the informed innovator to bridge these gaps, and to make space for the previously unconceived. Methodologies might then be about continued 'elemental' or selective use of these materials in happy or playful conjunction with the suitably similar or appropriately different 'others', thereby continuing the prevailing trend for hybrid, collaged materiality, but seeking to retain the true voice of the textured, imperfect original. Alternatively, perhaps these materials might be employed purely and simply in their 'authentic' state, explored through highly sensitive and considered ways, looking much closer and deeper at the character and nature within the traditions and the intellect of the discipline, exploring surface, thickness, texture and degrees of twist, made-by-hand and 'redesigned' to do something else, towards new surfaces and new applications.

Contemporary textile design needs to embrace traditional practice in its fullest sense, operating out of the fields, workshops and factories of both urban and country locale, employ willing hearts, minds and hands, sustain the fullest portfolio of material and fibre, and, while acknowledging and partnering tradition, inspire a new hybridity and textile future.

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### **Contributor details**

Tim Parry-Williams is a practising weaver and design-maker, educator, researcher, curator and consultant. Initially trained at Farnham (now UCA) and later in Japan, he has worked on an extensive portfolio of projects with leading designers and makers, industrial partners, traditional craft weavers and museums, contributing to commercial and developmental projects, collections, exhibitions and conferences worldwide. He is currently Course Leader, MA Design: Fashion & Textiles at Bath Spa University; Visiting Professor, Linz University of Arts/Textile Centre Haslach, Austria; Trustee and Acquisitions Panel Member, Crafts Study Centre; Trustee, Stroudwater Textile Trust; and Member of the Gloucestershire Guild of Craftsmen.

Contact:

Bath Spa University, Sion Hill, Lansdown, Bath, BA1 5SF, UK.

E-mail: [t.parry-williams@bathspa.ac.uk](mailto:t.parry-williams@bathspa.ac.uk)

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<sup>1</sup> UNESCO ‘convention for the safeguarding of Intangible Cultural Heritage’ (2003) defines Intangible Cultural Heritage (ICH) ‘as practices, representations, expressions, knowledge, skills – as well as the instruments, objects, artifacts and cultural spaces associated therewith – that communities, groups, and, in some cases, individuals recognize as part of their cultural heritage’ (Article 2.1).

<sup>2</sup> The Law for the Protection of Cultural Properties promulgated in 1950 and revised in 1954, was informed by the philosophical ideas of Fujiyo Koyama (1900–75), a scholar of East Asian ceramics and government official.

<sup>3</sup> See: Kaneko in: Rousmaniere (Ed.), 2007: 11.

<sup>4</sup> Anthropological studies of vernacular textile traditions have revealed multiple examples of embedded inherited knowledge systems and some ‘ethnographic vignettes’ provide account of the daily learning and exercising of traditional skills: ‘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’ (Wilcox et al. 2007:18). This account refers to routine participation in fibre processing and thread making in Okinawan *Bashofu* or banana-fibre textile production.

<sup>5</sup> At the transition of Heian to Kamakura periods (c.1180s) see: Juniper, 1967: 11–12.

<sup>6</sup> Literally translated as: 侘 Wabi – a taste for loneliness (solitude) and humbleness with nature as a companion; 寂 Sabi – quiet (elegant/seasoned/refined) simplicity (Shogakukan, 1995). In English phraseology, Wabi-sabi might roughly translate as ‘rustic, simple, artless, and unsophisticated’. It is related to a heightened aesthetic consciousness and spiritual richness and essentially suggests such qualities as imperfection, impermanence, asymmetry, incompleteness and the unconventional, also humility, modesty and humbleness. See: Juniper 1967: 2; Koren 2008: 15-16, 76, 22 and further references below.

<sup>7</sup> Namely Shinto and (Zen) Buddhism.

<sup>8</sup> See: Juniper 1967: 2, 48-49, 106-120; Koren 2008: 15-16, 22, 76.

<sup>9</sup> Of particular note is Yoshida Kenko’s *Tsurezuregusa* (or ‘Essays in Idleness’), written in the early c.1300s, where Kenko repeatedly alludes to a series of aesthetic values best defined as suggestion; irregularity; simplicity and perishability. See: Keene 1997: vii-xxii.

<sup>10</sup> A key aesthetic exemplified through kimono, is understatement, best represented in the ‘dark and sophisticated’ sensibility of *iki*. See: Dalby 2001: 12, 57, 60-61, 104, 185, 193, 246.

<sup>11</sup> Heian period c.794–1185.

<sup>12</sup> Yoki – Nice, good, positive.

<sup>13</sup> Notable exemplars (among many) include the textile company Nuno and its co-founders, Junichi Arai and Reiko Sudo, who have respectively championed the extraordinary capacity of yarn materials and textile treatments or ‘finishes’, and textile designer Makiko Minagawa, a significant pioneer of Avant-garde and commercial interpretation of ancient textile traditions.

<sup>14</sup> For example, Reiko Sudo’s car manufacture ‘spatter’ technology used for polishing car hardware, to make a silky stainless-steel finish; or Junichi Arai’s pachinko parlour engineered plying and twisting of stainless steel threads to make them elastic enough for power-loom weaving.

<sup>15</sup> Know-how is knowledge of a ‘how to’ kind which you have and can call upon whenever the need arises. You not only know that you know, but feel that you know. Personal know-how is a characteristic of experts that novices do not have. It comes with experience (Dormer (ed.) 1997: 139).

<sup>16</sup> Tacit-knowledge is that which is acquired by and unique to an individual’s practical experience and understanding, and enables autonomy and rationality in respect of a given activity or set of activities. See Dormer (ed.) 1997: 147–9.

<sup>17</sup> Sociologists use this as a defining marker of industry, while Marxism argues it encourages alienation from the true act of making. These are among prevailing negative associations of divided labour with an emphasis on loss of moral values and meaning in social life (Edgar & Sedgwick 1999: 119–20).

<sup>18</sup> The division of labour also brings social and moral benefit to the participants through increased engagement and participation in shared cultural endeavour.

<sup>19</sup> Knowledge itself can be said to operate under hierarchies or relations of power. Epistemologists argue Nietzsche’s view that what we deem ‘knowledge’ is in fact the expression of an assemblage of drives and interests’ (Edgar & Sedgwick 1999: 129). This is particularly interesting in respect of inherited or

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organized knowledge exchange, where there is inevitably some form of higher rationale. There is also a value in the significant mastering of a particular craft and obtaining respect and position in the associated knowledge and value system framework (Adamson (ed.), 2010), as this ensures power and influence in the community and the opportunity to exercise extension, through and beyond established paradigms.

<sup>20</sup> Also in the case of the ramie system.

<sup>21</sup> c.1603-1868 when Japan was ruled by the Tokugawa Shogunate established in the old capital of Edo, now modern Tokyo.

<sup>22</sup> *Washi* ('Japanese-paper') is made from kozo (*Broussonetia papyrifera*), or (paper) mulberry shrub.

<sup>23</sup> Namely Oji Fibre Company, Japan.