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THE WAKARUSA WAVE: AN ESSAY ON LIFE, LAW, AND URBAN KAYAKING

JOHN W. RAGSDALE, JR.*

I. THE WAVE

The Wakarusa River, a rather modest watercourse, emerges from confinement behind Clinton Dam, near Lawrence, Kansas, and flows dutifully eastward in a regularized, barren channel. Perhaps a half mile beyond the dam, the Wakarusa begins to reassert itself as a natural waterway; trees appear along the banks and the stream enters a shallow gorge. Midway down lies the Wakarusa Wave, described by some as “the best whitewater spot within 400 miles.”¹ At highwater, around 1000 c.f.s.,² there is a standing wave, a deep trough, and a high, foaming reflex wave, oscillating, and undulating in place over a bottom irregularity, which is, in fact, a somewhat anomalous limestone ledge, eight feet in height and spanning the width of the river. High water buries the ledge, descends in a green-glass curve, then races through the trough, and recurves upward into a wave which collapses backward onto itself. Lower water reveals the rock and turns the wave into a small waterfall.

The boatman sat on the bank of the Wakarusa, above the wave, on a mid-October day, with his kayak still lashed to the roof of his car. Buddha-like, he meditated on the sight, sound, and movement of the Wakarusa Wave. The sound of racing water is mesmerizing, whether it emanates from the depths of a canyon and only faintly reaches the ears of those distant on the rim, whether it lulls those at rest on the bank, or whether it seizes the entrails of an approaching kayaker. The speed of water is, also, hypnotic, although it is somewhat of a shifting illusion – readily apparent to those on shore but often not fully realized by those in a

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¹ Mike Belt, *Kayakers get Kicks on Wakarusa*, LAWRENCE J.-WORLD, Aug. 8, 2004, available at http://www2.ljworld.com/news/2004/aug/08/kayakers_get_kicks/ (A small area of the Wakarusa River just east of Clinton Lake dam became a kayaker’s heaven Saturday. “This is the best whitewater spot within 400 miles -- I’m not lying,” said Ryan Adams, who has been kayaking for about 10 years. The normally slow-moving, peaceful river outlet had received new life the past few days. The invigoration comes at the hands of U.S. Army Corps of Engineers, which was releasing large volumes of water from the lake because of an abundance of rainfall this summer. The rate of water release was up to 1,000 cubic feet per second, enough to cause a miniature whitewater rapid at a small waterfall. Kayakers call it the Wakarusa Wave. Adams and two other members of the Kansas Whitewater Assn. took their kayaks to the waterfall and spent a few hours practicing tricks such as spinning and cartwheeling).

² Cubic feet per second.

boat who move as one with the water and only comprehend its pace and power by reference to fixed objects, like the bank, trees, or rocks. Indeed, when one is carried by the river, without effort, expectation, or external reference, one can feel part of the larger, universal force.³

He had paddled a kayak on countless bodies of water over the years – oceans, bays, lakes, ponds, rivers, streams, pools, and canals. He liked straight paddling on rivers more than the lakes or the ocean because one can focus on the incremental progress instead of the ultimate destination. In a lake or on the ocean, one can only really fix on the attainment of a point on a distant shore, while on the river you can set your sight on the nearest rock or the next bend and be fulfilled by each segment. In harsher circumstances – those characterized by fear, fatigue, injury, or hunger – you can narrow your entire concentration down to the next rock or the next bend and forge a lifeline. Pain, doubt, discomfort, and even panic can be held at bay, as one's consciousness becomes locked on one step at a time.⁴

³ See FRITJOF CAPRA, *THE TAO OF PHYSICS* 24 (4th ed., updated 2000) (hereinafter CAPRA) (Although the various schools of Eastern mysticism differ in many details, they all emphasize the basic unity of the universe which is the central feature of their teachings. The highest aim for their followers—whether they are Hindus, Buddhists or Taoists—is to become aware of the unity and mutual interrelation of all things, to transcend the notion of an isolated individual self and to identify themselves with the ultimate reality. The emergence of this awareness—known as ‘enlightenment’—is not only an intellectual act but is an experience which involves the whole person and is religious in its ultimate nature.); See also HERMANN HESSE, *SIDDARTHA* 119 (Joachim Neugroschel trans., Penguin Books 1999) (1922). (Everything together was the river of events, was the music of life. And when Siddhartha listened attentively to this river, listened to this song of a thousand voices, when he did not listen to sorrow or laughter, when he did not bind his soul to any one voice and did not enter them with his ego, but listened to all of them, heard the wholeness, the oneness—then the great song of the thousand voices consisted of a single word, which was “om”: perfection.); See also HERMANN HESSE, *SIDDARTHA: A NEW TRANSLATION* 143 (Sherab Chödzin Kohn trans., Shambhala 2002) (1922). ([E]verything together was the river of what is, the music of life. And when Siddhartha listened attentively to the thousandfold song of the river, when he did not fasten on the suffering or the laughing, when he did not attach his mind to any one voice and became involved with his ego—when he listened to all of them, the whole, when he perceived the unity, then the great song of the thousand voices formed one single word: OM, perfection).

⁴ See JOE SIMPSON, *TOUCHING THE VOID* 163 (2004) (Joe Simpson and Simon Yates were descending the summit of a peak in the Andes when Simpson fell, breaking a leg. Yates was attempting to lower the injured Simpson in a blizzard when Simpson again fell over a cliff and dangled, slowly pulling Yates toward the edge. Yates cut the rope and Simpson dropped into a crevasse. Yates, assuming Simpson dead, descended alone. But Simpson was not dead. Horribly injured, he managed to get out of the crevasse and he began an agonizing, one-legged descent toward the base camp. He was able to survive, mentally and physically, by narrowing his focus to the next rock.) (“Stumbling past and sometimes over boulders, falling, crying, swearing in a litany that matched the pattern of my hopping. I forgot why I was doing it; forgot even the idea that I probably wouldn’t make it. Running on instincts that I had never suspected were in me, and drifting down the sea of moraines in a blurred delirium of thirst, and pain and hopping, I timed myself religiously. I looked ahead to a landmark and gave myself half an hour to reach it. As I neared the mark, a furious bout of watch-glancing would ensue, until it became part of the pattern...place-lift-brace-hop-time. If I realized I was behind time I tried to rush the last ten minutes of hopping. I fell so much more when I rushed but it had become so damned important to beat the watch. Only once did I fail to beat it, and I sobbed with annoyance. The watch became as crucial as my good leg. I had no sense of time passing, and with each fall I lay in a semi-stupor, accepting the pain and quite unaware of how long I had been there. A look at the watch would galvanise me into action, especially when I saw it had been five minutes and not the thirty seconds it had felt like.”).

The boatman's reverie returned to the wave itself, and he saw, in it and in his own existence, counter-entropic possibilities. Both the human body and the Wakarusa Wave are complex but temporary patterns in the world through which matters and energy flow. In the case of the wave, rain and snow falling on the up-thrust hills of central Kansas percolate through the rocky soil, collect into feeder threads, join to form the Wakarusa, stall in the reservoir behind Clinton Dam, escape from the outlet, and, reborn as a stream, plunge through the hydraulics of the Wakarusa Wave.

The boatman's own existence paralleled that of the wave, as light, water, food, materials, and energy, gathered and flowing from distant places, entered his form, gave it motion and structure, and then moved on to rejoin the cycle. As Jeremy Rifkin once wrote, in a statement applicable to waves, humans, and all tangible existence, "everything about us has been borrowed."⁵

How does one confront one's personal, momentary grasp at existence in the eternal cycle? With anger, despair, humor, humility, thankfulness, respect, or obligation? Maybe with all of these? Charles Wilkinson wrote wisely:

"We can understand that our civilization is just one modest rock outcrop on a great plain that stretches to the horizon and beyond. Out on that plain, under that sky, we can wonder at time, and feel small in it and give it respect."⁶

The boatman had long embraced a concept propounded by Willa Cather, who described the experience and emotion of a oneness with special places as "possession."⁷ The word is, of course, two-sided, as one can

⁵ JEREMY RIFKIN, *ALGENY 250* (Penguin Books 1984) (1983) (hereinafter *ALGENY*) (The great void that we are so terrified of is filled with indebtedness. As long as we ignore the cosmic ledger, we can continue to organize the world exclusively for ourselves without ever entertaining so much as a smidgen of doubt as to the rightness of our behavior. The moment we introduce indebtedness, the entire picture changes. Suddenly we are surrounded by a multitude of relationships, all of which have contributed to our perpetuation. We live by the grace of sacrifice. Every amplification of our being owes its existence to some diminution somewhere else. In an ultimate sense nothing that we claim as ours belongs to us, not even our fiber and sinew. Everything about us has been borrowed. We have been lent by nature. It has given over to us parts of itself, thus precluding their use for an infinite number of other things. The cosmos owes nothing to us. We owe everything to the cosmos).

⁶ CHARLES WILKINSON, *THE EAGLE BIRD* 7 (1992).

⁷ See WILLA CATHER, *THE PROFESSOR'S HOUSE* 250-251 (1973) ("I'll never forget the night I got back. I crossed the river an hour before sunset and hobbled my horse in the wide bottom of Cow Canyon. The moon was up, though the sun hadn't set, and it had that glittering silveriness the early stars have in high altitudes. The heavenly bodies look so much more remote from the bottom of a deep canyon than they do from the level. The climb of the walls helps out the eye, somehow. I lay down on a solitary rock that was like an island in the bottom of the valley, and looked up. The grey sage-brush and the blue-grey rock around me were already in shadow, but high above me the canyon walls were dyed flame-colour with the sunset, and the Cliff City lay in a gold haze against its dark cavern. In a few minutes it, too, was grey, and only the rim rock at the top held the red light. When that was gone, I could still see the copper glow in the pinions along the edge of the top ledges. The arc of sky over the

possess and be possessed. Thus, there exist the possibilities of divergence and either self-indulgence or self-effacement. The boatman felt that the extremes were not necessary, however, and that the double-bind of possession could be resolved by the Indians' central concept of reciprocity – a non-quantified but still binding interaction between persons and place that affirms the possessory union of obligation and return.⁸

II. SURFING

Gazing at the Wakarusa Wave, the boatman reflected on river surfing. The reference to "surfing" suggests the kayaking of ocean waves, and, indeed, he had done this on a number of occasions, from the sharp shore break of the East Coast to the rolling swells of California and Oregon. River surfing is considerably different, however, because the boater doesn't move with the water's pace so much as he attains a state of balanced repose while the water surges past. Gravity, weight shifts, balancing, and corrections with the paddle can counter the force and flow of the water, and the surfer can, at least temporarily, remain motionless in the speeding water.

It does not feel motionless. If the balance is achieved, and for as long as it is maintained, the surfing kayaker feels the combined speed of the moving water and the gravity-induced descent into the trough. Though the boat may seem an island of calm and equanimity to the bank-side observer, the kayaker feels an exhilarating acceleration across the water. It can be perceived as a strange blend of movement and release: the feel of water surging under the hull, the vision of shattered brilliance as breaking water blends air and light, and the sense of balanced respite at the center of

canyon was silvery blue, with its pale yellow moon, and presently stars shivered into it, like crystals dropped into perfectly clear water. I remember these things, because, in a sense, that was the first night I was ever really on the mesa at all – the first night that all of me was there. This was the first time I ever saw it as a whole. It all came together in my understanding, as a series of experiments do when you begin to see where they are leading. Something had happened in me that made it possible for me to coordinate and simplify, and that process, going on in my mind, brought with it great happiness. It was possession. The excitement of my first discovery was a very pale feeling compared to this one. For me the mesa was no longer an adventure, but a religious emotion. I had read of filial piety in the Latin poets, and I knew that was what I felt for this place. It had formerly been mixed up with other motives; but now that they are gone, I had my happiness unalloyed.”)

⁸ See JOHN COLLIER, *ON THE GLEAMING WAY* 159-161 (1962); LAURA THOMPSON, *CULTURE IN CRISIS* 133-135 (1973) (“Finally, the analysis suggests that, to the traditional Hopi, the world appears as a complex, balanced power system regulated by an inherent rhythmic principle. All phenomena relevant to the traditional life-way of the tribe, including men, animals, plants, the earth, the sun, moon, and clouds, the ancestors and the spirits, are believed to be interdependent. The various orders and suborders of the world scheme are thought to work together for the commonweal by exchanging services or values which are equivalent but not identical. Man, the animals, the plants, the elements, and the supernatural powers interact in an orderly, rhythmic fashion, through correlative relationships for the good of all.”).

motion. Surfing can be an ethereal, timeless racing through the eye of a storm.

Getting in a position to surf – by working upstream or cutting across swift current from an eddy⁹ which parallels the surfing hole – can require considerable skill and effort. Often the boater will mistime or misdirect the approach and will be spun through the trough and forced to seek the eddy and begin again.¹⁰ But, when the entrance is true and stability in the heart of the wave is attained, the experience can be so pure and the release so complete that any journey to get there seems worthwhile. The boatman had often felt that a drive of many miles, or a flat-water paddle for several hours could be instantly validated when the kayak entered the trough and attained that perfect point of balance.

A quest for balance – literal, as in the case of surfing, or metaphorical, as in the case of a way of life – need not be quixotic. The point of equipoise is an identifiable, enduring, and reachable target. Both individuals and societies have viewed this calm center place as the polestar for effort, culture, economics, religion, and life. Such seekers have often been the tribalists whose subsistence-based societies have emerged into the present out of pre-history with their culture and environment largely intact.¹¹ John Collier, former Commissioner of Indian Affairs and a drafter of the Indian Reorganization Act,¹² wrote admiringly of the Indian peoples who had the gift of community, with each other and with the land.¹³

⁹ See LES BECHDEL and SLIM RAY, *RIVER RESCUE 4* (1989) (hereinafter BECHDEL and RAY) (An eddy is a river current that moves upstream after the main, downstream current passes a surface object in the river, or a protuberance from the bank).

¹⁰ The boatman confesses a recent episode of his own mistiming. Paddling a Wavesport EZG50, with low-volume bow and stern, for the first time, he was attempting to surf a large hole in Clabber Creek rapid on the Buffalo River. The river was running at a very high level and the depth and speed of the hole's trough was quite daunting. He mistimed the entrance, spun sideways, sank the stern into an "ender" position and, vertical, shot up the reflex wave into the air where he and the boat performed a full gainer to the horrified delight of Pat Groshong, who was watching from the eddy.

¹¹ J. DONALD HUGHES, *AMERICAN INDIAN ECOLOGY* 1-9 (1983).

¹² Wheeler-Howard Act (Indian Reorganization Act) 48 Stat. 984-988 (1934) (codified as amended at 25 U.S.C. §§ 461-79); See FELIX S. COHEN, *COHEN'S HANDBOOK OF FEDERAL INDIAN LAW* 85-87 (Nell Jessup Newton, ed., LexisNexis 2005 ed. 2005) (1942) (hereinafter COHEN).

¹³ JOHN COLLIER, *INDIANS OF THE AMERICAS* 7-16 (1964) ("They had what the world has lost. They have it now. What the world has lost, the world must have again, lest it die. Not many years are left to have or have not, to recapture the lost ingredient. This is not merely a passing reference to World War III or the atom bomb-although the reference includes these ways of death, too. These deaths will mean the end if they come-racial death, self-inflicted because we have lost the way, and the power to live is dead. What, in our human world, is this power to live? It is the ancient, lost reverence and passion for human personality, joined with the ancient, lost reverence and passion for the earth and its web of life. This indivisible reverence and passion is what the American Indians almost universally had; and representative groups of them have it still. They had and have this power for living which our modern world has lost-as world-view and self-view, as tradition and institution, as practical philosophy dominating their societies and as an art supreme among all the arts. By virtue of this power, the densely populated Inca state, by universal agreement among its people, made the conservation and increase of the earth's resources its foundational national policy. Never before, never since has a nation done what the Inca state did.").

Sustainable communities and points of balance may be contrasted to (and swept aside by¹⁴) entities and societies committed to economic growth and expansion. A veneration of “more” instead of equilibrium – ever more speed, power, wealth, size, numbers, and production – leads inexorably to more consumption, impact, and entropic decline.¹⁵ A commitment to growth, unlike a commitment to balance, seeks no logical stopping place, no point of reflection., no place of satisfaction. The pursuit of more is, thus, restless and never-ending. Balance, though contrastable with imbalance, is not purely relative; it has an inherent, qualitative, absolute essence. A harmonic convergence between a surfing kayaker and a wave, or between a people and the land, is complete without comparison – and without consumption.

Great theoretical physicists like Stephen Hawking have talked about “knowing the mind of God.”¹⁶ Such scientists seem often to exude the confidence that this generation of explorers has approached, or reached, absolute truth. They proclaim, “We used to think but now we know.” The boatman sensed that this was a universal illusion, that all generations of scientists have said, and will say, “We used to think but now we know.” The boatman felt that all physicists – past, present, and future – have not and will not escape the surly bonds of the laws of thermodynamics, and that all descriptions of an incomprehensibly vast and complicated universe were

¹⁴ See FELIX S. COHEN’S HANDBOOK OF FEDERAL INDIAN LAW, 1982 EDITION. (RENNARD STRICKLAND, ed.), 508-510 (1982).

¹⁵ See JEREMY RIFKIN, ENTROPY 6 (1980) (hereinafter ENTROPY) (“Now, however, a new world view is about to emerge, one that will eventually replace the Newtonian world machine as the organizing frame of history: the Entropy Law will preside as the ruling paradigm over the next period of history. Albert Einstein said that it is the premier law of all of science; Sir Arthur Eddington referred to it as the supreme metaphysical law of the entire universe. The Entropy Law is the second law of thermodynamics. The first law states that all matter and energy in the universe is constant, that it cannot be created or destroyed. Only its form can change but never its essence. The second law, the Entropy Law, states that matter and energy can only be changed in one direction, that is, from usable to unusable, or from available to unavailable, or from ordered to disordered. In essence, the second law says that everything in the entire universe began with structure and value and is irrevocably moving in the direction of random chaos and waste. Entropy is a measure of the extent to which available energy in any subsystem of the universe is transformed into an unavailable form. According to the Entropy Law, whenever a semblance of order is created anywhere on earth or in the universe, it is done at the expense of causing an even greater disorder in the surrounding environment.”).

¹⁶ See STEPHEN HAWKING, A BRIEF HISTORY OF TIME, available at http://www.submarineinstitute.com/userfiles/File/stephen_hawking_a_brief_history_of_time.pdf?pwid=d68f7fd29c6eec08f3b3b0301bb035e7 (last visited February 1, 2007) (“Even if there is only one possible unified theory, it is just a set of rules and equations. What is it that breathes fire into the equations and makes a universe for them to describe? The usual approach of science of constructing a mathematical model cannot answer the questions of why there should be a universe for the model to describe. Why does the universe go to all the bother of existing? Is the unified theory so compelling that it brings about its own existence? Or does it need a creator, and, if so, does he have any other effect on the universe? And who created him?... However, if we do discover a complete theory, it should in time be understandable in broad principle by everyone, not just a few scientists. Then we shall all, philosophers, scientists, and just ordinary people, be able to take part in the discussion of the question of why it is that we and the universe exist. If we find the answer to that, it would be the ultimate triumph of human reason – for then we would know the mind of God.”).

still descriptions of a closed system within which humankind struggled fitfully for an explanation of beginnings, endings, and relevance.¹⁷ The lot of humankind was to climb and surmount an endless series of intellectual walls and then, exhausted, accept an incomplete and temporary reality.¹⁸

In the heart of a wave, balanced, with the life force of nature rushing past, one can find a temporary peace. One can accept and love the world even if one can never fully know or control it.

III. THE CONTROL OF FEAR

Despite his reveries, the boatman decided not to surf in the Wakarusa that day in October. The Wakarusa was running about 400 c.f.s. which made the wave “very sticky, deep, and almost impossible to escape from.”¹⁹ The boatman had known numerous people who felt that high risk was the ultimate thrill and that to seek it out, confront it, and survive it would give confidence and strength for even more dangerous challenges. He was a bit skeptical of this philosophy. He felt – with his lawyerly

¹⁷ See ALGENY, *supra* note 5, at 248 (“Our cosmologies protect us. They ease our fears. They make the world seem manageable by projecting it to be a reflection of the world we are managing. If our cosmologies teach us anything, it is that we can feel comfortable only in a world we can fully explain. The problem is that no such world exists. There will always be a yawning gap between the world we experience and the world that exists beyond our experience. Regardless of how hard we try, we will never be able to fill that void. Our cosmologies serve as screens. We use them to hide from the great abyss beyond. We surround ourselves with our cosmologies, and they in turn surround us with a façade of invincibility. We are sure that the world is totally understandable within the organizational framework we create and for that reason remain convinced that we can go on as we are without any fear of harm coming to us.”).

¹⁸ See MICHIO KAKU, *PARALLEL WORLDS* 358-361 (2005) (hereinafter KAKU) (“For me the real meaning in life is that we create our own meaning”) (Such creation, while perhaps incomplete and temporary, need not be without partial satisfaction); See ALBERT CAMUS, *THE MYTH OF SISYPHUS*, <http://www.sccs.swarthmore.edu/users/00/pwillen1/lit/msysip.htm> (“The gods have condemned Sisyphus to ceaselessly rolling a rock to the top of a mountain, whence the stone would fall back of its own weight. They had thought with some reason that there is no more dreadful punishment than futile and hopeless labor”... “I leave Sisyphus at the foot of the mountain! One always finds one’s burden again. But Sisyphus teaches the higher fidelity that negates the gods and raises rocks. He too concludes that all is well. This universe henceforth without a master seems to him neither sterile nor futile. Each atom of that stone, each mineral flake of that night filled mountain, in itself forms a world. The struggle itself toward the heights is enough to fill a man’s heart. One must imagine Sisyphus happy.”); CORMAC MCCARTHY, *NO COUNTRY FOR OLD MEN* 309 (2005) (Cormac McCarthy recently wrote about a dream he had of his father which serves as a metaphor for the unending quest against the night of inescapable ignorance. “...it was like we was both back in older times and I was on horseback goin through the mountains of a night. Goin through this pass in the mountains. It was cold and there was snow on the ground and he rode past me and kept on going. Never said nothing. He just rode on past and he had this blanket wrapped around him and he had his head down and when he rode past I seen he was carryin fire in a horn the way people used to do and I could see the horn from the light inside of it. About the color of the moon. And in the dream I knew that he was goin on ahead and that he was fixin to make a fire somewhere out there in all that dark and all that cold and I knew that whenever I got there he would be there. And then I woke up.”).

¹⁹ Kansas Whitewater Association, (2004), <http://www.kansaswhitewater.org/news2004.html> (hereinafter Kansas Whitewater).

pessimism²⁰ – that too many encounters with high risk will eventually exhaust one's capital of good luck and force one to pay an unacceptable price. Indeed, he personally knew a number of nostril-flarers who incrementally pushed the borders of risk, eventually met their match on a river, and, shaken, never boated again.²¹

The boatman believed in the importance of preserving one's body as well as one's passion. He did not want to die or suffer injury, nor did he wish to be left fearful or apprehensive of an endeavor that he long had loved. Unfortunately, danger sometimes finds even the cautious unexpectedly. Despite the beauty of water and its fascinating motion and in spite of reasonable precautions, there are – like the dark Yin to the light Yang – some inherently dangerous and scary elements to the union of water and kayak.

To begin with, a kayaker is enclosed in a very small craft. When the boatman began kayaking in the early 1960's, he used a boat 18 inches wide and 12 feet long, home-made out of fiberglass, canvas, and wood by the legendary Walter Kirschbaum.²² The modern whitewater playboats are, in contrast, often less than 7 feet in length, 23 to 24 inches wide, and made of polyethylene. Despite their short length, the modern whitewater playboat has substantial interior volume, a large cockpit, and is far easier to enter and exit than the earlier boats. Hip pads, back straps, foot braces, and

²⁰ Lawyers aren't necessarily grim or fatalistic; rather they are, by the nature of the profession, trained to anticipate risk and problems and to avoid them. To put a happier, if not rose-colored, face on it, lawyers may hope for the best but prepare for the worst.

²¹ Mark O'Reilly, a friend of the boatman's since college, moved to Colorado in the early 70's, went to law school at Denver University and then took up kayaking. Intoxicated by the sport and his rapid progress, he sought more and more challenge. One day in June he announced plans to run the Boulder Canyon stretch on the Upper Blue River. The stretch is rated class IV, (*see* GORDON BANKS and DAVE ECKARDT, *COLORADO RIVERS AND CREEKS* 57 (2005)), and was too difficult for even a skillful novice like Mark. He got sideways in the first rapid, came out of his boat; and was swept downstream. Mark was battered about by the water and rocks but was able to get to shore. Friends were, however unable to stop his boat for almost a mile and a half. When a dispirited Mark was finally reunited with his boat, he said nothing. He returned to Denver, sold the boat, and never kayaked again.

²² Walter Kirschbaum was conscripted into Hitler's German army at the age of 15. He was captured by the Russians and placed in a horrific prison camp where he amazingly endured for six years. Here he developed the toughness and survival skills that later characterized his life as a whitewater racer and adventurer. He won the world kayaking slalom championships in 1955, and two years later after emigrating to the United States, he captured the National Wildwater championship. He then began a career as a language teacher at Colorado Rocky Mountain School and Colorado Academy, and as a maker of first descents on western rivers. "... he turned his attention to the region's first descents, most of which he ran in homemade boats. "His goal was to run every significant piece of whitewater in the Colorado drainage," says guidebook author Fletcher Anderson. He did a good job. In 1959, he became the first person to run the Colorado's Cataract Canyon without portaging, and in 1960 he accomplished the same feat on the Grand Canyon. Modern-day paddlers witness his namesake on Kirschbaum rapid of the Colorado's Gore Canyon, which he notched the first descent of in 1965." (http://www.paddlermagazine.com/issues/2000_1/feature2.htm) (last visited June 12, 2006).

The boatman and several other Colorado Academy students made a trip in 1961 with Walters through Glen Canyon on the Colorado River. They were among the last to see this place of incredible beauty as, shortly thereafter, the gates of the newly constructed Glen Canyon dam closed, the waters began to rise, and the wonders of the place – Music Temple, The Hidden Passage, The Crossing of the Fathers – were lost forever.

thigh braces enable a precise fit and great control – but may invite feelings of claustrophobia. This latter sense of confinement is heightened by the addition of a neoprene spray deck, which tightly encircles both the boater's waist and the cockpit rim. The spray deck keeps the water out and – to some degree – the boater in.

The constant, pervasive background shroud to all of kayaking is the fear of drowning. Fortunately, there are several accessories to kayaking that can go a long way toward controlling the risk of drowning, especially if the paddler is adrift. A paddling jacket of nylon and neoprene is a hedge against cold and hypothermia and may have some buoyancy. This is not a substitute, however, for a life jacket, which is essential and may be required by law in some places.²³ A helmet is a final necessity, as a blow to the head and an ensuing loss of consciousness or motor control can make drowning much more likely, even if one has a life jacket. The boatman remembered with a shudder his teenage years in Colorado when he and friends rode the class IV rapids of Waterton Canyon²⁴ in inner tubes with no protective equipment other than bathing suits and tennis shoes. Abrasions were common to the shins and occasionally the head, but no one in this group ever died. This unfortunately has not been the story with other generations of tubers. Every summer in Colorado chronicles the demise of tubers who enter whitewater unprepared and drown.²⁵

Still, no amount of protective gear will guard against drowning if one is upside down in the boat. The spray skirt, if combined with outward knee pressure and thigh bracing, will keep the boater in the vessel while inverted. If, however, the boater doesn't know how to get the boat upright, staying in while upside down is the last thing he wants to do. A sincere desire to exit the kayak is easily accomplished by pulling the skirt off the

²³ See David Kibbe, "Kayak Safety Bill Heads to Senate", <http://www.southcoasttoday.com/daily/05-06/05-13-06/09state-region.htm> (last visited June 12, 2006) (Under a new bill working its way through the Massachusetts legislature, kayakers would be required to wear life jackets, and carry a compass and a whistle).

²⁴ Eddy Flower, *Waterton Canyon*, <http://www.eddyflower.com/rundetail.aspx?runid=76>.

²⁵ See, e.g. John C. Ensslin, *Tubers Took on Rough Waters: 26 year old drowned in turbulent patch of Boulder Creek*, http://www.rockymountainnews.com/drmn/local/article/0,1299,DRMN_15_4770005,00.html (last visited June 13, 2006) ("The cause of death was ruled an accidental drowning by Boulder County Coroner Thomas J. Faure. On Sunday, water was flowing through the creek at about 314 cubic feet per second, said Lt. Phil West, a Boulder County sheriff's spokesman. That's about half the level at which the county normally imposes a ban on tubing. Still, the creek was flowing heavily because water was released a day earlier from Barker Dam to prevent it from overflowing. The issue in Sunday's drowning, however, wasn't so much the creek's flow but the point at which the group chose to put in, West said. "In this case, the point where they were tubing is very rough and very turbulent," he said. He noted that the victim suffered a significant amount of head trauma and may have been knocked unconscious before he drowned. Monday's warm weather drew several people to Boulder's Eben G. Fine Park, where some visitors maneuvered the creek in inner tubes despite the drowning. "(The ride) was a blast," said Seth LeJeune, 20, of Lafayette, who rode the creek for about 90 minutes until a slow leak left his tube deflated.").

cockpit by means of the strap attachment,²⁶ relaxing the knee pressure, and pushing the hips out of the boat. This maneuver, known as the "wet exit," is then followed by the considerable and necessary tasks of getting the boater and the flooded boat out of the river. In heavy rapids this may be nearly impossible and sometimes fatal.²⁷

One would, if possible, rather remain with the boat and turn it upright. The best protection against drowning and the most indispensable skill possessed by a boater is a recovery or roll which rights the boat with the paddler still in place.

The execution of a basic roll begins with the decision and commitment to remain in the craft and right it. One braces the knees, contracts the abdominal muscles, and raises the torso, head, shoulders, arms, and hands toward the front deck and to one side. The boater then, with hands still on the paddle in stroking position, holds the paddle parallel to the boat and thrusts it up, as high as possible, out of the water. From this position, the kayaker first makes sure that the front blade is flat on the surface of the water and then begins to sweep the front blade outward. The front blade should remain flat on the surface of the water during the sweep, and the backhand and back blade should remain above the inverted bottom of the boat. As the front blade sweeps out, the side of the boater's torso should remain close or in contact with the hull, creating a curved or "C" position. When the sweeping front paddle has approached a 90 degree angle to the boat, the kayaker contracts his extended side and drives his knee and hip toward the paddle blade. If all goes well, the boater is rolling toward uprightness, which the boater can ensure by keeping his head down and low until balance is achieved.

²⁶ The novice boater should be counseled at the earliest opportunity to make sure that the strap attachment is outside the sprayskirt elastic and not tucked inside.

²⁷ See, e.g. JIM CASSIDY, BILL CROSS and FAYAN CALHOUN, WESTERN WHITEWATER (1994) (hereinafter WESTERN WHITEWATER) (The authors describe the dangers of coming out of one's boat and swimming in Pine Creek Rapid on the Arkansas River) ("Pine Creek Rapid (V-VI). The boulder-choked streambed squeezed between the railroad and the old stage coach road forms the most difficult rapid on the Arkansas. Recognition: The river bends left and an anvil-shaped rock overhangs the right side of the river upstream from Pine Creek, which enters on the right part way down the rapid. Boaters have long used the old road on the left for an easy portage, but technically it is trespassing on private property. The rapid: A 100-yard maelstrom of irregular waves and powerful holes gives way to a long Class IV boulder garden studded with jagged rocks tumbled into the river by railroad construction. Except at very low flows, Pine Creek Rapid has few catchable eddies, and a swim here is a bruising, frightening, and potentially deadly experience. Top experts only. Not even experts should run Pine Creek Rapid at high water.").

IV. ENTRAPMENT

But proper gear and technique are not always enough. The ultimate risk in boating is entrapment which may occur despite the possession of a competent roll, helmet and life jacket, and despite even the presence of friends and potential rescuers. It is possible, though unlikely, that one can be temporarily trapped by a failed wet exit. Though spray decks are made with a front loop that permits the deck to be pulled off the cockpit, one may inadvertently tuck the loop under the elastic, leaving the boater nothing to grab. Fortunately, adrenaline is an effective substitute for some planning failures. A boater in full crisis can easily blast off a loopless spray deck with his flailing legs, even if he cannot get at it with his hands. This is one situation where the presence of friends can generally assure a happy ending. Prior to the onset of boater panic, one nearby can offer the bow of his boat to the overturned distressee who can grab the bow and right himself.

A much more serious situation can occur if the boater is entrapped in the rocks and held in place with the water washing over him. Foot entrapment is especially possible for those outside the boat – waders, fishermen, or boatless kayakers – who try to walk on the river bottom in swift water deeper than their knees. A foot stuck in the rocks, followed by a loss of balance, may leave the pedestrian with his head under the water and unable to rise.

A boater, similarly, may jam the bow of the kayak into rocks on the bottom after going over a ledge or falls, and the surging water may continue to rush over the boat and boater imprisoned on the face of the drop. This is called a vertical pin and escape is complicated by gravity, by the fact that one's feet and legs are jammed down into the boat, and by the weight of the water bearing down. The boatman once went over a small falls on the North Fork of the South Platte River, in Colorado, and pinned his home-made fiberglass kayak in the rocks at the base. The racing water nearly covered him, but, fortunately, it was strong enough to tear the front 12 inches off the kayak and free it.²⁸

Constant concerns of the wary boater include willow strainers, partially submerged logs, or undercut rocks. Currents can push the boat sideways against willow bushes growing in the water, wedge it under a rock overhang, or roll it under a log. A boater will often lean instinctively away from the obstacles prior to impact. This will cause the boat to capsize when

²⁸ Because of the superior durability of polyethylene, few whitewater boats today are made of fiberglass. That is understandable but regrettable in some ways. A fiberglass boat was lighter, and, despite its comparative fragility, easier to repair. You simply slapped a lot of fiberglass patches over the break, sanded and carried on. The noseless kayak described above was resurrected, repaired and returned to action where it lasted for several more seasons of effective if not stylish service.

the current catches the upstream edge of the kayak and rolls it over. The boater can then be caught in the boat with the direct force of the current pushing him into the hazard and preventing his escape from the cockpit. If the boater has enough time and presence of mind before impact, he will lean into the obstacle, keep the up-river edge high, remain balanced and upright, and try to move the boat away from the obstacle.

There is one last demon to confront. This is the danger represented by the Wakarusa Wave itself: the hydraulic keeper or, in the common vernacular, the drowning machine. An insidious aspect of a feature like the Wakarusa Wave is that a boater approaching from above, for the first time, often cannot see or hear it in advance. Since the water pours over a flat lip, there may be no upstream sighting of leaping white water and no ominous ground-shaking roar, such as that characterizing rock-strewn rapids like Lava Falls on the Colorado River.²⁹ The approaching boater may notice a strange breakage in the visual perspective of the downstream water, known as a horizon line. The water closes with unbroken speed, passes over the lip which may be a ledge or an artificial structure called a low-head dam,³⁰ falls straight down, and compresses a sharp trench in the water at the base. The boil beyond the trench flows quickly backward so that the narrow bottom of the trench has water flowing into it from two directions. This is in contrast to water flowing over a rounded face or water flowing over a straight lip and face with a sufficiently high volume.³¹ In these cases, the water's descent is angled

²⁹ See WILLIAM H. CALVIN, *THE RIVER THAT FLOWS UPHILL*, <http://williamcalvin.com/bk3/bk3day12.htm> (1987) (hereinafter CALVIN) ("This morning on the river has been very quiet. There have been no serious rapids, not one. Indeed, we've seen most riffles and whirlpools for almost 30 river miles. Now the Canyon is opening out, great flows of black lava sweeping down the right canyon wall to the river bank. The river is widening and slowing in anticipation of the biggest rapid on the river; the boatmen call this stretch of river "Lake Lava," and they row harder, getting warmed up for the big event. Soon we faintly hear the low, continuous rumble of a distant thunderstorm. But the clouds are clearing, so it's probably Lava Falls announcing itself... We leave the boatmen to themselves, standing on their advanced perch discussing possible routes with much pointing and waving of hands. We stand back on the trail, engulfed by the heat beating down from above and rising up from the hot black rocks beneath our feet. The pounding of the rapid is ceaseless, the loudest we've experienced—it is a low vibration that penetrates your body, from which there is no escape.").

³⁰ See Virgil Chambers, *Low Head Dams*, http://sites.state.pa.us/PA_Exec/Fish_Boat/lowhd1.htm (last viewed June 13, 2006) (A low-head dam is one built across a stream at a low height so that any impoundment is entirely within the stream banks, and the entire stream flow, minus the negligible impoundment, passes over the lip) ("Of all the things you may encounter on a river or stream, the low-head dam is one of the most dangerous. In fact, if an engineer designed an efficient, unattended, self-operated drowning machine, it would be hard to come up with anything more effective than a low-head dam under certain flow conditions... Hazards exist not only from going over the dam, an obvious source of danger, but also from being caught in the backwash below the dam, where the power of the water is sometimes overlooked. Anything caught in this backwash below the dam is trapped and recirculated round and round, making escape or rescue difficult. A person caught in the backwash of a low-head dam in certain flows will be carried to the face of the dam, where water pouring over it will wash him down under and back beneath the boil. When the victim struggles to the surface, the backwash again carries him to the face of the dam, thus continuing the cycle.").

³¹ See Kansas Whitewater, <http://www.kansaswhitewater.org/cgi-bin/liveflows/streamshow>.

horizontally rather than vertically, and the base of the trough will be flatter and flowing rather than narrow and recirculating. If there is recirculation of the water over a narrow, compressed trench, floating surface objects that go over the lip can be pinned against the face of the falls or low-head dam for indefinite, sometimes fatal lengths of time. However, if one is aware of the impending drop, the boater may be able to accelerate, and the speed may carry the boat over the recirculating boil.

The Blue River, in the heart of Kansas City's Blue River Parkway, offers some fine class II and III whitewater which emerges at the numerous ledges after a solid rain.³² The first time down the Blue, accompanied by Oscar Aitken, the boatman was surprised by the respectable gradient,³³ the array of rapids and hydraulics, and the semi-wild setting of woods and bluffs. All seemed somewhat anomalous in the center of a major city. Toward the end of an enjoyable and exciting run, the water seemed to quiet momentarily. Then, at the last instant, the boatman saw that they were rapidly closing on a submerged low head dam. He yelled at Oscar to paddle hard, did so himself, and launched the boat out beyond the boil, though he felt its suction trying to pull him back toward the dam.

It may be possible to escape the grip of a poulover or low-head dam by bracing in the trough on the edge of the boat, with the paddle extended flat and low across the boil. If one in this position can scull the boat, and move it along the trough, one may encounter flowing water, as opposed to the recirculating variety, and escape. A boater is often advised that, if the hole looks like a smile from upstream, it means that the end points of the keeper feed out into the flowing current and a boater who remains upright can escape. If, however, the trough looks like a frown to the upstream boater, it means that the ends move upstream and stop. Escape may be impossible.

As a final, desperate measure, one can take off the lifejacket, reduce buoyancy, exit the boat, and dive deep into the trough. If one can get below the recirculating water and coil at the base of the face, one might

pl?rs=wakarusa%20wave., *supra* note 19, (When the Wakarusa River is running at 1000 c.f.s., the volume is sufficiently high to create "a very playful wave," rather than the circumstances at less than 800 c.f.s., where the hydraulic is "very sticky, deep, and almost impossible to escape from.")

³² See KANSAS WHITEWATER, *supra* note 19, at <http://www.kansaswhitewater.org/cgi-bin/liveflows/streamshow.pl?ST=level>.

³³ See WESTERN WHITEWATER, *supra* note 27, at 255; See CALVIN, *supra*, note 29 (The gradient of a river is usually expressed in terms of vertical feet dropped per mile, on the average. Thus a gradient of 10 means an average drop of 10 feet per mile. This may not sound like much but it is usually sufficient to produce respectable whitewater. In fact gradient of much less can produce extreme whitewater if the droppage occurs all at once. The gradient of the Grand Canyon of the Colorado is less than 8, but a rapid like Lava Falls drops almost 40 feet in a very short distance. "Lava Falls is well named: it looks more like a waterfall than any rapid we've encountered before. Crystal, the worst so far, dropped the river level by one and a half stories. Lava Falls drops three stories, almost four. And it doesn't take very long to do it, either:" The gradient of the Blue River between Holmes and Red Bridge Road is about 20).

push off forcefully, catch the downstream flow under the boil, and escape. Occasionally, the recirculation is not that deep and, when one capsizes, the lowered center of gravity, represented by the down-hanging head, arms, and torso, may be enough to reach the downstream flow. If, however, one flips and does not reach the undercurrent, the dramatic effect may be the dreaded “window shade” where the boat and boater revolve, repeatedly and spontaneously, while still in the pourover’s thrall. For large recirculations, such as the massive one that killed Olympic kayaker Doug Gordon, in the heart of the legendary Tsangpo Gorge,³⁴ probably no amount of individual or collective human effort at any depth would be strong enough to break free of the deadly back flow.

V. DANGER, LAW, AND PLASTIC WAVES

Danger and the risk of physical harm is present in most competitive sports. In the majority of cases, injury is incidental – a byproduct of the game, an unfortunate and unnecessary occurrence even if not uncommon. The essence of basketball or tennis would be relatively unchanged, and the games no less challenging without sprained ankles or torn rotator cuffs. However, in other sports, such as boxing, karate, skiing, and automobile racing, the possibility of serious injury is an inherent and perhaps important aspect. Competitors employ technique against both human opponents and danger. In the high-adrenaline individual sports, such as rock climbing, BASE jumping,³⁵ hang gliding, bicycle and snowboard aeriels, and extreme skiing, danger assumes its greatest and most direct role. The athletes employ their skills on an ascending gradient of difficulty, fear, and danger until the competitors reach the narrow divide between survival and disaster.³⁶

³⁴ See TODD BALF, *THE LAST RIVER* 221 (2000) (“After the third missed roll. Doug is drawn into the driving current, then avalanched seconds later into the first big hole. It’s twenty seconds before Roger and Jamie see his boat pop up-but it’s upside down in the backwash, and neither can tell whether he’s in or out. Because there’s no sign of the paddle floating, Roger figures he’s still in the boat, still doing something, but his lungs have got to be bursting, and moments later he’s washed into the next hole. If he’s not connected to his boat, the only thing he can do is ride it out and hope the boat gets flushed out and he gets another breath. With almost a minutes gone by, there is still hope, but what hope there is has to do more with the whim of the river than anything he can do with the boat.”).

³⁵BILL GUTMAN & SHAWN FREDERICK, *BEING EXTREME* (2002), at 53 (hereinafter Gutman) (BASE jumping involves parachuting from fixed objects such as (B)buildings, (A)antennas or towers, (S)spans or bridges, or (E)earth, cliff or other natural formations).

³⁶ GUTMAN, *supra* note 35, at 279 (“There will continue to be injuries as well as some fatalities. The nature of the sports dictate that. But since a major part of forging an extreme lifestyle is conquering and controlling fear, it stands to reason that neither injuries nor the possibility of death will stop people in the future just as they haven’t stopped people in the past or those who are active in the sports today. For these people, the rewards of pursuing their sport, being one with nature and the environment, challenging themselves to push higher, faster, and farther, and living a lifestyle that is far from the so-called norm, are worth any risk that might appear on the horizon. Extreme athletes are skilled, intelligent, courageous, and different. What they do often shocks people unfamiliar with their sports and their lifestyles. Yes, they spend a great part of their lives on the edge, and for that call them

Kayaking can definitely be one of those “look, ma” sports which seemed to blossom with the advent of hand-held camcorders and the ESPN secondary channels. There are innumerable photographs and film documentaries of kayak plunges over waterfalls, down maelstroms, and even underground.³⁷ Kayaking, however, need not be an extreme, high-risk sport; there exist safe harbors well within the limits of choice and capability where one can explore the balance and rhythm of the sport without unnecessarily provoking danger. For many, however the ultimate thrill, even when the camera is off, is maintaining form on the razor’s edge where a break in the technique, a lapse in concentration, the coordination-robbing vice of fear, or the intrusion of an unforeseen variable can lead to serious injury or even death.

Should the law, rather than the individual draw the line or make the accommodation? Should statutes or common law liability govern the level of risk that one can choose to encounter? The argument of policymakers and efficiency experts might stress rescue costs, medical expenditures, the possible absence of informed choice, and the safety standards of an evolving, moral society. But, of course, there are counter-arguments here. It might be contended that insurance, waivers, and warnings can isolate and illuminate much of the potential danger and still preserve the personal freedoms of choice which are, along with efficiency, among the standards and value predicates of the law.³⁸

In the case of man-made keeper hydraulics, like those of the low-head dam, there is precedent for legally mandated warnings by the entity that owns the low-head dam or the stream bed upon which it rests.³⁹ Some

adventurous, extreme, radical, or thrill seeking-but they are the very best at what they have chosen to be.”).

³⁷ See National Geographic Adventure, http://www.nationalgeographic.com/adventure/0003/q_n_a.html (last visited June 14, 2006) (Tao Berman, was filmed paddling his kayak over a 98 foot waterfall in Banff National Park, on August 23, 1999. Berman’s plunge is a world record – at least for survivors.); Info Niagara, <http://www.infoniagara.com/other/daredevils/jesse.html> (last visited on June 14, 2006) (There are several higher plunges that resulted in fatalities. One of the most noteworthy was an attempt by Jessie W. Sharp, on June 5, 1990, to kayak over the brink of Niagara Falls. “Three people who accompanied Sharp to Niagara Falls to video-tape his trip told police that Mr. Sharp had been planning the trip for years. They also told police that Sharp was attempting to go over the Falls in the kayak to advance his career in stunting. Sharp did not wear a protective helmet so his face would be visible on film. He also didn’t wish to wear a life jacket, believing it would interfere with his ability to escape in the event that he was caught underneath the Falls. After “shooting the Falls,” he intended to continue down the river through the rapids to Lewiston, New York. He had made dinner reservations there. His body has never been recovered.”); See Canoeing and Kayaking on Belize, Central America at http://www.peacecorner.org/canoeing_and_kayaking.htm (last visited June 14, 2006) (Belize, Central America has guided trips for kayakers on underground rivers).

³⁸ See AMITAI ETZIONI, HOW PATRIOTIC IS THE PATRIOT ACT? 1 (2004) (“There is room for much deliberation as to exactly what must be done and whether there is a need for some limited trade-offs. But the starting point for such an assessment is that we are committed to being both free and secure.”).

³⁹ See A. DAN TARLOCK, LAW OF WATER RIGHTS AND RESOURCES, 8-2 to 8-16.1 (2004) (If water in a stream is considered navigable for title, then bed ownership passes to the state at the time of statehood. Navigability for title, a federal test, asks whether the waters were used or capable of being

jurisdictions compel this warning by statute,⁴⁰ while others recognize a common law tort liability for a failure to warn.⁴¹ Common law liability for governmental entities, while significantly narrowed by state recreational use statutes⁴² and sovereign immunity,⁴³ still remains a possibility if the failure to warn is considered a non-discretionary function, and if the failure transcends ordinary negligence.⁴⁴

The tendency of the reckless to ignore warnings (or even be enticed by them) and the potential liability for the failure to warn may lead a legislature or an administrator toward pre-emptive action and an outright

used for commerce in the ordinary mode at the time of statehood. If the water was not navigable for title, the federal government retained title to the bed and it passed to private owners as a facet of their riparian patents).

⁴⁰ See, e.g. 30 Penn. C.S.A. § 3510 (b)(1) (“The department shall compile and maintain a current list of existing dams on the waters of this Commonwealth that the department determines to be run-of-the-river type dams. Within three months of the effective date of this section, the department shall notify the permittees and owners of those run-of-the-river dams of the requirements of this section by certified letter. Within six months of receiving notification of the requirements of this section from the department, the permittees and owners of run-of-the-river dams shall comply with the requirements of this section to mark the areas above and below their dams and on the banks immediately adjacent to their dams during the time periods of the year required by the commission with signs and buoys of a design and content determined by the commission to warn the swimming, fishing, and boating public of the hazards posed by the dam.”).

⁴¹ See *Mandel v. United States*, 793 F.2d. 964, 968 (8th Cir. 1986) (held that National Park Service breached duty to patron by failing to warn of danger of submerged rocks).

⁴² See JASON ROBERTSON, WHAT ARE RECREATIONAL USE STATUTES?, American Whitewater, <http://www.americanwhitewater.org/archive/article/124/> (last visited June 15, 2006) (“‘Recreational Use Statute’ is a term given to legislation generally intended to promote public recreational use of privately owned land. The statute does this by granting landowners broad immunity from liability for personal injuries or property damage suffered by land users pursuing recreational activities on the owner’s land. The underlying policy of a Recreational Use Statute is that the public’s need for access to recreational land has outpaced the ability of local, state, and federal governments to provide such areas and that owners of large acreages of land should be encouraged to help meet this need... Recreational Use Statutes generally provide that a landowner does not owe, to one using his or her property for recreational purposes and without charge, either a duty of care to keep the property safe for entry or use, or a duty to give any warning of a dangerous condition, use, structure, or activity on their property. Under prior common law (law made by precedent), the landowner had different duties of care depending on whether a person was on the land as an invitee, licensee, or a trespasser. The greatest duty of care was owed to an invitee and no duty was owed to an unknown, adult trespasser. Under a Recreational Use Statute, recreational users are treated in the same manner as trespassers and thus the landowner owes them no duty of care. The protection of the statute is lost, however, if the landowner charges for the use of the land or if the landowner is guilty of malicious conduct.”); See e.g. *Jenkins v. Arkansas Power and Light*, 140 F.3d. 1161, 1163 (8th Cr. 1998) (Governmental entities can, in many jurisdictions, take advantage of the protections of the states’ recreational use statute).

⁴³ See, e.g. *Tippett v. United States*, 108 F.3d. 1197,1196 (10th Cir. 1997) (the United States maintained a defense to liability for failure to warn in the case of discretionary functions).

⁴⁴ See *Mandel, supra* note 41, at 963, 67-8, Ark.Stat. Ann. § 50-1106 (“...the discretionary function exception does not apply to governmental conduct that involves the execution of a previously adopted safety policy that is neither regulatory in nature nor in the nature of administrative decision-making grounded in social, economic, or political policy.” The court also stated that the “plaintiffs’ allegations raised a question of fact on the issue of willful or malicious conduct by the United States, which conduct would not be protected by the Arkansas Recreational Use Statute; *Mandel v. United States of America*, 545 F.Supp. 907, 913 (W.D.Ark.1982), Ark.Stat. Ann. §§ 50-1106 (The court had held that, “Although the Arkansas Recreational Use Statute limits a landowner’s liability, a landowner is still liable for “willful or malicious failure to guard or warn against a dangerous condition, use, structure, or activity.” The district court held therefore that *Mandel* must show that defendants knew or should have known of the dangerous condition and the probability of injury).

closure of the watercourse during times of perceived danger. Such closures may well be over-inclusive. Experts may feel that the conditions are well within their competence or, even, that that conditions are optimal. Highly skilled individuals may regard the closure as an arbitrary preclusion of an ultimate experience or expression. They may further regard such laws as edicts to be civilly disobeyed – or as merely obstacles, like fences, rocks, or branches, that must be surmounted in the quest for excitement and control at the edge.⁴⁵

The Sheriff of Eagle County, Colorado tried to close the Eagle River to anyone using tubes, rafts, or kayaks in the summer of 1979, after several heedless tubers met their demise in the icy snow-melt run-off wearing only t-shirts and bathing suits. Steve Boyd, a friend of the boatman's, felt that the closure was arbitrary with respect to the experienced kayakers who wore helmets, wet suits and life jackets, and who waited all year for the high waters of the early summer. Steve ran the Eagle in proud defiance, submitted to arrest, and took his case all the way to the Colorado Supreme Court where he was exonerated.⁴⁶

⁴⁵ See Allison Brooke Rubenstein, *The Whole World is Jumpable' Except The National Parks*, 8 Univ. Balt J. Env't'l Law 150 (2001) (hereinafter Rubenstein) ("BASE jumping is one of the latest extreme sports to captivate modern America. BASE is an acronym for buildings, antennas, spans, and environment. BASE jumpers plunge from these structures, freefalling for as long as possible, until releasing from their hands a "chute," which ultimately glides them to the ground. With the exception of New River Gorge in West Virginia, all national parks have banned this activity. As a result, numerous BASE jumpers have difficulty finding places where they can legally and safely jump. Despite the illegal nature of the activity, BASE jumping activists continue to jump from world-renown monuments or from various cliffs in national parks. BASE jumpers take risks with their lives and the law to protest the ban and for the thrill of adventure."); See also *United States v. Albers*, 136 F.3d. 670 (9th Cir. 1998) (discusses probable cause for the National Park Service to search vehicles and boats involved in illegal BASE jumping); John W. Ragsdale, *Greer Spring* 67 UMKC. L.Rev. 3 (1998) (River closures can be permanent, especially in cases where special values accompany the perception of danger. They may also be temporary in cases where an authorized administrator determines that present conditions are unacceptably dangerous. Jason Robertson wrote, "Unfortunately, our passion for the unknowable is not shared by many in society, and some individuals in positions of authority translate their personal fears for our well being into well-intentioned attempts at preventing us from approaching or enjoying these flooded or falling waters. For these people, our safety is best secured by denying access to the very areas we enjoy the most. For these people every drowning they see on Fox News or hear about from other sources is a testimony to the wisdom of their decision to bar or limit access on the river they manage."); *Behold a Pale Horse: A Review of Safety and Access*, American Whitewater, <http://www.americanwhitewater.org/content/Journal/show-page/issue/3/year/2002/page/21/> (last viewed February 1, 2007) (hereinafter, Robertson).

⁴⁶ See *People v. Boyd*, 642 P.2d. 1, 2 (Colo. 1982) (Actually, the case turned primarily on the failure of the legislature to criminalize the disobedience of a river closure order, rather than on the authority or competence of the administrator to judge river-running competence, Either way, Boyd boated on); See also, Robertson, supra note 45 ("Not long ago, in 1996, I witnessed Olympic canoer Davey Hearn getting tackled in the water by police and arrested for boating on the Potomac below Maryland's Great Falls. The water on that day was very high and an epic surf wave had formed over Brookmont Dam. Davey was surfing the wave when the police flagged him over to shore. On approaching the shore he was assaulted by police in front of TV cameras and the incident was broadcast on the evening news. The Park Police and other rescue officials argued that he had no business being on the water that day; Davey argued he was qualified to make that choice for himself, and the question went to court. The judge sided with Davey and threw out the case. While this was a victory for boaters,

Others have been less successful in the use of civil disobedience to forge exceptions to the closure laws. Most courts will probably hold that an arguably reasonable closure regulation will prevail over both the actuality of individual skill⁴⁷ and over the assertion of private rights in the public trust.⁴⁸ Finally, others have compromised their statements of rebellion and given momentum to broad closure authority by succumbing to the very hazard that the closure was designed to preclude.⁴⁹

One interesting variation of closure involves providing some official windows of opportunity. The New River Gorge Bridge, within the boundaries of the New River Gorge National River, is normally closed to BASE jumping by the National Park Service.⁵⁰ However, on Bridge Day, the third Saturday in October, BASE jumpers are all invited – for a price⁵¹ – to leap off an aluminum diving board affixed to the bridge and parachute almost 900 feet to the river below. Participation is wildly enthusiastic, injuries occur, and covert violations still continue on days other than Bridge Day.⁵² Such selective enforcement and tolerance of injury, conditioned on payment of hefty fees, is hypocritical and highlights the futility of closure as a technique for discouraging voluntary encounters with individualized risk.

the event revealed many of the safety prejudices we encounter on a regular basis at American Whitewater.”).

⁴⁷ See *United States v. Albers*, 226 F.3d. 989, 994-95 (9th Cir. 2000) (sustained conviction of BASE jumpers for jumping illegally and recklessly in a national park, despite a high degree of skill and preparation, and despite a lack of harm to the participants or public).

⁴⁸ See *State v. Oliver*, 727 A.2d. 491, 496 (N.J., 1999) (The right of the public to enjoy – and surf – the tidal waters of New Jersey did not preclude the government from enacting and enforcing reasonable closure regulations for the public safety).

⁴⁹ Eric Hansen, *Last Leap*, (2000), <http://outside.away.com/outside/magazine/200001/200001disp4.html>. (Jan Davis BASE jumped off El Capitan in Yosemite National Park to protest the ban. To the horror of on lookers, her chute never opened and she fell to her death. There was also the ironic circumstance of Frank Gambalie who made a protest jump off El Captain, landed safely but, in attempting to elude pursuing rangers, fell in the Merced River and drowned.)

⁵⁰ See Rubenstein, *supra* note 45, at 154-156, 169-170; See 36 C.F.R. § 2.17 (The National Park Service has administrative authority over the parks within fairly generous parameters. The Service has exercised its authority to ban BASE jumping, with one exception. The Park Service has barred BASE jumping: “...under its regulations governing aircraft and air delivery. The relevant provision prohibits “[d]elivering or retrieving a person or object by parachute, helicopter, or other airborne means, except in emergencies involving public safety or serious property loss, or pursuant to the terms and conditions of a permit.”). *United States v. Albers* 226 F.3d. 989, 992-993 (9th Cir. 2000); *United States v. Oxx* 127 F.3d. 1277, 1278 (10th Cir. 1997). The one exception is Bridge Day at the New River Gorge Bridge on the third Saturday of October. This concession was made, in part, because BASE jumping off the bridge had preceded the establishment of the National River. 226 F.3d. at 992, n.1.

⁵¹ See Bridge Day Information, *Parachuting Concerns with NPS at Bridge Day*, http://www.bridgeday.info/bd05_concerns.php (last viewed June 16, 2006) (Jumpers pay \$75 and can jump at will for 6 hours. The jump organizers must pay a landing zone fee and travel expenses for additional rangers)

⁵² See *supra*, note 67, *Past Problems at New River* (Rangers at the New River Gorge National River have made more arrests for illegal BASE jumping than occur in any other National Park. Rangers conducting sting operations may pose as fishermen, video tape the descending scofflaws and then pull guns on them when they land. Jumpers feel this is “serious discrimination and persecution of jumpers by the NPS.”).

Finally, there are the options of physical modification and replacement, which may well deal with specific risks but which may raise some philosophical concerns. Certain places with dangerous hydraulics may be modified to lessen or eliminate the possibilities of entrapment. The lip or the face angle of a low-head dam might, for example, be modified to lessen the recirculatory effect. Specifically, the face angle might be flattened to create a broader, flowing trough, or the ends of the dam might be breached to create exit points. Indeed, such transformations might also be feasible with respect to natural formations like the Wakarusa Wave.⁵³ Modification might also be achieved by the control of water releases that could assure a less problematic level.⁵⁴ The efficacy of this approach depends on the capacity of the upstream storage, the timing of releases, the dissemination of information, and the availability of water rights.⁵⁵

It is noteworthy that technology and engineering can also create hydraulics. Most instances are unintentional. In Colorado, where the roads and rail lines run alongside the rivers, one can find numerous rapids – such as Pine Creek in the Arkansas or Kayaker’s Nightmare on the Colorado in Glenwood Canyon – whose notoriety stems in large part from channels that

⁵³ Robertson, *supra* note 45; Kansas Whitewater, <http://www.kansaswhitewater.org/projects/> (The Kansas Whitewater Association currently has a “Waka Project” which will alter the ledge and access. Some authors have feared that modifications might increase the possibility of liability. “...a lawyer from Pennsylvania’s Department of Conservation and Natural Resources told Walbridge that the state was wary of modifying the river because of liability concerns. She explained that people could not sue the state for what happened on a natural river, but a rapid, once modified, could expose the state to lawsuits. Again, the original recommendation was of dubious merit and would have been costly.”); Kans. Stat. Ann. § 58-3203 Limited Liability of Property Owners; Owner’s Duty of Care (These concerns would not appear to be relevant to Kansas, under its Recreational Use Statute which states:

“Except as specifically recognized by or provided in K.S.A. 58-3206 and amendments thereto, an owner of land who makes all or any part of the land available to the public for recreational purposes owes no duty of care to keep the premises, or that part of the premises so made available, safe for entry or use by others for recreational purposes, or to give any warning of a dangerous condition, use, structure or activity on such premises to persons entering for such purposes. An owner of land who does take actions to keep the premises safe or to warn persons of a dangerous condition, use, structure or activity on the premises shall not be deprived of the protection which this law would provide had the owner not taken such actions or given such warning.”).

⁵⁴ See *Wakarusa Wavepark Project*, Kansas Whitewater, *supra* note 53 (“Currently the wave is only usable at 700 to 1,000 c.f.s. and require sometimes special changes to get these releases. Because of this KWA is seeking to alter the angle of the wave to provide safe playing conditions from 250 c.f.s. up to as high as they release. This will reduce special requests to the Corps of Engineers and also provide many more days a year to enjoy this feature and at different releases.”).

⁵⁵ See Kans. Stat. Ann. § 82a – 703a (Kansas, as a prior appropriation state, can reserve water for instream flow purposes. Such reservations are, however, subject to rights vested before 1984); See Kans. Stat. Ann. § 82a – 703b (a) In addition to any other limitation or condition prescribed by law or rule and regulation of the chief engineer, it shall be an express condition of each and ever appropriation right, except for use of water for domestic purposes, applied for after April 12, 1984, that such right shall be subject to any minimum desirable streamflow requirements identified and established pursuant to law on or before July 1, 1990, for the source of water supply to which such right applies. (b) All vested rights, water appropriation rights and applications for permits to appropriate water having a priority date on or before April 12, 1984, shall not be subject to any minimum desirable streamflow requirements established pursuant to law.); See also Cynthia F. Covell, *A Survey of Instream Flow Programs in the Western United States*, 1 University of Denver Water L.J. 177, 186 (1998).

were narrowed and boulder-choked by transportation projects.⁵⁶ The boatman had indeed explored some byproduct hydraulics in the vicinity of the Wakarusa Wave – the class IV rapids on the Kaw River formed by a water plants' rock dam and a sharp drop on Mill Creek.⁵⁷

The hydraulic created may be intentional. Whitewater parks in urban areas are becoming increasingly common and successful recreational amenities.⁵⁸ The creative use of statutes,⁵⁹ the common law of water,⁶⁰ and the deployment of rocks, concrete, and channelization can transform a stream without useable whitewater into a park with linked, friendly hydraulics.⁶¹

The future may include the wholly synthetic water park, inspired in part by the artificial kayak course constructed at the 1972 Munich Olympics, which featured a concrete channel and closeable gates.⁶² These enabled instant dewatering and the retrieval of unsuccessful contestants. Schlitterbahn Water Parks, complete with wave pools, slides, and whitewater runs, have been successful in several major cities, and one is due to open in Kansas in the near future.⁶³

These operations go well beyond the kayak parks built by modifying existent streams as they may involve artificial water sources and gradients, as well as contours. There is the possibility of year-round, indoor kayaking and surfing for a price, without danger, and with a full range

⁵⁶ See Western Whitewater, *supra* note 27, at 159, 181.

⁵⁷ See Kansas Whitewater, <http://www.eddyflower.com/RunDetail.aspx?RunId=76> (hereinafter Kansas Whitewater).

⁵⁸ See Rebecca Abeln, *Instream Flows, Recreations as a Beneficial Use, and the Public Interest in Colorado Water Law*, 8 Univ. of Denver Water Law Rev. 517, 519-20 (2005) (hereinafter Abeln).

⁵⁹ See Covell, *supra* note 55.

⁶⁰ *City of Thornton v. City of Fort Collins*, 830 P.2d. 915, 930 (Colo. 1992) (A court favorable to the concept of in-stream recreation may be willing to stretch or retrofit the common law of prior appropriation in order to recognize non-consumptive water uses. The court held that controlling the flow of water for recreational boating purposes was tantamount to a diversion of water for a beneficial use, as required by the state's law of prior appropriation) See also Abeln, *supra* note 58, at 522-23.

⁶¹ Platte River Parkway, *Whitewater Park*, <http://www.platteriverparkway.org/whitewater.htm> (last visited June 16, 2006) (For example, the City of Casper, Wyoming has transformed a basically sedentary stretch of the North Platte River into an exciting white water park. "In May 2003 the Platte River Parkway Trust inaugurated the Casper Whitewater Park, Wyoming's premier man made whitewater facility. The Casper Whitewater Park is a one half mile stretch of the North Platte River with four man made rock structures that create turbulent water for recreation. It is located parallel to First Street just west of Poplar Street and is designed for supervised beginner and intermediate boaters at normal water flows between 500 and 3000 cubic feet per second. Normal summertime water flow is just over 3000 cfs from June through September... On any given day in the summer one can expect to see people using the Casper Whitewater Park to kayak, canoe and float although the facility is also a great place for fishing as the rock structures create wonderful nooks and crannies for fish. The Park also draws picnickers, and those who just enjoy the sounds and sights created by the whitewater features.").

⁶² See Mississippi Whitewater Park Development Corporation, *Whitewater Parks Worldwide*, http://www.whitewaterpark.canoe-kayak.org/whitewater_parks_worldwide.html (last visited June 16, 2006).

⁶³ See www.schlitterbahn.com (last visited June 16, 2006).

of creature comforts, such as food, locker rooms, instructors, temperature control, video replays, and tanning beds. The possibility of a wholly artificial whitewater experience may be satisfying in a number of respects but perhaps unsettling in others. Who can deny the efficiency, the conformity, the regularity, the cleanliness, and the safety of such operations? The physical relationship between moving water, boat design, and personal skill can be duplicated and provided on a tightly controlled basis. Is there a cost or a downside? Lawrence Tribe would suggest that there is.

In a classic article,⁶⁴ Tribe describes plastic trees used in Los Angeles as substitutes for real ones – superior in terms of efficiency and service and acceptable emotionally, at least after time. The losses of real concern to Tribe are those of connection to the natural, of continuity with the past, of community with the people and with the non-human world, of coherence and meaning, and of obligation. He wrote:

“What has been omitted is, at base, an appreciation of an ancient and inescapable paradox: We can be truly free to pursue our ends only if we act out of obligation, the seeming antithesis of freedom. To be free is not simply to follow our ever-changing wants wherever they might lead. To be free is to choose what we shall want, what we shall value, and therefore what we shall be. But to make such choices without losing the thread of continuity that integrates us over time and imparts a sense of our wholeness in history, we must be able to reason about what to choose in terms of commitments we have made to bodies of principle which we perceive as external to our choices and by which we feel bound, bodies of principle that can define a coherent and integrative system even as they evolve with our changing selves.”⁶⁵

Perhaps the substitution of plastic trees, the transformation of the Wakarusa Wave, or the artificial water park may seem reeds too slight on which to build or test a philosophy of meaning and obligation. However, in the cumulative response to simple incidents can be the assemblage and test of a worldview. The boatman’s reverie moved from the wave to existence itself.

⁶⁴ Lawrence H. Tribe, *Ways Not to Think About Plastic Trees: New Foundations For Environmental Law* 83 Yale L.J. 1315 (1974).

⁶⁵ Id at 1326-1327.

V. CONCLUSION: EFFICIENCY, RECIPROCITY, AND THE WAKARUSA WAVE

When attempting to solve problems or answer questions or, more broadly, when trying to make a theory or philosophy for life and law, there is a tendency to start in the middle of things and tie the anchor point to the immediate. This may be an application of the rock-to-rock, bend-to-bend analogy presented earlier.⁶⁶ It may be a practical, understandable way of focusing energy and attention, of quieting dissonance, or of surviving. However, as a pragmatic approach, it has a substantial qualifier. If rock-to-rock becomes a philosophy or a life-way, a universalization of the zen game of running with quiet mind and unconscious precision from rock-to-rock on the riverbank, it bears the inherent risk that the runner will encounter a sudden absence of rocks or deeper water, and, unable to stop, will overrun into disaster.

From a philosophical perspective, there is the hazard that ungrounded hypotheses and theorems are inherently transitory and ultimately meaningless. Is it possible, then, in the philosophical sense, as well as the practical, to have a preliminary sense of the whole – a guide so as to know when to run freely from rock-to-rock and when to slow, make revision, and seek quiet balance or a new direction? We can try.

We can, as a prelude, attempt an overview of the human condition. Each person is born, involuntarily and in ignorance, and each will die after a grudgingly brief interval. Underequipped with short-range senses and minds unalterably keyed to the perception of time, dimension, and cause-and-effect, humans can discern life, death, and finiteness but are structurally unable to explain or comprehend infinity, eternity, origins, or nothingness after life. People may cling to the hope that life is not finite, that one can live forever, and that we can seize eternity even if we cannot grasp it, but this seems the domain of religious faith, not reason. Even though some physicists persist in a hubristic attempt to scientifically know the mind of God and escape mortality with reason,⁶⁷ others accept that death is inevitable and the universe unknowable.⁶⁸

Our preliminary overview seems to kill the game. If we are forced by our finite nature to operate without hope of final knowledge or understanding, we might seem forced to operate rock-to-rock without anchors, direction, or ultimate significance. We might seem free to

⁶⁶ See *supra* note 4.

⁶⁷ See HAWKING, *supra* note 16; see also KAKU, *supra* note 18, at 361 (“We are making the historic transition from being passive observers to the dance of nature to becoming choreographers of the dance of nature, with the ability to manipulate life, matter and intelligence.”).

⁶⁸ See ALGENY, *supra* notes 5, 17.

embrace either unreasoning faith that replaces a personal responsibility or worldly cynicism that views license as complete.⁶⁹

Let us not quit just yet. Let us persist with an effort to find a reasoned basis for appropriate action, a basis that transcends immediacy, reaction, despair, or indulgence. If we have gained respite from the panic that accompanies awareness of freedom and finiteness against the sweep of infinity,⁷⁰ we may still make observations and conclusions that can ground our actions, laws, and institutions somewhere between infinity and the immediate.

With our best available observations, which stretch the boundaries of the finite and chart the terrain from deepest space to the subatomic, we can discern some fundamental, recurring, omnipresent patterns. Two of these are rhythm and balance. All observable existence exhibits the regular recurrence of rhythm and the patterned, homeostatic tendency to balance and rebalance.⁷¹ From the expansion and contraction of universes to the flow of photons as waves and particles, from the pairing and alternating of day and night, heat and cold, summer and winter, and from the cycles of life, death, love, hate, order and chaos, we can discern matter and energy in a timeless, never-ending balancing and rebalancing along a rhythmic path.⁷²

Across the broad course of human history, we can discern a cross-cultural observance and fundamental embracement of these natural flows of rhythm and balance – at least until the end of the 18th century. American Indian societies were oriented, economically, socially, and ceremonially, around the concept and process of reciprocity.⁷³ The balance and rhythm between giving and receiving forged a stable community among the people

⁶⁹ See FYODOR DOSTOEVSKY, *THE BROTHER'S KARAMAZOV*, 297-317 (Andrew R. MacAndrew trans., Bantam 1972) (1880).

⁷⁰ *Id.* at 306 (“...man has no more pressing, agonizing need than the need to find someone to whom he can hand over as quickly as possible the gift of freedom with which the poor wretch comes into the world.”).

⁷¹ See John W. Ragsdale Jr., *The Natural Law of Rhythm and Equality*, 58 UMKC L.Rev. 375, 381-84 (1990).

⁷² See CAPRA, *supra* note 3, at 194 (“Modern physics, then, pictures matter not at all as passive and inert, but as being in a continuous dancing and vibrating motion whose rhythmic patterns are determined by the molecular, atomic and nuclear structures. This is also the way in which the Eastern mystics see the material world. They all emphasize that the universe has to be grasped dynamically, as it moves, vibrates and dances; that nature is not in a static, but a dynamic equilibrium... In physics, we recognize the dynamic nature of the universe not only when we go to small dimensions – to the world of atoms and nuclei – but also when we turn to large dimensions – to the world of stars and galaxies. Through our powerful telescopes we observe a universe in ceaseless motion. Rotating clouds of hydrogen gas contract to form stars, heating up in the process until they become burning fires in the sky. When they have reached that stage, they still continue to rotate, some of them ejecting material into space which spirals outwards and condenses into planets circling around the star. Eventually, after millions of years, when most of its hydrogen fuel is used up, a star expands, and then contracts again in the final gravitational collapse.”; See also ALAN WATTS, *TAO: THE WATERCOURSE WAY*, 25 (Pantheon Books 1975) (hereinafter WATTS) (“Thus, the yin-yang principle is that the somethings and the nothings, the ons and the offs, the solids and the spaces, as well as the wakings and the sleepings, and the alterations of existing and not existing are mutually necessary.”).

⁷³ See *supra*, note 8.

and with the land.⁷⁴ The Deistic and Transcendentalist traditions of the 18th and early 19th centuries held that God's existence was revealed in the ordered patterns of the natural world.⁷⁵ Aldo Leopold restated this as an environmental ethic when he wrote, "A thing is right when it tends to preserve the integrity, stability, and beauty of biotic community. It is wrong when it tends otherwise."⁷⁶ Finally, the Tao presents the image and model of the Watercourse Way where people and societies seek balance, peace, and enlightenment by moving with quiet minds within the rhythms and flows of the universe.⁷⁷

For most of history and prehistory and certainly prior to the Industrial Revolution, societies, composed largely of hunters, gatherers, and agriculturalists, lived within the rhythms and flows of the sun, weather, flora, and fauna. They sought balance and subsistence and, by necessity, maintained flexibility.⁷⁸ However, with the advent of the industrial era – technology, capital, energy from fossil fuels, division of labor, and sociopolitical hierarchy⁷⁹ – the central focus of many societies began to change. Instead of balance, rhythm, flexibility, and the egalitarian community between people and their environment, the focus became growth and bigness.⁸⁰

The road of growth had plenty of seductive allure. Speed, profit, wealth, prestige, power, control, domination, and hubris were the constituent benefits of growth, while responsibilities and obligations were attenuated because the growth proponents promised that greed and pure

⁷⁴ See *supra* note 13.

⁷⁵ See Charles J. Meyers, *An Introduction to Environmental Thought: Some Sources and Some Criticisms*, 50 Ind. L.J. 426, 432-33 (1975).

⁷⁶ ALDO LEOPOLD, *A SAND COUNTY ALMANAC*, 262 (1966).

⁷⁷ WATTS, *supra* note 72, at 44 ("Because of the mutual interdependence of all things, they will harmonize if left alone and not forced into conformity with some arbitrary, artificial and abstract notions of order...").

⁷⁸ See HUGHES, *supra* note 11, at 5 ("For the Indians, living in careful balance with the natural environment was necessary to survival, since they lived so close to it and depended on it so completely. If they made serious mistakes in their treatment of nature, they felt the results right away; that is, they got immediate feedback. If they acted in ways that would destroy the balance of the natural communities where they found their food, clothing and shelter, then those communities would not provide for their needs any longer. Indians did not see this relationship as working in purely economic ways. Their actions were guided on every side by their view that nature is composed of a host of spirit persons who can talk to human beings and respond in a number of ways to the treatment they receive, they knew they had to be careful with those beings who shared the world with them because their lives were closely interlocked with them and they had to depend on them. And every part of their lives was involved in the relationship with nature.").

⁷⁹ See WILLIAM OPHULS, *ECOLOGY AND THE POLITICS OF SCARCITY*, 142-64 (W.H. Freeman & Co. 1997).

⁸⁰ *Id.* at 185 ("Growth is still central to American politics. In fact, it matters more than ever, for the older social restraints—the Protestant ethic, deference, isolation—have all been swept away. Growth is the secular religion of American society, providing a social goal, a basis for political solidarity, and a source of individual motivation; the pursuit of happiness has come to be defined almost exclusively in material terms, and the entire society—individuals, enterprises, the government itself—has an enormous vested interest in the continuation of growth.").

self-interest were positives and would be correlated by an invisible hand into the greatest good for the greatest number in the society.⁸¹ When the values of the people shifted from the attainment of rhythm, balance, and stability to the ongoing pursuit of growth in the context of free market competition, the law and institutions followed.⁸² Law, contrary to the thinking and hopes of many, does not and cannot lead an unwilling society; law is at most a mirror.⁸³ Thus, the constellation of growth values – speed, profit, efficiency, wealth, self-interest, and individualism – was incorporated in the societies’ economics, constitutions, laws, politics, physical structure, life-ways, and religion.⁸⁴

Rhythm, balance, and stability were marginalized as the players sought to manipulate, control, and subjugate the environment. Land was treated as a commodity instead of a partner, an object instead of an end.⁸⁵ Power was held as an unconditional absolute and for discrete gain rather than in trust and bounded by responsibility and obligation.⁸⁶ The relations of a person to other people as well as the land became competitive, or contractual rather than reciprocating, altruistic, or communitarian.⁸⁷

However, the gaudy growth engine came at a price, and the bargain proved Faustian. The decision to follow growth rather than adhere to rhythm and balance, like a decision to heighten speed and power with drugs, is an inherently unstable, unstoppable choice – even when barriers on the tracks became obvious. The Tragedy of the Commons, the inevitable, inexorable, and terminal accompaniment to unrestrained growth,

⁸¹ *Id.* at 168.

⁸² *Id.* at 184 (“American politics has been but a reflection of its laissez-faire economic system.”); See generally, John W. Ragsdale Jr., *Ecology, Growth and Law*, 16 Cal. West. L.Rev. 214 (1980) (hereinafter, *Ecology, Growth and Law*).

⁸³ See GRANT GILMORE, *THE AGES OF AMERICAN LAW* 109-11 (1977) (“The function of law...is to provide a mechanism for the settlement of disputes in the light of broadly conceived principles on whose soundness...this is a general consensus among us.... Law reflects but in no sense determines the moral worth of a society.”).

⁸⁴ See *Ecology Growth and Law*, *supra* note 82, at 223 (“... the economic system, the physical infrastructure, the decision – making process, the Constitution, the legislative process and politics have, historically, institutionalized a predominant growth emphasis.”).

⁸⁵ JOSEPH M. PETULLA, *AMERICAN ENVIRONMENTAL HISTORY*, 9, 11 (1977) (“...American exploitive attitudes were derived from the special historical situations. Natural resources were available for the taking; social status came from rapid material advancement and affluence; economic opportunity encouraged risk and the plunder of nature; national policy opened increasingly larger areas of land and subsequent markets; technologies to exploit and more resources followed the need; and the ‘good life’ and economic security seemed to require an ever-increasing rate of resource exploitation.”).

⁸⁶ See John W. Ragsdale Jr., *Altruistic Communities and the Responsible Use of Legal Power*, 60 *UMKC L.Rev.* 497, 505 (1992).

⁸⁷ *Id.* at 504-508; See also COLLIER, *supra* note 13, at 13 (“The ‘free market’ and laissez-faire doctrines and practices viewed the human world as on aggregation of person – individuals – each of whom was controlled by a universal, and therefore interchangeable, rational or calculating economic self-interest. The law of the free market was considered to be the law of human life. The free market was lord of all; and if it wrought havoc upon societies, heritages, ethical and esthetic values, family and community life, and even the natural resources of earth itself, it remained the overriding principle.”).

is one of those barriers.⁸⁸ The tragedy is that individualized competition, for unowned or unregulated resources, will destroy them despite the awareness or even the desires of the contestants.⁸⁹ The tragedy unfolded in a myriad of underprotected commons as the growth societies roared into the 21st century, consuming the air, soil, water, minerals, and environmental margins – the very loom upon which the tapestry of life was woven. The people wailed in despair but, addicted, wanted the growth anyway, and the underpowered laws were thus unable, or unwilling to slow the engine, let alone stop or redirect it. The more subtle but nonetheless real loss was one of personal meaning and connection. Man apart⁹⁰ became man alone, and the meaning inextricable in balanced, rhythmic reciprocity was replaced by the isolated, absurd dichotomy of self-love, and self-mutilation.

⁸⁸ Garrett Hardin, *The Tragedy of the Commons*, 162 *Science* 1243-1248 (1968), available at <http://dieoff.org/page95.htm> (last visited June 18, 2006) (hereinafter Hardin).

⁸⁹ See Hardin, *supra* note 104 (“The tragedy of the commons develops in this way. Picture a pasture open to all. It is to be expected that each herdsman will try to keep as many cattle as possible on the commons. Such an arrangement may work reasonably satisfactorily for centuries because tribal wars, poaching, and disease keep the numbers of both man and beast well below the carrying capacity of the land. Finally, however, comes the day of reckoning, that is, the day when the long-desired goal of social stability becomes a reality. At this point, the inherent logic of the commons remorselessly generates tragedy. As a rational being, each herdsman seeks to maximize his gain. Explicitly or implicitly, more or less consciously, he asks, “What is the utility *to me* of adding one more animal to my herd?” This utility has one negative and one positive component. 1. The positive component is a function of the increment of one animal. Since the herdsman receives all the proceeds from the sale of the additional animal, the positive utility is nearly +1. 2. The negative component is a function of the additional overgrazing created by one more animal. Since, however, the effects of overgrazing are shared by all the herdsmen, the negative utility for any particular decision making herdsman is only a fraction of -1. Adding together the component partial utilities, the rational herdsman concludes that the only sensible course for him to pursue is to add another animal to his herd. And another... But this is the conclusion reached by and each and every rational herdsman sharing a commons. Therein is the tragedy. Each man is locked into a system that compels him to increase his herd without limit—in a world that is limited. Ruin is the destination toward which all men rush, each pursuing his own best interest in a society that believes in the freedom of the commons. Freedom in a commons brings ruin to all... The long-term disadvantage of an appeal to conscience should be enough to condemn it; but it has serious short-term disadvantages as well. If we ask a man who is exploiting a commons to desist “in the name of conscience,” what are we saying to him? What does he hear? – not only at the moment but also in the wee small hours of the night when, half asleep, he remembers not merely the words we used but also the nonverbal communication cues we gave him unawares? Sooner or later, consciously or subconsciously, he senses that he has received two communications, and that they are contradictory: 1. (intended communication) “If you don’t do as we ask, we will openly condemn you for not acting like a responsible citizen”; 2. (the unintended communication) “If you *do* behave as we ask, we will secretly condemn you for a simpleton who can be shamed into standing aside while the rest of us exploit the commons.”).

⁹⁰ See ROBINSON JEFFERS, *NOT MAN APART* 88 (1965) (“...They have done what never was done before. Not as a people takes a land to love it and be fed. A little, according to need and love, and again a little; sparing the country tribes, mixing their blood with theirs, their minds with all the rocks and rivers, their flesh with the soil; no, without hunger. Wasting the world and your own labor, without love possessing, not even your hands to the dirt but plows like blades of knives; heartless machines; houses of steel: using and despising the patient earth... Oh, as a rich man eats a forest for profit and a field for vanity, so you came west and raped the continent and brushed its people to death. Without need, the weak skirmishing hunters, and without mercy...”).

Phew! The boatman was a bit exhausted by the scope of this Chautauqua.⁹¹ Was this too much of a chainsaw to bring to bear on the slender twig of the Wakarusa Wave? This began, after all, as the rather minimalist query into whether to modify the wave for the pleasure and safety of boaters or replace it with a plastic substitute. The boatman, however, being a career academic, was somewhat inclined to over-generalize and over dramatize.

The boatman's focus returned to the sound, sight, and symmetry of the Wakarusa Wave. He found it a microcosmic essence of rhythm and balance, a product and embodiment of primary forces in the universe. Though the river itself, tightly controlled, was decidedly not pristine, the limestone ledge had held its configuration intact throughout its geological life. The wave, like the ledge, had a timeless pattern, even though the flow may have been changed and varied by the hands of humans. As a particular application of principle, then, the boatman would take the ledge and the wave the way time had shaped them – dangers included. He would adapt to the ledge and the wave rather than bend them to his will and for his safety. The ledge and the wave offered their essential rhythm and balance, and, reciprocally, they were owed respect and participation in return.⁹²

The boatman was, for all his philosophizing, a bit of a hypocrite – quite a bit, actually. He could pontificate about the tragic loss of the wild and the misuse of fossil fuels, but he never missed a chance to ski the back bowls of Vail or try the latest petroleum-based sports toys – skis, boots, kayaks, and sailboards. He would burn lots of gas in both processes. He might mourn the loss of balance in the abstract, but he was not prepared to deny himself the tainted fruits of the transformation. In fact, he applauded the building of golf courses and whitewater parks with contoured fairways and artificial hydraulics, which replaced nondistinctive fields or flatwater streams. Indeed, his preservation energies were primarily reserved for charismatic species and places, such as grizzly bears, national parks, wild rivers, and the Wakarusa Wave. And even there, as was evident in his confessed pragmatism, he was not inclined to embrace mourning and self-

⁹¹ See ROBERT M. PIRSIG, *ZEN AND THE ART OF MOTORCYCLE MAINTENANCE*, 7 (1981) (“What is in mind is a sort of Chautauqua—that’s the only name I can think of for it-like the traveling tent show Chautauquas that used to move across American, this America, the one that we are now in, the old time series of popular talks intended to edify and entertain, improve the mind and bring culture and enlightenment to the ears and thoughts of the hearer. The Chautauquas were pushed aside by faster-paced radio, movies and TV, and it seems to me the change was not entirely an improvement. Perhaps because of these changes the stream of national consciousness moves faster now, and is broader, but it seems to run less deep. The old channels cannot contain it and in its search for new ones there seems to be growing havoc and destruction along its banks. In this Chautauqua, I would like not to cut any new channels of consciousness but simply dig deeper into old ones that have become silted in with the debris of thoughts grown stale and platitudes too often repeated.”).

⁹² See PAUL DUTKY, *THE BOMBPROOF ROLL AND BEYOND* (1993) (hereinafter, DUTKY) (Somewhat more prosaically, it was noted earlier that some jurisdictions other than Kansas might recognize liability for accidents occurring on modified river courses).

sacrifice in the aftermath of a *fait accompli*. Should the boatman's concern for the integrity of the Wakarusa ledge and wave be compromised by the beaver-like efforts of the Kansas Whitewater Association to nibble away at the ledge and make it safe, or if Schlitterbahn replaced nature with an indoor, plastic, air conditioned, full-service, risk-free boating experience, the boatman was resolved to make the best of their products.

In a sense, he was adrift on another kind of river, a vast, fast-moving flood of technology and growth. He had few practical options. He might recognize the destruction of the environmental margins and acknowledge his own contributions to the problem. He might admire the sustainable life ways and assert them as necessary for enduring balance. But, powerless and virtually alone on the deluge, his voice, understandings, and wishes would be washed away without a trace. Faced with the futility of resistance, he was not prepared to be a martyr. He was not prepared to voluntarily and individually forgo the evolving technologies, even though they catered, cynically and relentlessly, to his whims and desires and not to his necessities. They could be, after all, a lot of fun.

The boatman sighed, despondent at the state of things and his own inconsistencies. But then he brightened. The internet water gauge for the Ozarks indicated that the recent rains, a respite from the encroaching global warming, had deluged southern Missouri, and Swan Creek was on the rise. He called his friends, got his boat out of the garage, put it on top of this four-wheel drive Toyota SUV, and headed for the highway.

In the last analysis, the boatman reflected on the wisdom of Yvon Chouinard, the famous climber, environmentalist, and founder of the fabulously successful Patagonia Clothing Company. In attempting to explain his contradictions as a sportsman, promoter of consumption, and fervent preservationist, Chouinard said:

“We’re an incredibly damaging species, and we’re pulling all these other beautiful species down with us, and maybe we ought to just get out of here. You do what you can. Then—even if you’re burning gasoline to get there—you just have to say f--- it, let’s go surfing.”⁹³

The virtuous hypocrite is one that does not deny the truth as it emerges, even if one lacks the courage or capacity to conform.

⁹³ See Craig Vetter, *He's not Worthy! A Portrait of a Millionaire at a Crux*, Outside Magazine (January 1997), <http://outside.away.com/outside/magazine/0197/9701fenot.html> (last visited June 18, 2006).