Knot News

International Guild of Knot Tyers
Pacific Americas Branch

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The Last Tangle in Paradise

by Bryant Arrington

In 1988, my wife and I headed for Bali as part of our honeymoon. For those that don't know, Bali is on the far side of the planet from the USA. We were terribly misled by reports that suggested Bali was a paradise. But that's another much longer story. Suffice it to say that Bali is as close to Hell as I ever want to get.

As part of our ordeal, we flew Garuda airlines from California to Hawaii to Biak. Biak is an island which is adjacent to and part of Irian Jaya (the Western/ Indonesian side of New Guinea. The Biak airport sells crafts that have been made in the area.

It was at our stop in Biak that I discovered some wonderful finger rings braided out of some kind of plant fiber. The rings are woven from a single strand of fiber into an intricate and beautiful knot. I immediately decided that I would make our wedding bands using the same knot.

I should tell you that my wife and I are artists (among other things) and I had been looking for just the right wedding bands. I bought about 30 of the finger rings which were only about 50 cents each if I remember correctly. It was my intention to reverse engineer the rings, have some gold wire made, and voila! in no time at all I would have two beautiful and very unique weddings bands.

I untied about twenty five of the rings before I began to grasp the difficulty of using this method to discover how a knot is tied. I had to work with rings under a huge magnifying lens and almost became cross-eyed with the effort.

Ten years and a great deal of research have passed. I have determined that the knot is a 9 bight, 10 lead Turk's Head. I am able to tie the knot but only on a much larger scale than the beautiful finger rings that I found on Biak. I have only one of the original rings left.

When we returned from our honeymoon, I was so confident that I went ahead and had pure gold drawn and tempered into a wire that had the same dimensions on the profile as the fibers the natives used (.009 x .035). The gold wire sits in a vault waiting for me to learn how to tie the knot much smaller. I have experimented with the knot using cheap wire and have been most unsuccessful. The wire kinks with every pull of the working end.

Recently, Pieter van de Griend correctly surmised that the knot was the Headhunter Knot. That has led me to Bruce Grant's book in which he describes the knot as used by savage tribes of the Philippines. They use bamboo fibers to tie finger rings and to decorate their weapons.

Coincidentally, I have two very old blowpipes from the Philippines. My Dad brought them back from the Philippines after WWII. I remember him saying a notoriously mean tribe used them. Amazingly, one of the blowpipes has the same ring tied around it. I had never noticed the ring until I went to study the pipes after reading Bruce Grant's book.

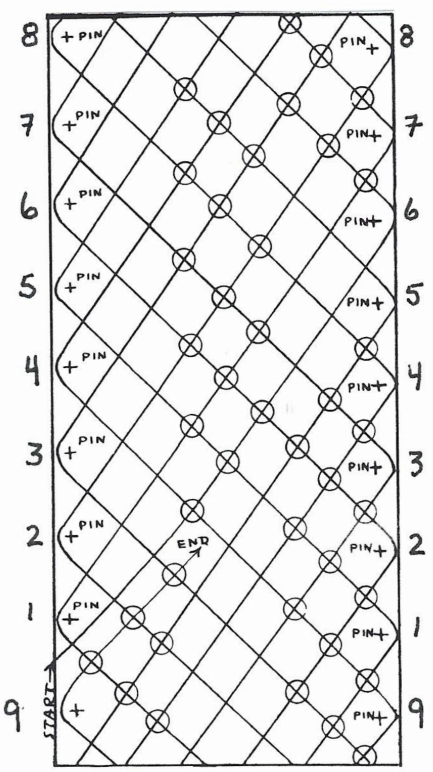
Of course, none of this answers my questions. I am left to wonder how they pull fibers from bamboo. I have some bamboo in the front yard for decoration. So I broke open a stalk and tried to pull some fiber with no success. Just what I need... another mystery.

Is there something about this knot that makes it more 'natural' for primitive tribes to tie? Or was there a common visitor that taught both tribes the knot?

Of course, the biggest question is how do they tie the knot on such a small scale? I have included the code and a method that I worked out for tying this knot. Bruce Grant and Pieter van de Griend also both described how to tie the knot. I have included my method because I elaborate a bit more which might be of help to those less experienced with the Turk's Head.

My wife and I *still* do not wear wedding bands. Actually, they are just a symbol and not that important to a marriage (classic sour grapes response). And I still try to talk to anybody in Irian Jaya that will respond. Nobody else seems to have noticed the rings. A missionary did volunteer to buy some of the rings in Biak when he went through.

But what I really need is an eyewitness that can describe how the rings are made. I think it would make a wonderful video, but I no longer have the time (nor mula) to go traipsing off to Irian Jaya. Any volunteers?



The following is a detailed description of how I tie the Nine Bight, Ten Part Turk's Head. Bruce Grant calls this a HEADHUNTER'S KNOT OF THREE PASSES. "A Headhunter's Knot is where the parts are even and exceed the bights by one."

For me, the biggest question is how can we tie this knot small enough to be a finger ring. The natives use a very small fiber with a rectangular profile. They tie the knot without twisting the strand so that a very flat surface is the result. The rings are little more than 1/8 wide and are made to different finger sizes.

The smallest ring I have been able to braid is more than twice the width of theirs. I use a 3/4 inch diameter dowel. I stick pins spaced evenly in two rows of nine pushed firmly into the dowel. I cut the pins first so that only about 3/16 inch of pin is left exposed. That way, I have enough pin to wrap around and enough exposed to pull them out with pliers when I am done. The pins are obviously located at each bight. I number the pins 1-9 on each row so that my code is easily worked.

I think it is safe to say that the natives of Irian Jaya and the Philippines do not use my method. The mystery that I would love answered is how they tie their knots to be so small. It is worth trying to tie this knot as small as you can to gain an appreciation for the difficulty. Also, try using a flat strand and tie the knot without any twists in the fiber. If you want the ultimate challenge, use wire and keep the kinks out.

Holding the mandrel in the left hand, the left thumb points toward end of mandrel which is referred to as the rear of the knot. The mandrel nearest the thumb is referred to as the front of the knot. There are nine bights evenly spaced around the circumference of the mandrel. Because this is a Turk's Head, the bights (pins) are symmetrically opposite of each other front and rear.

I number the bights clockwise. Start with the entrance of the strand to the right of front bight 1. To be absolutely clear, it should be understood that rear bight 1 is opposite front bight 1. The front bight is closest to the thumb. The working end will continue the pattern with the standing end remaining to the right of front bight 1. You could also say the standing end is between front bight 1 and front bight 9.

The working end: (1) always goes to and around a pin to form that bight number; (2) always goes either **out** to a rear bight or **in** to a front bight; (3) always goes at a diagonal away from a bight (either in or out).

I tape the standing end in place. With the standing end between front bight 1 and 9, go diagonally out to rear bight 6. From rear bight 6 diagonally in to front bight 1 crossing over the standing end.

From front bight 1 diagonally out to rear bight 7 passing under one strand (the strand that leaves rear bight 6).

From rear bight 7 diagonally in to front bight 2 crossing over two strands (the standing end and the strand that exits front bight 1).

From front bight 2 diagonally out to rear bight 8 passing under two strands (the strands leaving rear bights 6 and 7).

From rear bight 8 in to front bight 3 crossing over three strands (the standing end, and the strands that exit front bights 1 and 2).

From front bight 3 out to rear bight 9 crossing under three strands (the strands exiting rear bights 6, 7 and 8).

From rear bight 9 in to front bight 4 crossing under one (the standing end) and over three (the strands exiting front bights 1, 2 and 3).

IMPORTANT From now on the working end of the strand will always cross over the last three strands when going toward the front bight. It will always cross under the last three strands when going toward the rear bight. (SE=standing end, X=exit, F=front, B=bight and R=rear).

From front bight 4 out to rear 1 over one strand (XRB6), and under three (XRB7,8,9).

From rear bight 1 in front bight 5 under two (SE and EFB1), and over three (XFB2,3,4).

From front bight 5 out to rear bight 2 over two (XRB6 and 7), and under three (XRB8,9,1).

From rear bight 2 in to front bight 6 under three (SE and XFB1,2), and over three (XFB3,4,5).

From front bight 6 out to rear bight 3 over three (XRB 6,7,8), under three (XRB9,1,2).

From rear bight 3 in to front bight 7 over one (SE), under three (XFB1,2,3), over three (XFB4,5,6)

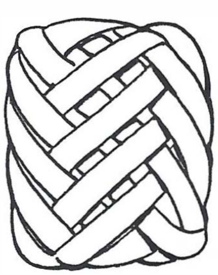
From front bight 7 out to rear bight 4 under one (XRB6), over three (XRB7,8,9), under three (XRB1,2,3).

From rear bight 4 in to front bight 8 over two (SE and XFB1), under three (XFB2,3,4), over three (XFB5,6,7).

From front bight 8 out to rear bight 5 under two (XRB6,7), over three (XRB8,9,1), under three (XRB2,3,4).

From rear bight 5 in to front bight 9 over three (SE,XFB1,2), under three (XFB3,4,5), over three (XFB6,7,8).

From front bight 9 out and under three (XRB6,7,8) to meet standing end.



Branch Bits

Joe Schmidbauer of Corona, California comments: "I recently went on a vacation to Sacramento, California and visited the reconstructed Sutter's Fort there. They had a good number of rope beds there like Marty Combs wrote about in his article (KN#9). They had the kind he described with holes running along the bed frame with the rope threaded through to hold up the mattress. There also was one with wooden pegs along the bed frame which had the rope hitched around it before going to the opposite side peg. I must admit, they did not look very comfortable but, then again, anything is better than sleeping on the floor."

Mike Storch of Colorado writes: I seems my last article about using rope as a ridgepole has generated some comment. This is good. I accept it as constructive.

Yes, there are better knots for the purpose than the one I offered in the article. In fact, I don't use that knot myself. Let me explain: I wrote that article years ago for a southwestern magazine having nothing to do with knotting. Their readership wasn't expected to know anything of our craft. My choice of knots was based on *simplicity* rather than function. It would work well enough, it was easy to learn, and most likely to be remembered and used. In the bigger picture, I was trying to develop an audience through that regular column, and hopefully locate some serious students and future Guild members. Good intentions, but the magazine went defunct shortly afterwards and my efforts came to nothing. In time the PAB ended up with the article ...

As for Terry Ridings comment about 'If the bark is thin enough to be damaged by the rope, then the tree probably isn't big enough to support the load', well, I live above 8,000 feet elevation, and the thin barked species I was referring to was aspen, very common in the Rockies. The Forest Service advises as I do, and professional outfitters routinely use their lash cinchas around these trees and run their rope thru the cincha hooks rather than rope directly around the tree. Terry's thoughts might be valid at sea level but not here.

Should anyone care to carry on further discussion on tree bark, etc. you are welcome to write me direct:

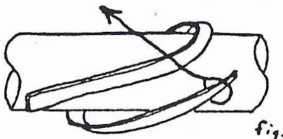
Mike Storch

CO 81147

It seems a violation of the spirit of the Guild and its newsletters to print intramural bickering.

Tom Hall of Bastrop, Texas sent this note: "Enclosed is a copy of a drawing I did of a boat steering wheel knot. It has a hole in the knot for a spoke of a wheel. That way the knot can be centered over the spoke. There could also be other uses for it."

Boat Steering Wheel Knot B=10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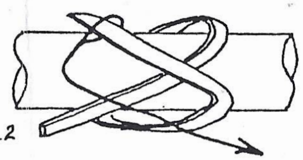
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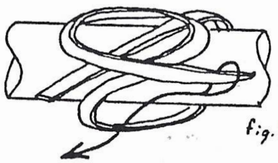
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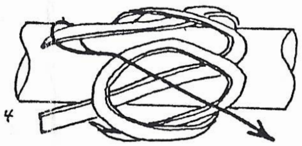
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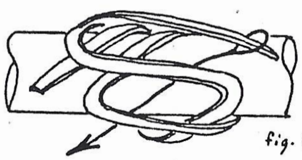
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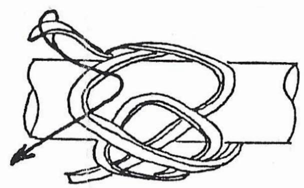
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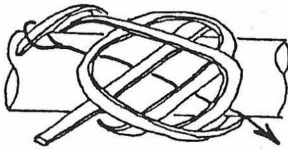
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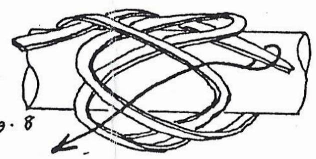
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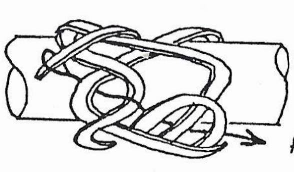
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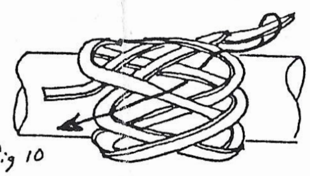
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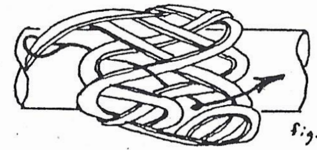
Boat Steering Wheel Knot B=10 (contd.)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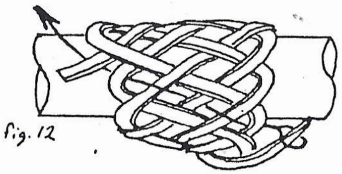
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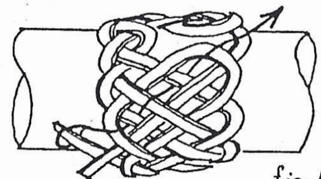
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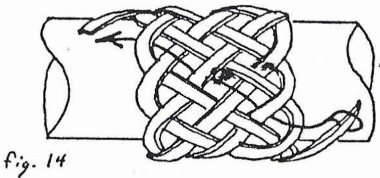
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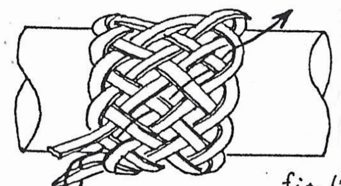
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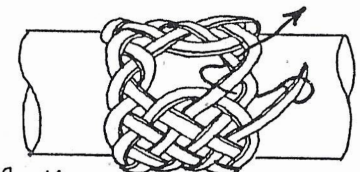
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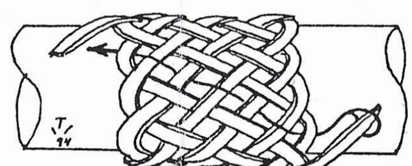
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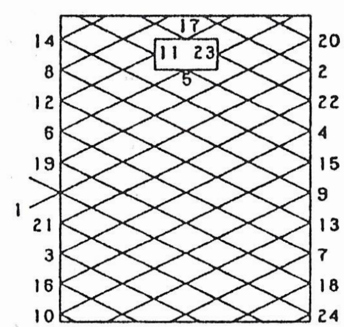
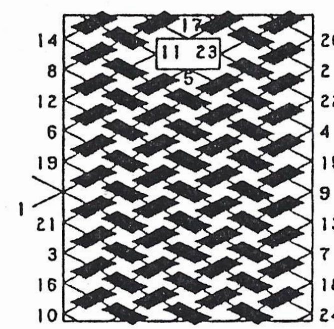




Carlos Albesiano of Caracas, Venezuela e-mailed this note: "Saludos de Caracas-Venezuela mi nombre es Carlos Albesiano.

Soy un experto en nudos marineros y decorativos, durante varios años me he dedicado a la venta de cuadros con nudos marineros, actividad que ya he abandonado por la electrónica. He aprendido a elaborar muchos nudos en forma autodidacta a través de libros, porque me llamo la atención y me gusta mucho la elaboración de los nudos."

From Spun Yarn to Spectra: How Knots Keep Pace With Technology

by Brion Toss

2nd AGM of the IGKT-PAB

Los Angeles Maritime Museum, 26 June 1998

One of my favorite books is called "How Buildings Learn". The title is, of course, counterintuitive; we don't ordinarily think of buildings as capable of any kind of significant change, let alone capable of learning. But the author, Stewart Brand, shows in endless detail how buildings are far more adaptive, responsive, and resilient than they're given credit for. They only appear to be solid, unyielding things, but because their job is to contain people, and people's needs and demands are so changeable, and especially because architects so frequently get things so wrong, buildings just naturally have to take up the slack.

Knots are also structures, of varying complexity and mutability, and they are themselves components of larger, even more intricate structures. They are in fact the focal points, the nodes, the hinges upon which those larger structures move. And as the circumstances that bear on them change, knots, too, learn. And inform.

A dramatic example of this is the change, in the relatively recent past, in the structure of the double-braid eyesplice. Originally, the core was buried into the standing part of the rope; it just threaded around inside the cover, in the eye, and stopped. This meant that one side of the eye was only half as strong as the other, as all the strength on that side was in the cover. But the engineering rationale was that the two sides combined were stronger than the standing part of the rope, so the weakness was only apparent.

The trouble was that, in the real world, the two sides of the eye do not always share the load evenly. In fact at times, as when a mooring line shifts on a cleat or bollard, the entire load can come on one leg of the eye. And if that leg is the 50% weaker one, the likelihood of failure goes way up. The eye can also be real-world compromised by chafe in the cover; again, no reserve strength.

Now picture that the eye is made in a nylon rope, used as a mooring line. Nylon has three notable flaws: although it is about 10% stronger than polyester when dry, it loses about 10% of its strength when wet; it is quite vulnerable to chafe; and when it breaks under load, it can snap back at about 700 ft/sec. I mentioned this speed to someone once, and they said, "I thought it was only 500 ft/sec." As though that was going to make a big difference. Anyway, after that engineering rationale was intersected by a few spectacular, often fatal failures, the standards for the splice changed, mandating a generous bury to the core.

But those spectacular accidents didn't happen just because of the splice; radical changes in rope technology allowed corresponding changes in vessel design. You could now put fewer, lighter mooring lines on large vessels, concentrating loads and lessening the skills necessary for boat handling with weaker lines. So the knot - the splice - was affected by a multitude of factors, some less obvious than others. In case of mooring lines, the splice learned how to increase its real world strength.

But, in failing originally, it also informed anyone who was listening, by pointing out consequences and mistakes in design. Failure can lead to better engineering. In this case, it might cause us to take a closer look at nylon. Why do we make mooring lines out of a material that is weaker when wet, that is vulnerable to chafe, and which can travel faster than the speed of sound when it breaks, straight at whoever thought they were in charge of it? Nylon was the first synthetic with wide rigging applications, but it might not necessarily be the best for this or any other job.

And the double-braid construction, though attractive in terms of inelasticity, hangs half of its strength in that chafe- and UV-vulnerable cover. The construction came out of sheathing for wiring, so the first braids were meant to protect the important stuff on the inside. But in rope, the sheath *became* the important stuff. It's interesting to note that in all the new exotic ropes, all the strength is in the core, and the cover is once again merely a protective sheath. To give you an idea of what the cover has put up with these days, picture a line wrapped around a winch. There's about 3 tons of load on that line, and you have to let it run in a hurry. If the cover is polyester, it is going to melt, just turn to goo when you let it run. So nowadays you can get a cover with some Kevlar fibers in it. Kevlar is much tougher than dacron, and harder to melt. On the horizon: Nomex covers, the same material firefighters use in their turnout gear.

The point here is that ropemakers are still experimenting with materials and constructions, and sailors and other rope users are still presenting then with scenarios that might not be evident in the lab. And all the new stuff and all the experimental stuff has to be accommodated by knots, which is to say that knot tyers have to make design decisions that they might not even realize they need to make.

For example, if you are used to splicing double-braid, and you come across a double-braid exotic, which looks exactly the same as regular braid, you're probably going to try splicing it the same way. You will fail; the cover isn't structural, but it is made much tougher than for normal braid, to take the much higher compression and friction loads that that high-tech core will impose. Or you might come against Sta-Set-X, which has a braided cover, but an unbraided core. All the strength is in the core, but that's obviously impossible to splice, so too many people have simply decided to bypass it, and only tuck the cover, which is essentially decorative in terms of strength, into itself. And they'll be even more likely to do this if they've had experience with a Sampson product with an unbraided core, where all the strength *is* in the cover.

And the problem isn't just in splices. For reasons we'll go into later, there have been lots of failures, for lots of reasons, with practically every well-known knot, in normal ropes as well as exotics. In short, it's as though an ancient technology has come spang up against some brand new situations. Adaptation is mandatory. But it's especially hard to adapt, not so much because new knots are hard to come up with, but because we, the tyers, have a deep-seated assumption that rope, and knots, do not change.

We think this for a number of reasons. First, materials and technology were so stable for so many centuries, changing with tectonic slowness, so that the art took on the appearance of stasis, when it was only limited by circumstances. Next, our ancestors' repertoire of rope and knots was adequate, by and large, reducing the incentive, past a certain point, to innovate. An exception to this was fancywork, which grew at a great rate, because sailors worked under the twin incentives of staving off boredom and being able to show off to other sailors.

Also, we have tended to work, until recently, under the assumption that knotting is complete, that all possible knots have been invented. Remember the international sensation caused by Hunter's Bend? Big, big fuss: A NEW KNOT! That turned out to be an old, not terribly distinguished one. Even the illustrious Clifford Ashley was at one time under the impression that ropework was complete, until he accidentally invented the Oyster Stopper Knot, and the scales fell from his eyes.

Finally, it's hard for knots to change because we have such a hard time understanding them. Ever wonder why it's so easy to tie that most reviled of knots, the Granny? I believe it's because it is the easiest thing to tie if you don't particularly care what the rope wants, or what the situation demands. In order to tie meaningfully, successfully, we must tie in relationship with these things. And the more evolved the rope, and the more complex the situation, the more challenging the relationship. To a great extent, due to the extraordinarily rapid and profound changes in rope technology, we have to start over, figuring out, as our ancestors did, how and why knots work - which ones are appropriate for what circumstances in what kind of rope.

The good news is that we need to know far fewer knots than the people of the last century did: modern rigging, in all its forms is characterized by simpler, albeit more heavily-loaded structures. The bad news is that everything you know is wrong.

The best way to get a handle on what's new is to study history. In the case of rope, history begins with the profound idea that you can spin short, teensy fibers together to make longer, larger yarns. The resulting structure is coherent, flexible, and useable. To make it even more useable, twist up a couple of yarns together. You get more mass, thus more strength, plus it's more solid, so you can successfully tie - and sometimes even untie - knots. There's a definite limit to how many yarns you can twist together without making things mushy, so the next step is to take two or more set of yarns and twist *them* together, to form a strand, and finally to twist two strands together to form the first true practical cordage, which we know as "marline". You now have a further improvement in strength, solidity, and coherence, plus it is now possible to tie multi-strand knots.

An equally profound, though subtler idea is that you alternate twist directions as you build up larger structures, so the fibers go together left-handed, the yarns right-handed, the strands left-handed, and so on. The resulting structure is *balanced*; it behaves well, it is vastly more usable, in almost every instance, than if all parts had the same twist.

Unfortunately, although all this twisting makes a rope more durable, it also makes it weaker than it would be if untwisted, and the harder it's twisted, the weaker it is. The force, as it runs through the rope, has to go around corners to reach the load, and any time that happens the stuff it goes through experiences localized stresses, and is thus weakened. In other words, it becomes necessary to make rope weaker in order to make it stronger. It's a conundrum that ropemakers have been struggling with - really struggling with - for millennia. As you'll see in a little bit, it is only in the last few years that they've made any serious headway.

Knot tyers have been in pretty much the same boat, since almost all knots weaken the rope they are tied in, to varying degrees. Both groups have been coevolving ways out of this problem, and, in the way of these things, all the ways out tend to lead to new ways right back in. For example, ropemakers quickly realized that short fibers are a weak link in ropemaking; they make rope that is weaker as well as more elastic. That's why the long, strong fibers of hemp and manila were so highly prized. So when it became possible to draw even stronger plastic filaments hundreds of feet long, natural fibers went out of style. Except the next step was to take those beautiful long filaments and chop them up into short little pieces. Why? Because rope is made for people to handle, and spun rope is much more pleasant to handle than filament rope. So a lot of rope available today is weaker and stretchier than it could be, because load performance was overridden in favor of ergonomics.

Those are the basic factors involved in ropemaking, and thus knot-tying, as true today as they were at the beginning: twist; balance; fiber length; ergonomics; and the conflicting need for strength as well as durability and utility.

So we've got the rope; now, how do we put it to work? We have to have a knot. Maybe an old one, maybe a new one.

Let's relate this knot to changing technology. First of all if it's old, it might need to be modified for a new setting. Or it might be plucked from obscurity, like some we'll see later.

If it's new, what does it replace? What do we know about it, really? What, exactly, was wrong with the old knot? Asking these questions is a matter of the design process; they're only meaningful to the extent that we understand the job, the rope, and the knot.

Next, what is this knot's field of use? What magnitudes and types of loads is it good at? If it has been transferred from another field, what situations were imposed on it there?

If it seems to be a very good knot, plucked from obscurity, how and why did it remain hidden? Has anything been lost, overlooked, or altered in the translation? Think of the Angler's Loop, that went from fishing to mooring to bungy cord to trucker's hitch to sheets to who-knows-where, and changed in tying technique as well as structure on the way.

Where is the knot vulnerable? In jamming, slipping, lead, radius, easy mistying, capsizing, other? Does it behave differently in different ropes?

What are its strengths? Is it simple enough for sailors? If not, does it do the particular job we want it for that much better than other knots?

That's a lot of questions, but no more than the job is going to ask of this knot. We just have to ask them first, if we want to be spared the experience of learning by failure.

If you can take all conceivable factors into account - assuming you are aware enough to know that there *are* factors - the appropriate knot or knots will be obvious, or at least you'll know the qualities of a knot, even if you don't know the knot itself. You will recognize it when you see it, thus avoiding something Churchill observed: "People occasionally stumble over the truth, but they usually manage to pick themselves up and continue on."

One characteristic of knot evolution is that knots tend to expand, becoming more redundant versions of the original as demand intensifies; think of single and double Sheet Bends, Constrictors, Butterflies etc. But ultimately, additional complexity, or a leap to a new approach, may become necessary.

For example, there's the single-braid eye splice, originally an utterly simple knot, wherein the rope is inserted into itself, and perhaps stitched for initial security. With the introduction of stronger, slicker lines, you see additional redundancy, in the form of a longer bury. If the rope is extraordinarily sensitive to fatigue, like Kevlar, or to a lesser extent the other exotics, you can add in a more exaggeratedly gradual taper. But when the threshold at which the "handcuff effect" is higher than stitches can handle, it's time to make that leap to another level of complexity. In the case of single-braid, this can be a matter of adding a Brummel Splice for initial security, or even going with a multiple Brummel, to replace the bury entirely. It can even mean going to a level where the distinction between knot and rope is blurred: remember, as the helix angle steepens, the rope is weakened, and the helix angle in a splice is always steeper than the rest of the rope, because of the additional material inside. So for extremes of loading, ropemakers might make the section that the splice will fill at an extra-low angle; after the splice has been made, the angles will match.

Of course, innovation isn't always successful. In fact it usually isn't successful. That's why it pays to be very conservative in rigging, particularly when technological change puts bigger and bigger loads on fewer and fewer pieces of rigging. And even moreso when the rope itself is so new that we haven't gotten to know it yet. So be careful, but remember that there are plenty of good knots to learn, and to be discovered.

I'll close with a little more about where knots come from. I asked my spouse, Christian, about this, and she said, "Knots live in that corner of your mind where logic shares a common wall with whimsy." And it's true: you have to be able to think around corners, neither being strictly linear nor entirely associative. You have to feel, to understand what the force is going through on its way to the load. As in any relationship, imposing your preconceptions is a recipe for failure, and involving your whole self is a recipe for success.

"The business of a thorough-bred sailor is a special calling, as much of a regular trade as a carpenter's or a lock-smith's. Indeed, it requires considerably more adroitness, and far more versatility of talent.

A thorough sailor must understand much of other avocations. He must be a bit of an embroiderer, to work fanciful collars of hempen lace about the shrouds; he must be something of a weaver, to weave mats of rope-yarns for lashings to the boats; he must have a touch of millinery, so as to tie graceful bows and knots, such as *Matthew Walker's roses*, and *Turk's Heads*; he must be a bit of a musician, in order to sing out at the halyards; he must be a sort of jeweler, to set dead-eyes in the standing rigging; he must be a carpenter, to enable him to make a jury-mast of a yard in case of emergency; he must be a seamstress, to darn and mend the sails; a ropemaker, to twist *marline* and *Spanish foxes*, a blacksmith, to make hooks and thimbles for the blocks; in short, he must be a sort of Jack of all trades, in order to master his own. And this, perhaps, in a greater or less degree, is pretty much the case with all things else; for you know nothing till you know it all; which is the reason we never know any thing.

A sailor, also, in working at the rigging, uses special tools pecular to his calling - *fids*, *serving-mallets*, *toggles*, *prickers*, *marlingspikes*, *palms*, *heavers*, and many more. The smaller sort he generally carries with him from ship to ship in a sort of canvas reticule.

The estimation in which a ship's crew hold the knowledge of such as these, is expressed in the phrase they appy to one who is a clever practicioner. To distinguish such a mariner from those who '*hand*, *reef*, and *steer*,' that is, run aloft, furl sails, haul ropes, and stand at the wheel, they say is '*a sailor man*'; which means that he not only knows how to reef a topsail, but is an artist in the rigging."

Redburn
Herman Melville

Stop Me If You've Heard This One

The sign on the bar said, "No strings allowed!"

A string passing by read the sign and said, "We'll see about that!"

He walked out to his car, tousled his hair and put a loop in his neck. As he walked into the bar, the bartender yelled, "Hey, can't you read? No strings allowed!"

"A string?" the string said indignantly, "I'm afraid not!" ("I'm a frayed knot!" Get it? Huh? Huh?)

[This joke was related to me by my good friend Brandon Vulgamont]

Tying The Knot

Word of 6 letters meaning:
Part of Hemp Used to Make Rope

T	K	F	D	N	E	B	R	E	S	W	A	H	T
H	H	C	N	I	L	C	E	D	I	S	N	I	A
G	F	R	E	N	C	H	S	H	R	O	U	D	C
I	P	O	B	N	W	O	R	C	F	L	A	H	K
E	R	S	K	S	S	A	E	D	I	L	S	B	B
F	O	D	C	N	T	D	P	O	O	L	N	O	E
O	L	N	I	O	D	E	L	S	L	L	A	W	N
E	O	I	R	E	N	R	V	O	T	I	M	K	D
R	N	W	R	G	A	M	E	E	K	A	K	N	I
U	G	F	A	R	H	B	E	P	D	C	C	O	A
G	E	L	C	U	N	E	R	S	P	O	U	T	M
I	S	A	S	S	E	N	R	A	H	O	R	C	O
F	S	H	E	E	P	S	H	A	N	K	T	E	N
F	L	A	T	R	O	P	E	Y	A	R	N	S	D

Bowknot
Carrick Bend
Cat's Paw
Cuckold's Neck
Diamond
Figure-Of-Eight
Flat
French Shroud
Half Crown
Half-Windsor
Harness (hitch)
Hawser Bend
Inside Clinch
Loop
Mesh
Open Hand
Prolong
Rope-Yarn
Sheepshank
Slide
Stevedore
Stopper
Surgeon's
Tack Bend
Tack Bend
Truckman's
Wall

[Thanks go out to my sister-in-law, Maria, for supplying this word search to me.]

Branch Library

Our Branch continues to grow with more generous donations.

Knots and Physics by Louis H. Kauffinan. World Scientific; 1993

Knots and Applicationss by Louis H. Kauffinan. World Scientific; 1995.

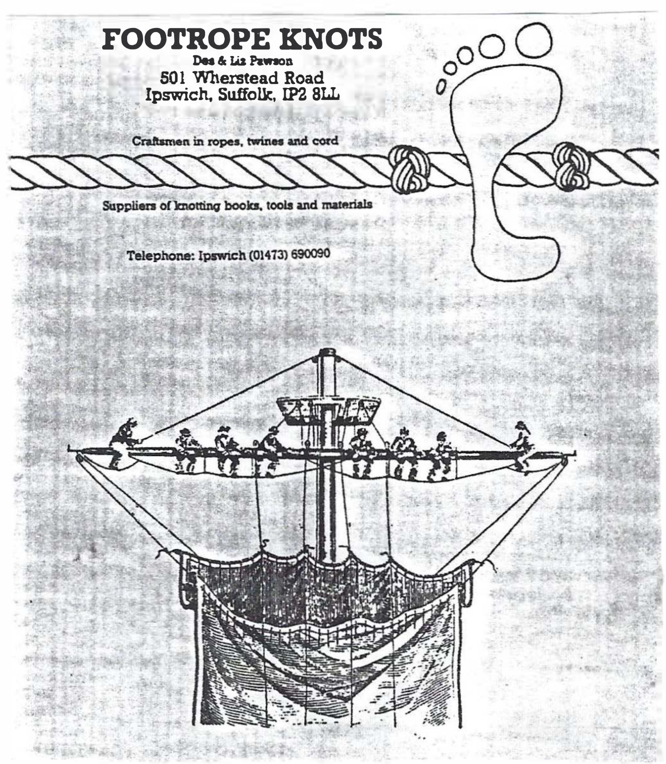
Both of these were donated by Rudy Petschek, 1998.

Turk's-Head Knot Tips: A Knot Tyers Guide to the Turk's Head Knot by Tom Hall. Tom Hall; 199[illegible].
Donated by the author, 1998.

Catalogs

Brion Toss left a pile of his catalogs with us after the Annual Meeting. One is available to any member upon request to the Secretary.

I have also obtained a copy of Des Pawson's catalog of his knotting and knotting supply business *Footrope Knots*.. This catalog must be seen to be believed. It has every tool, rope or book a knotter could want. I will also send out a copy to anyone that asks.

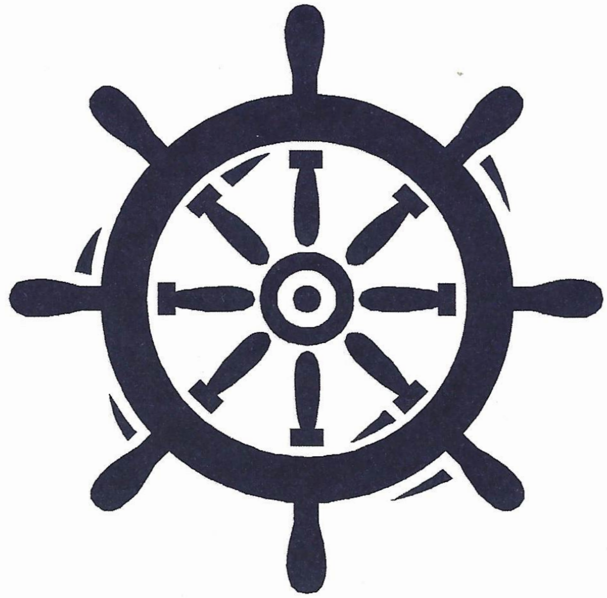


Calander Dates

September 8th - Monthly Meeting 7:00PM
L.A. Maritime Museum - San Pedro, CA

September 12th & 13th - Tall Ships Festival
Dana Point Harbor, CA

October 10th - School Outreach



Knot News
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