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Relational Maps in the Cook Islands Transnational Communities

Small island communities such as those in the Pacific have always been prone to explore life and establish trading posts someplace else. Famous illustrations of large scale pre-historic migration movements across wider Oceania are Lapita pottery and the Maori Whare Wanuga traditions whose large-scale distribution in space and time has led scholars to hypothesize the existence of “voyaging corridors” sustaining vast networks of trade and exchange (Pearce and Pearce 2011). Conducting fieldwork today in the Pacific islands, the unpredictable presence of key informants who are regularly on tour to relatives living in the metropolises of the Pacific Rim, Asia, America or even Europe, confronts one directly with the dominance in peoples’ lives of new kinds of voyaging corridors made possible by air travel. What emerges from ethnographic research conducted among the thriving transnational communities of Eastern Polynesia as described in this chapter is the importance of maps charting biographical relations that enable people to establish and maintain relations of affinity at a distance.

The Cook Islands, an archipelago of fifteen tiny islands, eight of them inhabited, are a prime example of the heightened state of mobility among a population that has always accepted inter-island migration as a way of life. The total land area of the country is only 240 square kilometers, while its exclusive economic zone covers a maritime region of nearly 2 million square kilometers in Eastern Polynesia, stretching between Tonga and Samoa, on the one hand, and French Polynesia on the other. Since 1901 the group has been included within the boundaries of New Zealand, and its people, who are culturally close relatives of the Maoris of New Zealand, are citizens of that country. With the building of an airport in 1992 there has been a net outflow of Cook Islanders. In 2006, the number leaving for overseas was 969; the highest annual exodus was that of 2000, when 1,429 people left the islands, prompted by the economic reform program of 1995–1996, when large numbers of Cook Islanders took permanent residency in New Zealand, Australia, and the US. Today, more than 50,000 Cook Islanders reside in New Zealand and an estimated 15,000 in Australia.

Cook Island migrants have strong and lasting socio-economic ties to the homelands, and most want to return there after retirement to die and be buried on the islands. The nurturing of socio-spatial ties through a two-way flow of remit-

tances and goods has been well studied for the Pacific (Evans 2001; Siikala 2001; Bennardo 2002; Addo 2013). What emerges from these studies is the importance of the knowledge of biographical relations as pathways for the movement of ideas and goods between communities. Even more importantly, relations of affinity are not constituted just by birth or marriage but are also ‘elective,’ resulting from friendships or collegial relations, with elective paths being remembered across generations and continuing to be of importance even if persons are not living in proximity with one another. This chapter will discuss the question of how such knowledge of biographical relationships is codified and transmitted when the effects of persons’ lives are distributed, to be drawn upon and activated at different times for different reasons, thus resisting a simple model of commemoration that presupposes a shared ‘canon’ of memory derived from inter-subjectively recognized and anticipated actions.

The data from the Cook Islands exemplified here bring to the fore the use of combinatorial and fractal imagery in artifacts that serve as gifts essential to mark all life cycle stages and bind people to one another across generations in ways that are mirrored in the assemblage of motivic parts so that a single element allows for the spontaneous reconstitution and recognition of wholes. The empathy with images that is embedded in the intuitive grasp of a logic of image composition paves the way, it is argued, for distributed biographical relations to be activated in flexible ways, combined and recombined in a manner that is both open-ended and mutable, and yet stable. This modular logic of image composition harbors and sustains a de-centered and third-person conception of personhood whose distributed effects are gathered in a fashion that is reminiscent of Deleuze and Guattari’s (1978) concept of the *rhizome*, that is, via a map that must be constructed, a map that is always detachable, connectable, reversible, modifiable, and has multiple entrances and exits.

Rather than assuming that persons know their place in the world and command distributed social relationships common to transnational communities by personal conjecture or trial and error, this essay will thus advance the hypothesis that persons intuit such knowledge through images whose logic commands modular ways of being and thinking and supports what Casey (1998, 301–8), leaning on Deleuze and Guattari’s distinction, has called “striated” space. Striated space refers to the conception of a landscape composed of distinct points or sites that are stable landmarks when navigating from one point or location to another. “Smooth” space, on the other hand, has indefinite extensions and people reside and move within it rather than toward fixed points. With striated space, containment, permanence, and renewal of spatial relations over time are paramount. The making and activation of the spatial loci of kinship that sustain the transnational communities of the Cook Islands is supported, I will argue, by modular,

stitched patchwork maps that allow people to navigate co-variant relations of kinship by utilizing exclusively temporal images as landmarks. The distributed effects of persons that constitute the political economy of the household, from children to *taunga* (culturally sanctioned knowledge and its material articulation) to bank accounts, are marked to be gathered and rooted back in the homeland with the death of a member of a household. Lowered into the grave that sits right next to the house whose actions it recalls, the layers of patchwork wrapped around the body recall the fragile presence of a social body that is invisible in people's lives and that demands to be recollected over and over again.

Although much has been written with reference to the Pacific about the importance of culture in the fashioning of identity and of relations to the homeland, little attention has been paid so far to cultural differences in the conceptualization and transmission of politically and economically effective relations of kinship (Lee and Francis 2009). Mike Evans has described for Tonga the embedding of culture in a transnational context in which potential kin and kin-like relationships are actualized and maintained through exchange (Evans 2001, 58). Others, such as Cathy Small (2011) in her book on Tongan migration and transnationalism and Tevita O. Ka'ili (2005), capture the far-reaching exchange and social networks that are sustained by the cherished knowledge of socio-spatial ties. The mass movement and the multidirectional flows of people, ideas, and goods have been most richly described with reference to Tonga. It has been shown how reciprocal exchanges at all levels of Tongan society are organized through a socio-spatial ontology, which allows for space-defining artifacts such as woven mats to make manifest relations between persons in a non-random and predictable manner (see Ka'ili 2005, 91). The material translation of woven mats into stitched patchwork, which has occurred throughout Eastern Polynesia including the Cook Islands, allows us to see the role of composite images in the extension of personal agency and the fashioning of transnational household economies that control the flow of property, of ideas and of people in ways that are both predictable and memorable, yet also open-ended.

From Tonga, over to the Cook Islands, Tahiti and Hawaii, patchwork quilts known as *tivaivai* (tifaifai) have formed an incremental part of exchange economies throughout the twentieth century and have begun to replace artifacts made from plant fiber at important life cycle ceremonies (Jones 1973; Arkana 1986; Hammond 1986; Poglioli 1988; Rongokea 1992; Shaw 1996; Küchler and Eimke 2009). While this essay restricts itself to the analysis of Cook Island patchwork, the findings should be seen in comparative perspective, raising questions as to the differential relational logic of transnational communities and its long-term and far-reaching effects.

Cook Islands patchwork in the making

The association of the patchwork quilt with memory, with protection and with the sustaining of connections hidden from plain view has inspired generations of scholars and practitioners.¹ The quilt in the Cook Islands may appear to us to inspire nostalgia as it comes as a tangible thing, one that has been crafted, altered, and used by people and that is telling of times gone past in ways which is matched possibly only by narrative. However, this interpretation would only capture the most overt expression of what quilts make possible in this society.

As Judy Elsley has argued in her book on *Quilts as Text(iles)*, the general topos of the patchwork quilt can be compared to a text which takes shape in blocks that form an ever larger pattern “whose central motif is change” (1996, 1). While the analogy with writing is not one I want to pursue here, it is useful in allowing us to discern a unique feature of the activity of quilting which lies in the patterning of a surface: like pen on paper, the pieces which compose the quilt serve to draw ideas together in a manner that speaks of a synergy of making and knowing which the final product carries forth as a potential. In the same way as we readily accept that the writing down of a narrative makes its content portable as well as comparable and combinable with other narratives that are written both before and after, patchwork made of stitched fabric pieces lifts the resulting pattern onto a spatial



Fig. 1. Tivaivai taorei stitched by Vereara Maeva; collected by the Rarotongan Hotel; photograph (2008) Susanne Küchler.

¹ Sections of this text have been originally published in Küchler and Eimke (2009).

and temporal plane where it functions no longer as a singular, but as a multiplier, as a provocateur or agent of transmission.

Patchwork as a technique has its roots in European decorative sewing used to embellish clothing, bedding, and other textile items, either by itself or in combination with quilting, which is a different process all together (see Horton 2005, 17). The two techniques may be combined, as they have been in American colonial history, yet they can also be used on their own to create planar surfaces where patterns appear through stitching. In quilting, two or more textiles are layered through stitches that penetrate all layers and that form a design through an alignment of rows of stitches. Patchwork, on the other hand, involves combining small pieces of fabric to create a surface pattern; this additive process may either take the form of piecework, in which fabric pieces are sewn directly onto each other, or the form of appliqué, in which fabric pieces are arranged and sewn onto a fabric background that is part of the pattern.

Where patching occurs on its own, superimposed onto a second layer of fabric, as is the case in Eastern Polynesia, the resulting artifact is fragile and impractical for daily use, as any washing would be likely to shrink top and bottom layer in different ways; in the Cook Islands, moreover, the impracticality of the resulting sewing is heightened by the size of the quilt, and by the type of cloth used, which is not colorfast and is selected for properties that have more to do with the mode of fabrication, sometimes involving the tearing of cloth into pieces, than its durability. Were one to use these as bedcovers, the time invested in stitching tiny pieces into place would stand in no relation to the brevity of use the artifact would afford; unlike other forms of quilting, patchwork must be motivated by non-utilitarian considerations.

In fact, we get at the motivations behind patchwork when we ask what does the sewing of fabric 'do' when carried out ostensibly *not* for everyday use. What it does is brought out well in studies, mostly from the US, which use entire collections of quilts and their patterns to shed light on relations of kinship that have connected women to each other and to the homes they have inhabited (O'Bagy Davis 1990, 1993; Horton 2005). Patchwork appears to encode in its patterns a map of social relations that animates genealogical information by allowing the quilt to stand in for the maker and occasionally the person it was made for.

Beyond genealogical information, quilted patterns have been shown to document a microscopic perspective on attitudes to material culture within the home that can be compared to the macroscopic perspectives that are generally captured by historical studies of wider societal patterns of consumption and identity construction. Patchwork allows us to get a glimpse of preferences for texture, color, and even the print or the smell of cloth, its weight and its sounding when unfolded, which speak as much about the time and place inhabited by mem-

bers of a household as the patterns which are created through patching pieces of cloth together. Patchwork thus makes tangible the wider material relations, evoking the character of a place and a time and carrying it to other lands and times. In the Cook Islands, patchwork is stitched by women throughout their married life to be sent away as a gift to the many overseas places where members of the household reside, and beyond these places via a network of friends and work colleagues whose lives have touched the household. Folded in cupboards and stored in trunks, patchwork is an invisible reminder of places and relations that call up a possible future, rather than just a known past.

The patchwork draws one into its own world by virtue of the simplicity by which it represents the lived-in material world, presenting it to us as retention that we can use to think with when comparing here and there, now and then, and when plotting the future course of our lives. Yet more than anything, it may be the pattern that attracts our attention, as it is suggestive of the maker in ways that are very difficult to fathom. There is the stitch, the size, and the shape of the pieces of cloth and the preference for ways of aligning them into a regular pattern, all elements that draw together a polyphony of relations that make up a person's identity. By drawing discrete elements together into a tightly structured composition, patchwork schematizes and thus enables the recall of biographical time, itself made up of manifold relations coming together in ways that projects an *idea* of relation.

We can thus assert that patchwork, wherever it is made, is likely to possess a distinct socializing and historicizing potential, as it encapsulates as composite the idea of relationality and serves as an instrument for the conversion of value into intangible values which are synonymous with the moral economy of the household. Such a conversion can be seen as the *qualisign* of a quilt, one that is inherently linked to its importance as agent of transmission: in other words, the fact that a patchwork is made of fragments of cloth is more than a metaphoric allusion to the quilt's capacity to 'gather' the distributed and relational elements of a person's life into a single frame, very much like a written biography, but must also be seen as an indicator of the political economy of the household.

The prevalence of patchwork in households, therefore, does not speak so much of economic necessity or virtue, but of a value placed on fabric as a material that is uniquely able to blend together distributed resources and relations, which gathered together make up a person's identity. Patchwork quilts are stored and treasured the world over, rather than sold and bought, and hold their value over time as a result of their ability to personalize the value of the cloth. The reason for the fabric's apparent capacity to transcend the socialness of things, which binds value into patterns of consumption, is unlikely to be explained, however, just by its materiality; the fact that a patched quilt is made from fabric

would not adequately distinguish it from a host of other valuable fiber-based products such as weaving or clothing. Rather, it is to the technique of assemblage and the manner of composition that we must look to understand how patchwork can convert cloth into a measure that, at certain times, can be used to gauge and to reckon the relations between persons as well as between persons and things.

The patchwork quilt already denotes in its name the laborious task of the technique of ‘patching’ that captures the success and efficaciousness of the household economy. The fragility of the patchwork is a tangible reminder of the work of detaching, connecting, reversing and modifying that it demands. Patchwork is indicative of a surplus of fabric, but also of a surplus of time – suggesting a division of labor within and between households which enables the conversion of a tangible commodity into the manifestation of an intangible resource. When patchwork are sold or gifted in life-cycle events, their value is not measured in terms of the original cost of the fabric used for the manufacture, but in terms of a monetary value placed on the time it took to sew. As it is surprisingly less the material value of the fabric than the embedding of time into the folds of the fabric which matters when patchworks come to market, such patched quilts may be best described as a *sewing* – a notion which expresses the temporal performativity of patchwork whose material life is punctuated by moments of airing, inspecting, unpicking and re-stitching.

What is that time, however, which is thus measured by the technique of patching? Is it an abstract notion of time, a quantifiable entity of fragmented durations of a specified kind? Or is it an experienced measure of time, a moment in a woman’s life that may be as long or as short as it appears in recollection? Both notions of time are grounded in experience and may be incited by the patchwork quilt, yet neither tells the full story, because time itself is transformed into a pattern in sewing patchwork, the combinatorial, fractal, and relative nature of which projects a map of biographical relations as a foothold for the navigation of trade and exchange relations sustained by households.

There is perhaps no better example for the work done by time maps in the fashioning of effective transnational relations than Cook Islands quilts. There are three different grand types of technique found in Cook Islands’ sewing which I shall be introducing in this chapter, each with its own characteristic *durée* which comes to resonate in complex ways with the biographical relations people draw on when making claims to identity, land, and knowledge, and engaging kin in the many satellite communities overseas or back in the homelands in the passing back and forth of ideas, moneys, and goods of all kinds. Being gifted a patchwork obliges one to maintain a specific relation with the maker and members of her household, the nature of it is visible in the composition of its imagery.

The most important and rarest patchwork in the Cook Islands is known as *taorei*, and involves the creation of self-referential and replicated patterns by shredding fabric and restitching often several thousands of tiny pieces of cloth (see Figure 1). Each such pattern is known by its distinctive numerical combination of colored patches. The pattern is stitched by a number of women working together, each stitching a rectangular segment of a composite motif, which is then assembled into the patchwork. Women assisting the maker have a share in the pattern and are able to reproduce it in future patchwork, yet only the maker is able to pass it on to a selected granddaughter who inherits with the patchwork the *taunga* or knowledge of her grandmother, of which patchwork is just one articulation. The second technique, known as *ta taura*, involves cutting out composite parts of plants and arranging them symmetrically on the surface of the cloth – usually rotationally and in a replicative fashion – before affixing and revealing the depicted plant’s identity through embroidery. *Ta taura* are gifted between members of the same generation and as such move beyond the furthest reaches of the household to be returned eventually and placed into the grave around the body of the maker. The third technique, known as *manu*, involves the symmetrical and repeated folding of a piece of cloth, the cutting of the shadow cast by a plant into the folded cloth, and the superimposition of the unfolded symmetrical cut out onto a piece of cloth of different coloration. *Manu* are gifted to friends and work colleagues, or to sons and daughters in support of their exchange obligations, and are often lost in the course of their rapid passage from one house to another.

Patchwork is hugely popular across Eastern Polynesia and a must have in the ceremonies that punctuate the life cycle, from significant birthdays and first haircuts, to weddings and funerals. Almost to underscore its role in cementing and crafting the transnational relations in support of a mobile population, patchwork sewing here is utilizing ‘new’ material, detaching thereby the materiality of the quilt from personal associations that worn and reused fabric may harbor. As sewing in the Cooks uses store-bought cloth, and as quilts are rarely stored or circulated in exchanges for longer than a generation, the retrospective which the patchwork quilt invites so clearly in the US is turned into a prospective enterprise. New cloth and new sewing is demanded for the many events that punctuate the calendar of households, making new communities and new extended tentacles of the household come alive through the inherently compositional actions of shredding and restitching cloth into always new and yet recognizable configurations.

We cannot understand the resonances provoked by such sewing, however, unless we note that its pattern is not the result of a random assemblage of scraps of cloth, but one that documents a consciously executed plan which started prior to the purchase of the material; a pattern, moreover, whose complex process of cre-

ation surpasses the functionality of the sewing as a decorative cover and situates it squarely in matters of direction-finding and future-directed thinking. The Polynesian quilt, and Cook Islands sewing in particular, we may note with surprise, is thus not just a documentation of something that we may verify externally by recourse to history, oral narrative, or written or remembered genealogies. Rather, it is the means by which such discourses about history and biographical memory are made possible through recourse to an abstract map of distributed personhood, revealing the logic by which relations are traced and connections are asserted that extend across time and space.

Time-maps

To visualize how *tivaivai* may effect the gathering of distributed effects and relations of the household in ways that sustain transnational communities unfolding between diaspora and homeland, it is useful to recall how they are made. As in weaving, it is impossible to arrive at a product which displays at least a certain amount of surface regularity or a definite size without making a prior plan, meaning that decisions need to be made about the type and quantity of the material, into what shapes it is to be cut, and in what order the pieces of fabric are to be assembled. When starting to work on the quilt, the needle effects the threading of the pieces, with the eye following the course of the needle, very much in the same way as the eye will traverse the surface of the finished work, taking a course that will effect what we may call the recognition of its pattern. Looking at this planar surface, or anticipating it in production, utilizes mental images that are derived from our experience of space, which is of course as much embedded in culture as in certain cognitive universals, given that our predisposition to experience space walking upright in a directional manner is limited by the material environment around us (see Johnson 1987). The translation of a mental image of space bounded by things into an image in which space is limitless, teasing the eye to move from point to point to search for connections between visual fields that cluster around points, is a task we call mapping.

Mapping, of course, will lead to different kinds of maps, depending on pre-conceptions about the nature of the connections between the points. A medieval map of the world, for example, placed emphasis on the biblical connections between points, thus creating a hierarchical map of continents and places radiating outward from the point of creation. Although it does not correspond to our experience of the world today, we can still ‘read’ this map with the knowledge of the cultural conventions that pertained at the time of making. The claim that Polyn-

sian quilts are mappings of space-time calls for an investigation of the particular cultural conventions on which they are based.

Much has been written in psychology and anthropology about the conception of space, the representation of which appears to fall into two types: as either point fields or as automatically bounded ‘containers.’ The latter is the most widespread used the world over; the lack of an explicit name for this representation of space as a box filled with matter, despite our colloquial use of it (as people talk about space ‘as a place in which something is located’), may indicate that it serves as a kind of default mechanism for thinking about space. It is only in modern, relativistically-oriented physics and cosmology that we adopt a point-field manner of representing space as essentially a *relation on points*, with distance being derived from the acceleration of particles *over time*.

Contemporary physics, in its attempts at understanding the nature of non-linear and topological space/time in which boundaries are defined by the symmetrical overlap of adjacent topological fields rather than existing as axiomatic constituents of a given space, provides support for the common intuition that in the lived world, time and space cannot be disentangled. Surprisingly, however, only a few anthropologists have paid much attention to this fact, most notably Granet (1968) in his important account of Chinese conceptions of time and space. Granet’s study provides strong evidence for the importance of temporal conceptions to the mapping of the world since they enabled the Chinese to navigate the oceans effectively long before people from the West. For in fact, the Chinese had figured out a way of calculating units of space to correspond to (accurately measured) standard units of time.

The preoccupation with keeping time in the linear and cumulative manner exemplified by the clock, however, is not necessarily found across cultures, even among cultures, like those of the South Pacific, whose livelihood depends upon successful navigation. A famous example of skilled navigation using maps of a kind that do not require the element of linear time, but which elevate a notion of fields of relative temporal motion, is known as the ‘stick-chart’ of the Micronesian Islanders (Ascher 2002). Such charts are a geometric arrangement of sticks and shells that depict the interplay of oceanographic phenomena such as wind and sea interaction around the atolls and landmasses. Using a relational and analogical mode of representation that depicts the interaction of shapes and motions in the sea and at the sea-land interface, the islanders deploy both an idealized version for teaching and an actual version for navigation across a complex topography that even includes the underwater landscape.

Time that is depicted in images of constricting or expanding motion between connected points thus feeds into an experience of space as de-centered and relational, rather than relative or egocentric. Jürg Wassmann (1994) has pointed to

Pacific artifacts such as knotted cords, which, like the stick-charts of Micronesian seafarers, direct attention to a topological conception of space that appears to be prevailing in the ocean-dominated landscape of the Pacific. Nowhere else may the practical significance of mapping topological relations of space-time be more straightforwardly important to people as in the Pacific where a constellation of island communities are dotted across the ocean expanse, covering over one-third of the world's surface area, while its total landmass, once Australia is excluded, equates to less than one-eighth of that of Europe. The Cook Islands are in fact a typical example of an island community in the Pacific: its tiny islands and atolls are dotted across an area the size of Europe, inhabited, in some cases, by just a few hundred people. Despite their lack of proximity, the people who inhabit these island communities are culturally and linguistically linked, and are known to have had longstanding and extensive trade and kinship connections with other even more remote island communities, such as the Society Islands some 2,000 miles to the north-east. In this environment, water is the predominant feature and resource, and is a pathway along which people, their produce, and ideas can travel.

In a world dominated by the ocean, like the Pacific, it is thus not surprising that artifacts of navigation have attracted a good deal of attention from anthropology and related disciplines (Gell 1985; Hutchins 1996; Stürzenhofecker 1998; Bernardo 2002). Surprisingly, however, the importance of sewing in the Pacific has so far been discussed without any attention being paid to spatial and temporal conceptions and their representation in an ocean-dominated landscape. This is perhaps because quilts fall so awkwardly between categories of things, between the useful and the valuable, that it is difficult to treat them in any other than straightforward terms – as material proof of the devotion of 'free' time to oneself and one's family.

And yet, it is precisely this observation which must force us to look more closely at what is done with this 'free' time, how it is made materially graspable and clad in images that fill the empty hours of the day as much as they fill the gaps between the points at which the needle is inserted in the cloth. It is by attending to these images as maps of distributed personhood that Cook Islanders are able to engage effectively with the fractured and scattered household that spans the many communities living in diaspora today. The *tivaivai* is thus not just capturing a retrospective of the household, but enables it to be replicated generatively in many places at the same time while retaining its distinctive identity.

There are no historical data that document the take-up of sewing and the fashioning of patchwork *tivaivai* across the island nations of Eastern Polynesia, from Tonga and the Cook Islands to Tahiti and Hawaii. For the Cook Islands we do know that cotton cloth was a sought-after trade item, and that cotton planting and printing were well established on the main island around 1850, barely

25 years after the London Missionary Society had arrived on the islands (Gilson 1980, 44–47). The emergence of patchwork in the Pacific has often been linked to the influence of missionary wives in light of the value ascribed to cotton fabric in the heyday of missionary activity. An alternative and interesting hypothesis advanced by Robert Shaw (1996) has argued instead that the inspiration for patchwork quilting happened prior to and independently of missionary activity. Writing about the history of the Hawaiian quilt, Shaw questioned the link between patching, which was indeed taught by missionary wives to foster domestic attitudes and time management, and patchwork, which in Hawaii resulted in a block-style quilt that involved the cutting of cloth into snow-flake patterns (Arkana 1986). Noting the absence of this type of sewing in the US during the early part of the nineteenth century, with the exception of Pennsylvanian missions who taught German paper-cut techniques at mission schools and only set foot in Hawaii in 1860, Shaw points out that Hawaiians may already have been familiar with sewing, clothing, and even quilts thanks to sailors on the trading ships that preceded missionary influence in the Pacific. In 1800, you could already buy almost everything on the shores of Hawaii, as the booming trade in sandalwood had brought Chinese silks, cotton, and costumes, transported by scores of Russian and Chinese ships. There is no literature to substantiate a link with the take-up of patchwork in the Pacific Islands, but we do know from maritime collections that sailors did not just engrave whale teeth, known as scrimshaw, but also practiced macramé, a type of lace-making, as well as patchwork to while away the long hours of idleness at sea. There indeed appears to be a tantalizing link between the idea of the mobility of home where sewing binds together distributed relations and the sailing ships' use of cordage to bind together the technical means of controlling forward motion within the ships' material frame.

The idea that sewing enables the literal 'stitching up' of space-time, by giving it a material frame where it is experienced as an uninterrupted flow punctuated only by landmarks, is a powerful one in the Pacific where the voyages of trading ships between islands would have lasted weeks at a time, always ending at a definite destination. Still today, the time it takes to move from point to point across the ocean is one that is felt deeply by islanders, often waiting weeks in bad weather for their trading ship to bring fresh loads of flour and petrol to drive electricity. The desire to make time connect more effectively with points beyond the horizon may thus quite feasibly have guided the interest of both sailors and Pacific Islanders in manipulating cloth in a manner that came to take on the form of patchwork (Siikala 1991, 3).

Much of the organization of the home that was set up during the nineteenth century by the London Missionary Society as part of their effort to inculcate new

ways of thinking and being still exists today. The household is the microcosm of the Cook Islands economy and its foundation, but to imagine nucleated isolates striving to maintain a balance sheet of work and leisure would be entirely wrong, for the scattered parts of nucleated households dispersed across the islands and elsewhere are connected to one another both at the level of the social organization of production and at the level of consumption. The connections, which bind households together at the economic and social level, are founded upon sewing bees in which women participate on grounds of friendship, rather than genealogical connection. Such friendships may develop in and around activities organized in relation to the Church, but they may also be based on memories of working together or running communal affairs such as girls' scouts. Memories of events or of certain relations may prompt particular quilting patterns that forever after are associated with these moments that mark women's biographies. Once-off encounters and events such as collective visits by a church group to Australia may prompt a new sewing as much as the careful planning of events such as the first haircut of a son, a wedding or a funeral.

The timing of patchwork carried out by such sewing bees punctuates the hectic yearly calendar of every woman; there is the date set by the minister's wife for the annual or bi-annual competitive display of sewing, the group trips to workshops or visits, each requiring the need to carry sewing as a gift, as well of course as the many household specific ceremonies marking birthdays, weddings, funerals, and commemorative events. Women's sewing groups usually have a joint bank-account, stocked regularly from the sale of sewing at exhibitions and from other sources, used both to finance the purchase of new material and to update the material culture of their homes, the women taking it in turn to shame their husbands by purchasing a new cooker, a new set of dishes or whatever else may need replacing or adding to a house.

Timing one's sewing work is of great importance to fit in with the calendar of competitions and ceremonies that punctuate life in the Cook Islands. Finding time for sewing is not always easy as many women also have to attend to paid employment, to gardening, and to participating in the many year-round village sports as part of their daily chores. Many women resort to employing the services of others, either because these women are known to be expert cutters of cloth or particularly good at stitching a fine and regular line, or else because they themselves are going through a hectic phase in their lives at a time when their peers have settled down. Yet others have not learned to sew the fine stitches required for the making of quilts in the Cook Islands and deeply regret having to rely on other women's time to supply their house with quilts.

The timing of sewing, however, also constitutes the value of each quilt, as well as the labor costs it incurs. Thus women can estimate with ease the expense

incurred in purchasing each other's time or skill, in asking others to do the stitching or the cutting to complete a quilt in time. Several women also have reciprocal arrangements to gift each other's time, which is in any case a prerequisite for the collaborative sewing of a large patchwork quilt, whose triangular sections are stitched by different women who expect as remuneration the return of such favors when it comes to the construction of their own quilt. By joining such cooperative ventures resulting in a patchwork quilt, women also inherit the pattern, which forever is associated with the circle of women and the circumstances that brought them together.

The quilt in a woman's life

Inspired by fiber-based techniques of lattice-work, the patchwork of the Pacific have emerged as key loci of a tacit knowledge of how to manage socially effective biographical relations in ways that resonate with genealogical relations, but which are nevertheless quite independent of kinship. Quilting is of interest to people in the Cook Islands, not because it sheds light on existing relations created through marriage or birth which regulate the transmission of land and of entitlement to positions of influence and power, but because new relations – of friendship, of adoption, and of acquaintance – can develop in the vicinity of a sewing which link the makers to each other. This glue, which binds across time and space people who have otherwise no other relation with one another, is the act of patching itself which translates actual events in time into abstract geometric patterns.

Overtly it is biographical events of the maker that are traced in the stitched patterns of the large and elaborate appliqué and piecework quilt patterns (Rongokea 2001). Akaiti Ama was the eldest of five children in an important noble family on Rarotonga. On her mother's side, she descended from Potiki Taua, a high priest appointed by Tangiia Nui Ariki to perform priestly functions, especially concerning the investiture of *ariki* (high chiefs) at the *koutu ariki* (chiefly court) named Arai-te-tonga-vare-roa-paa. On her father's side, she descended from an important chiefly line from Tahiti, Tamarua Nui. Akaiti Ama gave birth to nine children, but also taught throughout her married life: first as a schoolteacher and then as a high-school principal. In her later years she performed the important function of Justice of the Peace. Alongside her busy public life, she managed to design and sew *tivaivai* for her children. When she was pregnant with her last-born son, Akaiti kept her husband company in the family's pineapple plantation, an experience that inspired her to design and sew an unusual *tivaivai taorei*, which has survived her death as part of a collection of *tivaivai* owned by the Rarotongan hotel (see



Fig. 2. Tivaivai hanging on the line at the Rarotongan Hotel: from left to right, tivaivai ta taura and two tivaivai manu; photograph (2003) Susanne Küchler.

Figure 2). The pattern was shared by the other women who partook in the sewing of this quilt and passed on to the granddaughter of Akaiti's younger sister.

Stored, folded in treasure boxes or sent out those who have departed from the islands to take up work in distant lands, patchwork quilts are the tangible reminders of relationships that are thought to be integral to a person, while being distributed and externalized throughout life. It is symptomatic of this biographical aspect of patchwork that most women start sewing around the birth of their first child, as they begin to be active in the many exchanges that will connect their own household to as many other households as possible in the course of their life. As every quilt is made to be gifted, and is often sewn with a specific occasion and even a person in mind as recipient, such relations are externalized into patterns that become iconic of events and relations. Patterns related to specific events may be later recalled in the making of new quilts, its memory reflected in the flowers or plants depicted, the symmetry used, and in the case of a *taorei* quilt, which is composed of many thousand small pieces, the design (*pu*) which is repeated across the surface of the quilt in a fractal fashion.

Quilt patterns that have been gifted to and sometimes are buried with deceased relatives, such as a son or daughter, are particularly strongly remembered and may be re-made by a woman, in anticipation of her own death, to be given to her eldest surviving child for use in her own burial. While visually the pattern may be seen to serve as a memento of an event or a relationship specific to the biography of the makers, the compositional structure of the pattern transcends this personal space of biography in giving material expression to a de-centered vision of social relations which guides and directs the life-course of individuals through its logic. Fanned out during life, the individual parts composing Cook

Island personhood are brought back together again at death, when those who received quilts from the household return gifts of patchwork to be lowered in the grave. This grave is tiled and covered by a cement foundation and a roof, and, sitting like a miniature next to the house, is the manifestation of the social body governed by a fractal logic by which the many are but one.

Much has been written about 'fractal personhood' in the Pacific where typical 'Western' oppositions between individual and society, parts and wholes, singular and plural do not apply, but where persons, things, and the relations between them, are all thought to be effected through acts of multiplication and decomposition (Strathern 1986; Wagner 1992). No other image has denoted as powerfully such ideas of fractality as the Cook Islands Staff-God and the Rurutan treasure chest in the shape of a figure of which notable examples are held in the British Museum, both collected in the mid-nineteenth century during the early period of missionary influence in the Cook Islands. Like the fractal image of personhood presented to us in these historic sculptures, the Cook Islands quilt is an entity with relationships integrally implied in the ways motifs are serially enchainned, 'budding' out of one another in a depiction of human life. Constructed from layers of criss-crossing strips of fabric that are cut and stitched into regular crystalline patterns on a plane, the Cook Islands patchwork in fact presents the temporal equivalent of a spatial map in the form of a lattice of possible worlds.

The idea of a person being composed of distinct layers of biographical relations impresses itself on the mind imagining the layering of quilts that are wrapped around and folded on top of a person buried in the grave. We could thus think of patchwork as an old, yet also new, means of effectively gathering relations into a single fold in a move that has enabled Cook Islanders to sustain relations across time and space. Old, because it binds together those who live apart, and new, because it acknowledges that effective relations incorporate today not just relations that are based on birth or marriage, but also all those many circumstantial relations that life tends to fashion when it straddles the many places that mark the connections between diaspora and the homelands.

As Elizabeth Arkana writes with reference to Hawaiian quilts, "quilts contain much *mana*. If one should die and leave much spirit behind, it could be damaging and might never be able to achieve real rest" (1986, 5). The intense attachment of person and sewing means that patchwork are only separated temporarily from the maker, eventually being returned at death. As quilt-like sewings are in effect the burial shrouds of their maker, anticipating a future state of being where all possible past and present temporal worlds coalesce, a deep association – which traverses the production, the circulation, and the 'style' of the quilt – exists between biographical time and patching. The patchwork in fact resonates with temporal logic in generic ways that go beyond individual recollections of biographical time

to the non-causal, but *modalized*, that is logically describable, enchainment of events in what Alfred Gell called “B-series time” (Gell 1992, 238–241).

B-series time, according to Gell, reflects the temporal relationships between events as they really are, out there, while the A-series provides subjective and tensed perceptions of events that happen in the B-series’ temporal territory. In order to know how to act in a “timely” manner, to plan and anticipate what might happen, but also to defend claims about the past, we have to construct representations of B-series time, so called time-maps, that allow us to “navigate” in time based on an understanding of how possible worlds are connected with one another (Gell 1992, 235–236). Time-maps, like the maps we use to navigate in space, rely on images to be generated that correspond to how the world appears to us. This translation of non-indexical space-time beliefs into images and back into maps creates what Gell called “indexical fixes” or perceptual beliefs which give rise to our inward sense of time (236–237). Image-based maps of B-series time are not the ‘real thing,’ but as no experience is possible of ‘real’ four-dimensional space-time we are forced to rely on such reconstructions in mastering time.

The mastering of time as genealogical knowledge is of fundamental importance in the Cook Islands where land is at a premium and where locating oneself in a time-map of social relations is the prerequisite for being granted right to land. Where sometimes more than 48 generations can be recounted as coming together in one person, a fractal map that depicts the enchainment of social relations serves as a model of relationality that can be used to make decisions whenever matters of attachment are at stake.

Patchwork thus evokes both a world of images that are derived from subject-centered time awareness (in that they are in and of a specific place and time), and yet, they also match these images against invariant templates derived from the underlying cognitive maps of the B-series (Gell 1992, 254). As maps, image-based representations such as the quilts of the Cook Islands draw out as temporal beliefs the logic of an internal, template-like representation of time. The symmetry specific to each of the three Cook Islands quilts displays precisely such a modal time-map; they do not reflect subjective and tensed perceptions of events or culturally specific beliefs of how events in the past, present, and future are disposed towards one another, but a *generalized temporal logic*; and it is because the mapping of time is *logical*, while reflecting specific local beliefs and attitudes to biographical time, that Cook Islands quilts are recognizable and distinctive across Eastern Polynesia and beyond.

The linear arrangement of the cut-out pattern (*manu*) recalls the linear enchainment of possible worlds in which specific paths are singled out that connect past, present, and future. The cognitive activity of ‘projecting’ that is involved in giving time-maps linearity in this manner is fundamental to the production of the

cut out, which, when folded, requires one to envision the cut lines projected symmetrically across the missing planes in order to arrive at a recognizable image of a flower or plant when the fabric is unfolded. In contrast to the cut out, no unique past, present, and future is represented in the appliqué quilt (*ta taura*): here repeated, identical images, usually of flowers, are arranged, mostly in rotational or diagonally offset symmetry, to depict the reflexive, transitive, but symmetrical relation between possible and co-existing worlds, visualizing equivalences between images as a singular, repeated motif. In contrast to the relational symmetry of the appliqué quilt, images are arranged in an asymmetric manner in the piecework quilt (*taorei*): here interconnecting paths (*tiare*) mirror the before and after relation between successive images (*pu*) of possible worlds that, as in the appliqué quilt, are identical to each other. Past, present, and future are depicted as relational, but not unique, and as reflexive, transitive and progressive.

The quilt as time-map is more than a projection of an individual biography, but enables women to project an understanding of their lives in ways that speak to others. One could even go further and say that it is because quilts comprehend time by locating subjective images, sometimes recalling specific datable events, in a logical and non-indexical map, that they can figure as the quintessential inalienable exchange object which enables one to keep while giving (Weiner 1992). We can now begin to imagine how patching may enable women to manage and remember relations unfolding in time, in ways that are made effective in the performativity of exchange, when quilts not only connect persons but enchain past, present, and future in ways that resonate with temporal beliefs.

Conclusion

As agents for the navigating of time, patchwork has real consequence for people's lives, as it makes effective transnational communities manageable by offering the household a tangible expression of a thought that is directed at gathering its distributed relations back into a single place. Much of what can be said about the spatio-temporal logic underlying patchwork could be extended to mats. However, the visual and material differentiation facilitated by the sewing techniques of *tivaivai* amplifies some of the more salient practical reasoning surrounding the making of things that are meant to move as tokens of distributed personhood, connecting persons to one another in a lasting manner. Sewing, in fact, has enabled time-maps to be modalized and distributed, charting temporal worlds predictably and accurately.

The modal logic of composite and fractal images that is found in Cook Islands patchwork projects a conception of personhood and sociality that seems perpetually under construction, while framed by clear landmarks that invite and direct navigation. Kinship aided by patchwork is open-ended and multidirectional in conception, suggestive of ways to balance the dynamic of distribution and containment, of multiplicity and singularity that makes life as a transnational society full of prospect and surety.

Patchwork in the Cook Islands thus has features that are broadly comparable to patchwork made elsewhere, while nevertheless affording insight into how social relations are managed in these islands in ways that are quite distinctive. We saw in this essay how patchwork fuels an economy run on 'past'-time in which generalized commodity value is converted into an asset that sustains and extends the economy of the household beyond the here and now.

More than fashioning a memory that can be mobilized in several places at once as a uniting force, patchwork carries in its distinctive and culturally motivated techniques of composition the shared and anticipated actions that express and sustain the fragility and potential of the ontology of transnational community seen as composite relations under construction. What may appear to the innocent eye as an ostentatious craft made by the busy hands of women thus confounds our expectations with an astonishing testimony to the tooling of indexical relations fit to fashion lives lived between home and elsewhere.

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