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TABLE OF CONTENTS

Dard Hunter and the Bark-Paper of the Pacific

Insights into technical, technological, and cultural affinities

Roderick H. Ewins

October 2000

INTRODUCTION

At the tenth Friends of Dard Hunter meeting at Grant's Pass in Oregon in October 1991, I gave a slide-talk called "Barkcloth and the Origins of Paper."[1] I had been engaged in fieldwork to research barkcloth making in Fiji for over a decade at that time, and had also since 1986 been intensively involved in obtaining funding for, and facilitating the setting-up of, what was to be called the Jabberwock Papermill at the University of Tasmania (Turner and Skiöld 1983, 150-153). These two interests both sprang from the soil of my origins in Fiji and lifelong interest in Fijian art. When as a printmaking student in England I had the chance to visit Barcham Green's Hayle Mill near my then-home in Kent, the sheets of textured deckled paper I saw loft-drying there reminded me of the barkcloth I had been familiar with as a child in Fiji.[2]

These impressions were strengthened when my formal research into Fijian barkcloth started nearly two decades later. I arranged testing of some barkcloth samples in the local Boyer Newsprint Mill, which confirmed that the similarities were far more fundamental than mere appearance. When in 1978 I bought a reprint copy of Dard Hunter's book on papermaking, I was intrigued to read that he had noted these similarities long before I did, and had voyaged to the Pacific to see barkcloth-making for himself (Hunter [1943] 1978, 33-47).

I was therefore delighted when at the Oregon conference I found that there were some large pieces of old Samoan siapo *barkcloth on display, and Doug Stone told me that these were a tiny part of the significant collection of Pacific barkcloth that Dard Hunter had assembled. I was keen to see it, but it was inaccessible at the time, being in the process of transfer to the newly-established Robert C. Williams American Museum of Papermaking (RCWAMP) in Atlanta.[3] So I was delighted when in 1999 Cindy Bowden contacted me and arranged for me to go to Atlanta and survey and catalog the collection. Out of that successful collaboration came the Anita Lynn Forgach Award that allowed me to deliver the keynote address at the Friends of Dard Hunter annual meeting in Atlanta on October 20, 2000. At the time I felt that it would be in keeping with Dard Hunter's pioneering research for me to provide some of the technological detail that was missing from my earlier talk, but which had resulted from my researches into both barkcloth and paper. The Atlanta talk accompanied a slideshow presentation, and here I have modified and expanded the brief notes I made for it.*

Barkcloth is a fine, paper-like fabric made by beating out the inner bark, or bast, of various plants, most of them members of the *Moraceae*, or fig family. These all have fleshy inner bark, or bast, and relatively easily-removed outer bark. One member of this family, the paper mulberry or *Broussonetia papyrifera*, was taken by the first settlers from Southeast Asia into the Pacific specifically so that they could continue making barkcloth. Particularly in Polynesia, great quantities of what Westerners generically call *tapa* were made and used in all aspects of life from the most humble and utilitarian to the most profoundly symbolic, and in Fiji and Tonga in particular, its spiritual significance and social and ritual roles continue strongly.[4] Not only is paper mulberry bark still used extensively to make paper in Japan and other parts of Asia, but it is easy to see the similarities between the traditional hand-beating of the bark (including *kozo* or *Broussonetia kazinoki*, first cousin of the Pacific material) that they did to make paper pulp, and that done to make barkcloth in the Pacific.[5] Also, of course, the products look and feel quite similar, as can be judged by the sample provided in this book (page 51). As Dard Hunter wrote in *My Life With Paper*, his enthusiasm for what he called "the primitive bark papers of the South Sea Islands," became "almost an obsession." He wanted to produce "a book about these little-known bark papers . . . with actual specimens of the *tapas* from the various islands where the making of this material had been practiced from time immemorial" (Hunter 1958, 73).

To this end, in 1926 he set off on a journey that was part treasure hunt, part tropical adventure, which took him from San Francisco to Tahiti and the Cook Islands, then via New Zealand to Fiji, Tonga, and Samoa. He obtained samples of barkcloth in all but the Cook Islands, and thirty-one pieces of cloth and several tools survive in the R.C. Williams American Museum of Papermaking collection. His descriptions of the actual making of barkcloth, along with samples he collected, are to be found in his magnum opus, *Primitive Papermaking: An account of a voyage to the Pacific Islands in search of information, implements and specimens relating to the making and decorating of bark-paper* (1927). As mentioned above, he also gave a brief account in his book *Papermaking* (1943) (fig. 1).

Fig. 1. Dard Hunter admiring a piece of Fijian *masi* barkcloth from his collection.[6] The characteristic bold geometric figuration on this sample is from Thakaundrove Province in Northeast Fiji (probably the island of Taveuni). The piece he is holding may be RCWAMP item #89.2139. 78 x 65 inches (1.98 x1.65m).[7] Photo courtesy of Dard Hunter III.

As I observed in my report to the American Paper Museum in 1999, "[Dard Hunter's] comments are by and large remarkably well-informed and reveal him as an intelligent and careful observer and listener, and also one who would and did follow up his collecting with research and scholarship. Given the state of Pacific anthropological literature in his time, his accomplishments in this regard are significant and valuable. His *Primitive Papermaking* remains a very useful [research] document." Another scholar, Professor Ling of Taipei University, would write forty years after Dard Hunter's trip, regarding the similarities between barkcloth and paper, "In fact every ethnologist who has made enough study of barkcloth and its raw material as well as its making procedures, coupled with enough knowledge of the paper-making art, can come upon this same theory" (Ling and Ling 1963, 42). But we should not forget that Dard Hunter *was* working forty years earlier, and had *no* training as an ethnologist; these facts, together with the unavoidably touristic nature of his contact with the cultures he looked at, make his achievements and insights all the more noteworthy. As well as his scientific interest as a practicing papermaker and paper historian, he was dedicated to the principles of the Arts and Crafts movement generated by William Morris, which held a hand-crafted object to be intrinsically more valuable than anything made by a machine. This gave him a special appreciation for the village craftspeople whose work he observed and for their products.

Like his other productions, as a physical object *Primitive Papermaking* is itself a masterwork, exemplifying those fine-craft principles Dard so admired. The contents are divided into four parts. The first explains the differences between paper that is formed in a hand-mould and those forms hand-beaten into sheets from tree bark. It then surveys the barkcloth of Mexico, Java, Borneo, the Celebes, Hawaii, Tahiti, the Horne Islands, New Zealand, and the Solomon Islands. Finally it describes the beating and decorating of bark paper in Tonga, Fiji, and Samoa. It is the first and last topics that I explore further here, commenting on the technological and chemical relationships between barkcloth and paper.

Just as Dard Hunter did, any hand-papermakers who see the process of barkcloth-making today will inevitably find it seems surprisingly familiar, even though there isn't a mould or a deckle in sight. After all, the old papermakers' adage is that the paper is "made" in the beater, where cellulose and water undergo their crucial metamorphosis as a result of the beating. That is also precisely what occurs in making barkcloth, and it is that fact that links it far more fundamentally than by mere look and feel.

In the Southwest Pacific, in the area also known as Western Polynesia (Fiji, Tonga, and Samoa), the villages in which barkcloth is made are normally very small, seldom with more than two or three hundred people. Unlike the many African countries where barkcloth is made by men, here the women do all of the actual making and figuring of the cloth, though sometimes (not always) the men undertake the cultiva-

tion of the plants, and sometimes also the harvesting.

Here the paper mulberry is the plant used virtually exclusively. It is cultivated in small or large plantations, often next to the vegetable gardens, but always in sheltered places. Where natural shelter is not available it is contrived with man-made fences, bushes planted as windbreaks, and so on. As the plants grow, all small branches are bent double so that they wither and fall off, and the stem grows tall and straight, with smooth bark.

When the saplings are cut, the bark is usually removed within hours, while it still peels off the wood easily. This is achieved by slitting the bark near the base of the cut sapling, then ripping it off the wood smoothly from base to tip. Next, it is rolled inside out, first one way and then the other, to flatten out the natural curve it has from being around the stem. The tip is cut off straight, and the outer bark is separated from the inner bark near the base. It is then held down while the inner bark is peeled off it cleanly. This is actually a far more efficient process than the scraping-off of the outer bark as is done by Japanese papermakers, and immensely more efficient than the cutting-off of the outer bark that has to be done by African men processing their thick fig-tree barks.

If it is not possible to process the cut saplings immediately, they may be stored under coconut leaves or corrugated iron to prevent them from drying out. However, after three or four days the outer bark will become soft and difficult to peel off cleanly. Also, the bast may start to break down, which in this part of the Pacific the women consider undesirable since their process involves beating the bast to spread the fibers, while keeping the physical structure of the bark intact. I will return to this point shortly.

First, however, the separated bast must be cleaned of any remaining outer bark, which would stain the final product. The strips of bast are rolled inside-out into coils and soaked in water (either seawater or fresh water), for anything from ten minutes to overnight. This helps soften it, but also helps remove the thick white sap of the paper mulberry, which browns as it dries.

Next, in Fiji each strip of bast is laid along a short length of solid bamboo and scraped away from the worker with a shell to remove any small pieces of outer bark that remain. Here a cone shell is used, with the edge slightly blunted so as to not cut the bark. In Samoa, by contrast, an arcshell is used against a flat wooden board, its serrated edge and convex ridges not only cleaning but also doing the initial breaking down and spreading of the bast. All of the barks needed for the task in hand, anything from two to eight, are prepared in this way, and then placed in fresh water to keep them wet, and to remove the salt-water if that was used initially.

If this has all been done properly, the bast is extremely clean, and there are few if any of the small black pieces of outer bark that are such a curse to Japanese papermakers. I have watched Japanese women in the middle of winter "nit-picking" these pieces out of freezing wet pulp with their bare hands, and

I would recommend the "scraper-shell" method to them. Having said that, it should be noted that today, in the making of "tourist *tapa*" particularly, this scraping is often omitted or done very cursorily, as they are less worried about imperfections in tourist cloth. Unfortunately this sort of lack of care can and often does spread into their normal practice.

The basts are now ready for processing, and are processed one by one. The beating tools—mallets and anvil—are both made by the men from very hard woods. The anvil is made from a single log, with the platform, which sits on two stubby legs, being carefully shaped and reduced in thickness, since in use it must have a "spring" so that the mallet recoils easily in the hand and doesn't jar the arm. As old anvils lose this spring, they are said to be "dead" and are discarded. In Tonga, where they use an upwardly curving log with no legs as an anvil, they also reduce its thickness in the centre by flattening the top "working" surface, and in use rest its ends on springy material to achieve the required bounce.

Girls learn to beat cloth from a very young age: the girl in the photograph of three beaters was only thirteen and was already expert at all stages of the process. When women are working communally, the beating often takes place in the open as in this photograph, or in purpose-built sheds. They often develop rhythms in their beating, something that, like others before and since, Dard Hunter was much taken with (fig. 2).

The first beating uses the largest beater and/or the side of the mallet with the biggest lines and deepest grooves. These help to spread the fibers. Beating is heavy and rapid, always with the grain, never across it, which would tend to break the fibers. In some places the women insist that only the outside should be beaten, in other places they insist only the inside should be beaten, while some prudently say it doesn't matter. It is a bit like whether you cut open the big end or the little end of a boiled egg!

This process is repeated two or three times. The whole bark is widened by a factor of four to five, but it remains

Fig. 2. (a) Lavenia Lave scraping bark with a cone shell to remove outer bark remnants. Photo: Rod Ewins, 1980.

Fig. 2. (b) Three women beating bark into cloth, Ekubu village, Vatulele Island, Fiji. L–R: Salote Rokete (age 13), Lavenia Lave (33), Aliji Tuvu (32). Salote was just starting to beat a fresh piece of bark, Lave was finishing the first stage, while Aliji had finished a single bark and picked up another completed one to felt to it. Lavenia Lave made the tip-in sample of *masi* in this book, at the the author's request and specifically for the Friends of Dard Hunter. Photo: Rod Ewins, 1980.

tapered from base to tip. The piece is now gauze-like, and for some delicate uses (such as bridal sashes) it can be used in that form. For more robust service, and if it is to be printed on, it can be either felted with or glued onto other similar sheets to make a thicker, more patent sheet. In Fiji the process involves felting, and it is this process that is described in what follows.

When all of the barks destined for a piece of cloth are completed to this stage, the loose packs are picked up (in twos or threes, if more than two barks are being used), folded again, and soaked in fresh-water. There follows a process in which multiple barks (anything from two to half a dozen) are laid on top of one another and felted together by beating on the anvil. It is contrived to top-to-tail the barks so as to have equal numbers of the thinner leaf-ends laid onto the thicker stump-ends, to even out the amount of material along the final felted unit. During the process edges are carefully aligned and the laminated unit is smoothed down with wet hands. It is beaten firmly and quickly to felt it along its full length. Water is sprinkled on as felting proceeds, and further mending of holes takes place if needed, including if necessary the addition of patches for big holes. These should be used like meat in a sandwich, inserted between the two layers. Typically, the felted unit will be 50% wider than the barks were at the start of felting.

Finally, the felted unit is redoubled repeatedly and beaten hard for the final widening and thinning of the cloth. Water may be sprinkled on at this stage, to keep the unit flexible, and though this will cause some tendency to felt, it is now tough enough to be unpacked at the end of this process without danger of damage. This final beating widens it by a further 50%, and from the start to the end of processing, the width of the original bast strips will have been increased by a factor of between fifteen to twenty in the final cloth, while their length has been diminished by 10% or more. These units of cloth average about 600 mm wide and 1.8 m long. When this is finished, the pack is carefully separated, and folded loosely before end-joining, which is generally done at this stage by overlapping one end each of two units of cloth, sprinkling water on the join, and beating hard to felt them together. Weighted with stones, the finished cloth is spread in the sun to dry, reminiscent of Japanese paper spread out on drying boards—in each case, a form of restraint drying that results in very flat sheets. The inner-surface of the bast is still uppermost (that is, the side that was closest to the woody stalk in life, and has been uppermost throughout the processing). This is the "good" side and will be the side printed on. Once dry, wider pieces are made by gluing together, generally using boiled or baked wild arrowroot or cassava, rubbed on like a glue-stick (fig. 3).

As can be seen from the above description, an enormous amount of care has to be taken in this process to carefully maintain the fiber structure of the bark during beating and felting. A good craftswoman can produce a remarkably smooth and even sheet that is a light creamy-white in color. However, as testing reveals, the inherent bark structure means that while the resulting sheets have exceptional crosswise tear-strength, they are relatively weak in terms of lengthwise tearing, and burst strength is similarly not great. Finally, if sheets get wet after completion, the layers, whether felted or glued, tend to delaminate fairly readily.

In Eastern Polynesia they discovered that if the already-separated bast was itself further stored under cover so that

Fig. 3. (a) Drying barkcloth on an old concrete slab, Taunovo village, Vatulele Island, Fiji, 1985. All of these pieces have two or more modules end-joined together, except one in the top right which is a "half-length" made by felting two halves of one bark together. Photo: Rod Ewins, 1980.

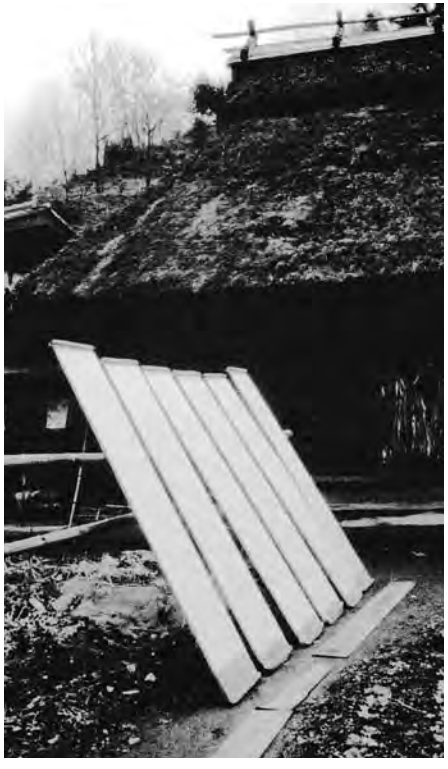
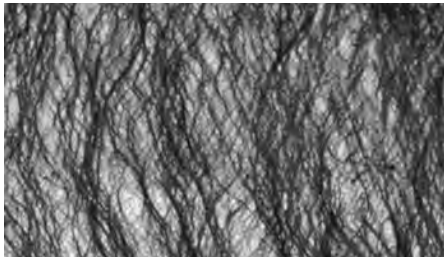


Fig. 3. (b) Drying *washi* on special drying boards in the cabbage garden, Kurodani village, Honshu, Japan, 1983. Photo: Rod Ewins.

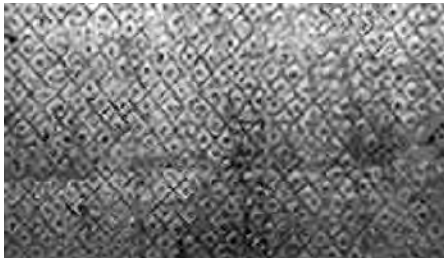
fermentation occurred, the broken-down fibers could in fact be totally pulped and rearranged in a random pattern with the beater, not merely spread out in their original form. This produced a far more even-textured cloth, to which a pleasing pattern similar to laid paper could be produced by beating the pulp into boards with very fine parallel grooves. This was carried to its extreme in Hawai'i, where the bark was considerably retted, then beaten into pulp with a heavy club called a *hohoa*. This pulp was then beaten out using finer beaters, and finally it was either "lined" on a grooved board as in Tahiti and the Marquesas, or "watermarked" using beaters with carved patterns on their faces (fig. 4). The resulting bark-cloth was generally thinner and more consistent overall than the felted or glued papers of the Southwest Pacific, but it had superior burst strength, its tear strength was good and consistent in all directions, and while, like any paper, wetting would weaken it, there were no layers as such to delaminate. It looked and behaved, in short, like good-quality handmade paper.

It will be clear to papermakers that the retting of the raw material was a



(a).

Fig. 4. Microphotographs showing the structure of (a) An unfelted single-bark Fijian *masi* wedding-sash (see Fig. 5), showing the careful spreading of bark fibers during beating (author's collection); (b) A piece of white, "watermarked" Hawaiian kapa. The final "watermarked" texture was applied by careful beating with an *i'e kuku ho'oki* ("finishing beater") bearing the *'upena halua pupu* design, a grid of diamond shapes with dots in their centers. As can be seen, there is no evidence of the original bark's fiber structure (Dard Hunter collection, RCWAMP #89.2028).



(b).

crucial discovery. That plant structure could be broken down in this way to free the cellulose without damaging it was critically important to the making of paper. It will be recalled that in European and American papermills preliminary retting of cotton rags prior to placing them in the beaters was commonplace, and in Asia this was probably also the norm until they started boiling the raw materials in caustic solution. This was an advance since in the cold winter months when most paper was made, bacterial degeneration would be very slow. In time chemical breaking-down of cellulose-containing material was also adopted by Western papermakers in place of retting. Of course this was essential to the commercial papermakers' ability to infinitely expand their raw-material source by learning to use wood in place of cotton and linen rags and the like. In the Pacific, however, though they were aware of the caustic properties of potash, they never used it to substitute for bacterial action, perhaps simply because in the tropics retting occurs very rapidly anyway.

Initially, in Asia, just as described above for Eastern Polynesia, the resultant mass was pulped by hand beating, something that is very clear in old Chinese and Japanese woodcut illustrations of the craft. In a papermaking village I visited in Japan in 1983, such hand beating of their pulp as occurred was done on non-resilient surfaces, though those early illustrations show benches in use, which may possibly have had some resilience similar to Pacific barkcloth anvils. I tried the "modern" Japanese method, and found that it jarred my arm and shoulder severely—a great recipe for industrial injury, and in no way comparable to the relatively comfortable "bounce" of mallet on anvil that I have experienced in Fijian workshops.

As described above, in the Eastern Pacific they merely used their beaters to spread the resulting fiber mass out into even sheets, while in Asia, perhaps as a conflation of barkcloth and silk-felting technology, they hit on the idea of suspending the cellulose pulp in water and straining it through porous sieves held in frames. This was a speedier and more controllable way of achieving an even sheet, and paved the way for all of papermaking's progress since. As I pointed out in my previous paper, it is this single step that separates barkcloth-making from "true" papermaking. Chemically, they are virtually identical.

Though it took centuries for paper chemists to understand the phenomenon, all papermaking capitalizes on what we now refer to as "hydrogen bonding." What has not been adequately understood by ethnologists hitherto is that precisely the same chemistry has always been depended on by barkcloth makers, though of course they would not have known it as a chemical phenomenon. It is worth recalling just what happens when this occurs.

As every papermaker well understands, the particular plant fibers involved in the process are cellulose, the building material of plants. It is a truly extraordinary material, but before going further, for those with little or no

scientific background, it is necessary to understand just a little very basic chemistry. Atoms have what can be thought of as little grappling-hooks that allow them to latch on to other atoms. The number of these that each element has determines what is called its valence. Hydrogen has only one of these, so is monovalent, oxygen has two so is bivalent, carbon has four, and so on. Thus methane or CH_4 uses up all four of its carbon "hooks" to grab each single hook of four hydrogens. The strength or weakness of these bonds is what makes compounds stable or volatile.

Cellulose fibers are made up of many long carbon chains; in fact, cellulose is a type of glucose, or polysaccharide chain. These chains have, attached to their carbon atoms, many hydroxyl ions: that is, oxygen and hydrogen linked together. Most people will be aware that oxygen and hydrogen are also linked together to make water, or H_2O—the two "hooks" of oxygen being occupied by two hydrogens.

Water, in fact, is the other part of the story. It is itself an extraordinary, anomalous substance. Though theoretically H_2O should be a gas, oxygen tends to be rather promiscuous when it comes to hydrogen atoms. While it forms, as would be expected, molecular bonds with two hydrogens, it has such an affinity for hydrogen that it likes to extend this and "have a bit on the side" with any nearby hydrogens as well as its own, "partner-swapping" to the extent that it is difficult to be sure which hydrogen really belongs to which oxygen. This means that neighboring H_2O molecules actually stick to one another, causing it to be a liquid.

When cellulose is beaten, either manually as in traditional Japanese papermaking and Pacific barkcloth making, or with stampers, Hollander beaters, and so on, two things happen. First, the surface of the fibers is damaged, causing many cellulose strands to fray out, and greatly increase the number of hydroxyls exposed. This is called fibrillation. Second, the oxygen in the water in which this takes place plays its usual games, and attaches itself happily to the hydrogens belonging to the exposed hydroxyls in the cellulose. This is called hydration. The result is a thoroughly soggy fibrous mass of pulp. When the water is squeezed out of this pulp, and even more when it dries, these water-to-cellulose bonds are broken, but the oxygens on the surface of the cellulose latch on to the newly-liberated hydrogens of neighboring cellulose fibers. This is what is called hydrogen bonding. As well, the microfibrils physically tangle with one another. The result is a very strong, patent, sheet of paper—or barkcloth. But if it gets wet, the process is reversed, the oxygen in water woos the hydrogens away again, and the cellulose fibers tend to float apart.

Most explanations of barkcloth manufacture either totally ignore the chemistry that is occurring, or in some cases refer rather vaguely to some imagined "mucilaginous substance naturally present in the plant" as the agent that causes the sheet to hold together. The only substance they could be referring to is sap, and it is true that fig and mulberry sap is extremely viscous and sticky. But the bark undergoes not only preliminary soaking precisely to

rid itself of the sap, but is then rinsed again and again during the course of beating. The presence of any residual sap is regarded as a pest, since it turns the cloth brown when it dries. It was my study of papermaking that made me come to realize that in the case of barkcloth, precisely the same thing was happening. So, it is quite true that in barkcloth there is a "natural" substance that is "mucilaginous" that substance is cellulose, vigorously beaten in the presence of water, producing fibrillation and generating hydrogen bonding. It explains not only why barkcloth is so remarkably strong and dense, but also why the simple process of wetting the ends of two pieces of cloth, putting them one on top of the other, and beating them hard with a mallet, is sufficient to bond them together strongly enough to withstand handling, wearing, and aging.

Fijian barkcloth is today thought of by most Westerners as a tourist souvenir, but it continues to have many indigenous functions that actually consume by far the greatest proportion of manufacture (my research has suggested that at most 20% is sold to tourists). An important original use was as male clothing; women made it but themselves wore only a short fringed hip-girdle. Today, a tailored kilt is a male Fijian's formal attire, except for traditional ceremonies where both men and women wear a standardized form of dress

It retains functional uses as house decoration friezes, bedcovers, and Western-introduced uses like christening rugs and birthday gifts. Most of its uses are ceremonial, and at all rites of passage it is both a ritual gift that the women of the clan carry present with great ceremony, and as the ultimate traditional attire. At funerals, bodies have always been wrapped in barkcloth, and mats and copious amounts of cloth are presented back and forth by the mourners. At weddings *masi* is both a profoundly important gift and is also worn by both bride and groom (figs. 5-6). It is very interesting that in Japan the most traditional of bridal attire is made of a special paper, rough and crumpled and looking very much like barkcloth, of which it is perhaps a traditional reminder.

So while, like the rest of the world, Pacific peoples have adopted woven textiles for their everyday clothing, and write on paper, their "bark-paper," as Dard Hunter always called it, continues to have a profoundly important role in their social lives and in their sense of a distinct and proud identity.

Fig. 5. Neimani Korovou (aged 21) dressed in a *masi* bridal outfit, Namuka Island, Fiji, 1985. The four distinct garments are typical today: the wedding sash (*i-sala ni vakamau*), which is only one bark thick (see previous photo), the knotted waistband called *ioro*; the decorative "overskirt" with cut tassels (*ndelanisulu*) and the skirt figured with the local motifs and patterns (*i-sulu*). Incidentally, Neimani's beautiful long "raster"-like braids, worn on one side only, are called *tombe*, translated as "virgin plaits," which would be cut off by her groom on their wedding night. They are found in very few parts of Fiji today; in fact since the 1970s Namuka is the only place I have seen them.

Fig. 6. Clanswomen of the deceased heaping up their presentation of *masi* at a lifting of mourning ceremony, Ekubu village, Vatulele Island, Fiji, 1985 (for discussion of such ceremonies, and the implications of such presentation ceremonies, see Ewins 2004 and Ewins 2006).

NOTES

1. *The text of this talk is online at http://www.justpacific.com/art/articles/paper/.*

2. *Though I had no idea at the time, it was the Hayle Mill that had made the paper used in several of Dard Hunter's early books, including his great work on Asian and Pacific papers,* Primitive Papermaking*, discussed in this article. It is wonderful how things criss-cross through the course of one's life!*

3. *For details of the Dard Hunter collection and its successive homes, see Baker 1994, 7-10.*

4. *For a detailed description and analysis of these roles, see Ewins 2005.*

5. *On my first visit to Japan meeting papermakers (in 1983), they took delight in pointing out to me the irony in the fact that Western botanists dubbed kozo* "Broussonetia kazinoki"*, since in Japan kajinoki is the name of* Broussonetia papyrifera.

6. *Hunter assigned a date of 1890 to this piece. While this is possible, he does not say how he came by that date. He wrote, "while staying in a remote settlement along the Rewa River . . . [a] chief brought out several pieces of masi . . . [from which] I selected an elaborate* masi kesa *['figured bark-cloth'] that had originally been used as a bed-covering" (Hunter 1958, 86). It is possible that this is the piece, for though he visited Taveuni and identified other pieces as having been obtained there, he did not seem to recognize this as a Taveuni piece. It is an appropriate size and type for a bedcover, and Rewa did not make any* masi *by then, so would have been using that from other districts.*

7. *Recognizing that most readers of this article will not be familiar with the unique spelling conventions of the Fijian language, I have Westernized the spelling of some Fijian words and place-names in this article to make them easier to pronounce correctly. As they are written here, they should be pronounced roughly as they would be if they were Italian or American Spanish.*

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Roderick H. Ewins, Ph.D.

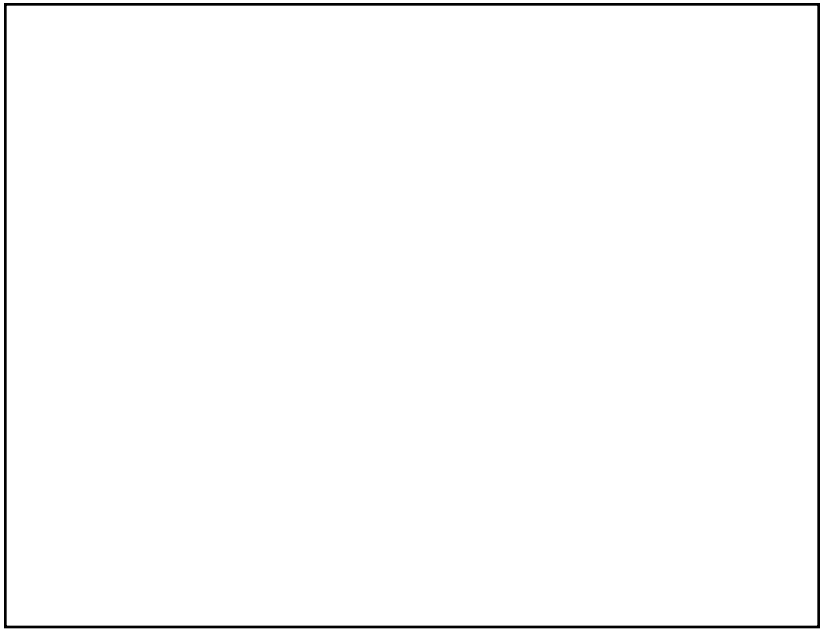
Rod Ewins *was born in Fiji, in the fourth generation of a family of settlers who arrived in Fiji in 1875, the year after it became a British colony. His areas of formal study and qualifications in a lifelong process of education in Fiji, Australia, and England have spanned art, music, science, education, sociology, and anthropology. His professional career has been as a practicing artist (initially painter and sculptor, latterly printmaker, papermaker, and art theoretician), university lecturer, and administrator. In the spring semester of 1980 he was Visiting Professor in Fine Art at the University of Hawaii at Manoa. Back home, he became Reader in Fine Art and was on different occasions and over a period of years Dean of Visual and Performing Arts, and retired from the University as Head of the Tasmanian School of Art, Australia's oldest art school. He continues his association with the University as a Research Associate.*

Rod's long career of art practice and exhibition was recognized with invitations to take part in a number of international exhibitions, and he won prizes in Australia and Spain. His work is represented in several of Australia's state galleries, as well as in public, institutional, and private collections in Australia, Britain, U.S.A., Canada, Japan, Spain, Brazil, Poland, and the Ukraine. The Tasmanian Museum and Art Gallery mounted a major retrospective of his work in 1990, and in 1997 the Australian National Gallery acquired his "lifetime work" archive, making him one of only a handful of Australian artists so collected.

In 1977-1978 he undertook the process of acquiring funding for and organizing the establishment of Australia's first college-based production hand papermill, which was named Jabberwock after the Alice in Wonderland *song. It was set up and run for some years by Tim Payne (who trained with Howie and Kathryn Clark and Bob Serpa), then by Tim's student Penny Carey-Wells. Regrettably, following Rod's retirement in 1996, it was closed after eighteen years of operation. It had exerted a significant influence on Australian hand papermaking, including hosting Australia's first (and only) International Papermaking Conference in 1987.*

In 1979, concurrent with ongoing art practice and teaching, Rod began researching Fijian art and material culture, undertaking many field trips "home" to Fiji in the years since then. He has published three books, a video, and a number of papers and book chapters on Fijian art. The cross-disciplinary fusion that has marked his career resulted in his undertaking doctoral studies in sociology and anthropology while he was still Dean of Visual and Performing Arts, operating simultaneously as senior administrator and

graduate student! He was awarded the degree of Doctor of Philosophy for his thesis on the social role of Fijian bark cloth in the negotiation of identity. Today he is not practicing as an artist or papermaker, but as a full-time anthropology researcher and writer.



FIJIAN BARKCLOTH (MASI) made by hand beating the inner bark of saplings of paper mulberry (*Broussonetia papyrifera*) by Lavenia Lave, wife of the paramount chief of the island of Vatulele, Southwest Fiji. Sample made specifically for the Friends of Dard Hunter.