

The Enlightenment Rift and Peacebuilding: Rationality, Spirituality, and Shared Waters

by Aaron T. Wolf¹²

Background

Water management is, by definition, conflict management: water, unlike other scarce, consumable resources, is used to fuel *all* facets of society, from biologies to economies to aesthetics and spiritual practice. Moreover, it fluctuates wildly in space and time; its management is usually fragmented; and it is often subject to vague, arcane, and / or contradictory legal principles. As such, there is no such thing as managing water for a single purpose—*all* water management is multi-objective and based on navigating competing interests. Within a nation, these interests include domestic users, agriculturalists (including those in fishing), hydropower generators, recreators, and environmentalists—any two of which are regularly at odds, and the complexity of finding mutually acceptable solutions increases exponentially as more stakeholders are involved. Add international boundaries and the difficulty grows substantially yet again.

While press reports of international waters often focus on conflict, what has been more encouraging is that, throughout the world, water also induces cooperation, even in particularly hostile basins, and even as disputes rage over other issues. This has been true from the Jordan (Arabs and Israelis) to the Indus (Indians and Pakistanis) to the Kura-Araks (Georgians, Armenians, and Azeris). Despite research that finds repeatedly and empirically that water-related cooperation overwhelms conflict over the last 50 years (see, most recently, Wolf et al. 2003), prevailing theories fail to explain this phenomenon.

Here is a resource on which we all depend, which fluctuates wildly in space and time, and for which there is little guidance in international law. By any quantitative measure, water should be the most *conflictive* of resources, not an elixir that drives enemies to craft functioning and resilient institutional arrangements. (See Conca & Dabelko 2002; Carius et al. 2004; and Wolf et al. 2005 for complete discussions of the relationship between water and security.) Certainly, there is a long history of conflicts over, or related to, shared freshwater resources. But there is also a long, and in many ways deeper, history of water-related cooperation. *Why* do countries that share a basin cooperate on water, even when they will not cooperate over other issues?

¹ Address for correspondence: Department of Geosciences; 104 Wilkinson Hall; Oregon State University; Corvallis, OR 97331-5506, USA; Tel: +1-541-737-2722; Fax: +1-541-737-1200; email: wolfa@geo.oregonstate.edu

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Studies offer economic (e.g. Fisher et al. 2002), environmental (Ollila, et al. 2000), or strategic (Finger and Tamietti 2001) rationale to explain this “hydro-cooperation,” but none seems completely adequate. Prevailing wisdom in both the science and policy of water resources does not seem to provide the foundation to be able to answer this clearly ethical question. Perhaps some part of the answer lies not in the world of rationality, but rather in the spiritual, ethical, and moral dimensions of water conflict resolution. Incorporating these components may offer not only new understanding of current disputes, but also models, tools, and strategies for more effective water conflict management and transformation in the future.

This paper seeks to investigate the potential of integrating a spiritual understanding of water conflict transformation with currently prevailing economic, environmental, and strategic constructs. We begin by setting the context of current understanding of water conflict and cooperation, then by documenting the geography of what I call the Enlightenment Rift—the process by which the global North / West³ separated out the worlds of rationality from spirituality and the impact of this rift on ideas related to natural resources management. We continue with a discussion of the current clash of worldviews, as the North / West entwines its rational construct with the flow of international development capital and management philosophies, and the inevitable disconnect as these approaches collide with the more integrated views of the global South and East. We conclude with a section describing how the two worldviews might gently be interwoven, for example within a fairly universal construct of Four Worlds of perception, and how this construct might be employed within the framework of more effective water conflict management and transformation.

Reconnecting Process with Spirit

So how can the process from conflict to cooperation be enhanced? To begin our understanding, we might drop our scale of analysis from the macro to the micro. Along with describing global and regional trends from an abstract geopolitical perspective, there is also the process that occurs “in the room.” At the end of the day, negotiations are about people and relationships, not solely about geopolitics and economic interests, which begs the question: Are negotiations rational or is something more going on in the room, something connected more to energy and transformation?

To gain insight into these questions, it is worth looking at the values and philosophies inherent within the negotiating context, as we do in the next sections.

³ I acknowledge the wild over-generalization involved in dividing up the world between the global North/West and the South/East. This construct should be understood as infinitely more porous and ephemeral than dichotomous, but roughly follows the geography of Hall’s (1977) “high context” and “low context” cultures (critiqued though the model has been). In very general terms, the former includes Europe and much of the non-indigenous Americas, while the latter includes most of Asia, Africa, and the Middle East.

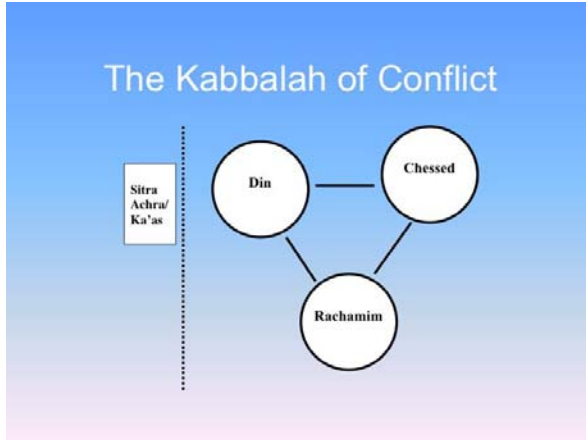
The Enlightenment Rift: When North / West Meets South / East

The Enlightenment of the eighteenth century left a profound rift between the worlds of spirit and of reason, one with intense implications for today's clash of ideas. In temporal terms, it suggested that day-to-day considerations should be gauged in rational, "objective" concepts, while the world's spiritual dimension should be considered separately, in the evening at home or within one's Friday, Saturday, or Sunday community (Martin 2007). Over time, "rationality" dictated the structure of subsequent paradigms, from economics to science to modernity, to where today we in the North / West are consistently satisfied to ask the "what" without the "why," at least in public discourse. We talk comfortably of economic growth rates, for example, without the accompanying discussion of what simply creating and owning more stuff does to our soul. We are able to put the emphasis in debates over crime disproportionately on the value of punishment and retribution, and less regularly on the potential for the individual and his or her community for rehabilitation (see, for example, O'Connor, et al. 2006). We regularly turn to benefit-cost analyses as a decision making tool, where all factors must be reduced to economic value, explicitly excluding often profound, but intangible, considerations.

The idea of separating out rationality from spirituality is a fundamentally North / West construct: As Smith (1992) eloquently puts it, "The modern West is the first society to view the physical world as a closed system" (p. 96), whereas much of the thinking in the Global South and East often retains its integration of rationality and spirituality. As models, consider Figure 1, for example, that shows frameworks from two different spiritual traditions that illustrate the idealized relationship between self and community, between justice and mercy, and between boundaries and expanse. Figure 1a models three of the ten Kabbalistic *sefirot*, or spheres of divine attributes (see Scholem 1965, Matt 1997, and Green 2004 for accessible introductions to Kabbalah). These three show a balance between *din*—the attribute of justice,⁴ boundaries, self—with the sefirah of *chessed*—the attribute of lovingkindness, concern for the other, mercy. Within this tradition, these two attributes remain in balance—one cannot exist without the other—but not quite. In this balance of divine attributes, the sefirah of *chessed*, lovingkindness, is always modeled just a touch higher, connoting that that attribute takes precedence in any conflict between the two. (Any parent understands this construct intuitively. Raise a child with justice alone, and the result will be an unfeeling bully. Raise him or her with only lovingkindness, and the child will become unbearably spoiled and self-centered. And, truth be told, when we're ever conflicted between which of the two approaches to take with our loved ones, we generally can't help but show some favor to mercy.)

⁴ "Justice" is meant here in the strict, bounded sense, and is not meant in the same vein as one might refer to a more holistic "restorative justice."

Figure 1a:



As the map of the sefirot shows, the balance of *din* (justice), with *chessed* (mercy), is manifested in the sefirah of *rahamim* (compassion). The attribute of *rahamim* is very explicit in what is meant by “compassion,” suggesting a precise integration of consideration for *both* justice and mercy, for self and community, for boundaries and expanse. The root of “*rahamim*” is the same as for *rehem*, womb, giving us a very clear allusion to what is meant: a mother is able to give not only nourishment, but her very life force to her unborn child (ultimate lovingkindness), but is able to do so *only* if she takes care of her own health and needs.

The message of the construct has relevance for many of the grand issues of the day. Do we pursue justice or mercy in our lives and politics? Shall we be concerned with individual rights or responsibility to one’s community? Modernity or post-modernity? Free market or safety nets? Right or left? Red or blue? The answer given by this understanding to all these choices is, “Yes, in exquisite balance.” The dichotomies are false, as is the apparent division between rationality and spirituality.

This balanced construct exists fairly universally and can influence quite a lot in respect to approaches to resource allocation, negotiations, and understanding of relationships. The unity of a balance of self and other, light and dark, can be seen in the *Taijitu*, the traditional Taoist symbol for *Yin* and *Yang* (figure 1.b). In a Christian construct, the triad of justice, lovingkindness, and compassion has been described through the Trinity of Father, Son, and Holy Spirit, and some Christian Kabbalists make these comparisons explicit. In Islam, *Al-Hakam*, the Judge, *Ar-Rahman*, the Merciful, and *Ar-Rahim*, the Compassionate, are the three common names of the 99 names of Allah, and Abou El Fadl (2004) describes Islamic processes for “institutionalizing mercy and compassion in social interaction.”

Figure 1b:



So, to generalize, the heavy (over-) emphasis on rationality and the rights of the individual—as opposed to inclusion of spirit and the needs of the community—is disproportionately a North / West phenomenon, associated primarily with the non-Asian developed world. The Global South and East often retain a more integrated view of issues of the individual with the community or one’s spirituality with one’s rationality. These two profoundly contradictory worldviews—the North’s / West’s dichotomous views of rationality and spirituality, justice and mercy, in stark contrast to the South’s / East’s holistic, integrated balance—clash regularly and intensely across the world stage, from foreign policies to expectations of immigrant communities to dynamics in the United Nations. In other fora, one might note the implication this geography has on the current “clash of civilizations,” but one can use water as a microcosm of these larger issues.

Water and the Economics of Cooperation

The geography of this post-enlightenment rift is, well, enlightening.

Figure 2 shows the flow of water-related foreign assistance, primarily from the developed to the developing worlds. What this figure illustrates is the extensive interface between very different value structures.

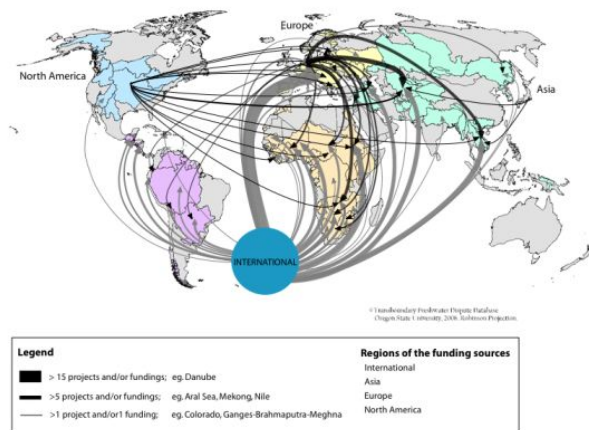


Figure 2: Sources of Funding for Water-Related Projects in International Basins

In recent decades, for example, the North / West has approached international water management from an increasingly economic framework, most notably through the 1992 Dublin Principles, that state “Water has an economic value in all its competing uses and should be recognized as an economic good” (ICWE, 1992, Guiding Principle No. 4). This was the first explicit recognition of water as an economic good, and this principle is often found quoted in literature that has ensued since its establishment. Agenda 21, which emanated from the Rio Conference on Environment & Development in June of 1992 echoed this theme, and the World Bank and other development banks have increasingly been urging conflict resolution through moving from thinking of water as a zero-sum commodity to negotiating over the *benefits* of water, a positive-sum commodity that can be enhanced and quantified through economic principles (see Delli Priscoli & Wolf 2008 for a history).

Yet, these economic principles, so prevalent in the North / West, and encouraged through the North/West-sponsored development agencies and banks, explicitly contradict local and indigenous practices throughout the developing world. For example, different Islamic legal tenets apply to different water sources, basically divided by whether the water is “provided by God” (i.e., a natural surface or groundwater source which is available year-round) or whether it is “provided by man” (i.e., human labor which creates a cistern or the attendant canal system). “God-given” waters may not be bought or sold, and their use is available to all equally.⁵ To many, the idea of buying and selling water is both

⁵ The famous first scene in *Lawrence of Arabia*, which seems to have shaded the perceptions of many vis a vis Middle East water tensions, in which a hapless traveler is shot for drinking from another’s well simply would not have happened. The well and its water would have been accessible to anyone.

repugnant (like “buying and selling one's children,” one interviewee suggested to me, quoted in Wolf 2000), and contrary to the tenets of Islam (Faruqui et al. 2001).

Healing Waters: Water Rights and Water Honor

Another interface for these clashing concepts and principles is in the realm of conflict management and transformation.

As noted above, approaches to the balance between the individual and the community can be thought of very differently in the North West as compared to the South/East. These views play out in approaches to legal principles and conflict resolution as well. The Western legal structure, for example, is very comfortable with the idea that one side in a dispute can be found entirely right and gain everything in a dispute, while another side is found entirely wrong and loses everything (O'Connor et al. 2006). In contrast, the balance of justice and mercy described above leads, in many communities of the South / East, to the importance of both retaining individual rights *and* honor on both sides of a dispute and to reconciliation of a wrong-doer within one's community. Consider the Arabic word *tarrahdhin*, for example, defined as, “resolution of a conflict that involves no humiliation,” a profound concept with no Western equivalent.

This is not a theoretical concept, but put in practice throughout the Muslim world, once a wrong has been committed, through the ceremony of a *sulha*, a ritual ceremony of forgiveness. The term comes from *musalaha*, reconciliation, which implies that hostilities are ended, honor re-established, and peace restored in the community (Jabbour 1996). This custom, which consists of private, often mediated, negotiation of redress between the affected parties, is followed by a public declaration of forgiveness and, usually, a festive meal.⁶ Once the *sulha* is performed, the slate is wiped clean, as if the dispute never happened. The agreement is legally binding on both the individuals and on the community. Grudges are dissuaded, and reference to past disputes may not be made to gain position in a current conflict (see Smith 1989, Jabbour 1996, and Irani 1999 for more detail).

The balance of rights and honor, of justice and mercy, and its contrast to the Western construct of justice, is described by Jabbour (1996):

This is how [social] justice should be achieved. The courts condemn the guilty party in vain, because they never take care of the harm. Magistrates and police don't know what social justice is. Honor is an alien virtue. They believe in the virtue of punishment, but forgiveness is overshadowed and neglected because peacemaking is not on their minds (Jabbour 1996, p. 116).

⁶ “The eating of a meal together, from ancient times, carries the strength of covenant and is a sign of reconciliation and the removing of barriers from between the participants” (Jabbour 1996, p. 56).

The international community seems to be lacking in just such a ritual ceremony of forgiveness. The negotiating process of many trans-boundary agreements is secret—at best, a televised signing ceremony may take place—and accord over an issue such as water, generally considered un-newsworthy, may take place without any public notice at all. A public ceremony would allow the community affected by a dispute—the stakeholders on all sides—to celebrate its resolution and thereby take ownership of seeing to its implementation.⁷

To be fair, the field now known as Alternative Dispute Resolution (ADR) came about precisely because of the limitations, and cost, of the Western legal framework. But for the most part, even ADR, as exemplified by Fisher and Ury (1981) and its offshoots (the potential of ADR in the context of international water resources conflicts can be found in Vlachos 1994; Bingham et al., 1994; Wolf, 2002; Shamir, 2003; and Delli Priscoli & Wolf 2008), is more often than not rooted in both rationality and / or economic constructs of interests and benefits. A claim by practitioners is that ADR works because the mediator can help parties construct agreements that meet the needs of the parties: people agree when it is in their interest to agree. Well, how does one know it was in the parties' interests to agree? The only proof is tautological: they agreed.

Spiritual Transformation and Lessons for Water Negotiations, or, Conflict, Cooperation, and Kabbalah

But *are* negotiations rational? Do we agree only when it is in our interest to agree? Or is something more going on in the room, especially when there is even the modicum of real emotion present, something connected more to energy and transformation? Successful multi-party negotiations require profound transformations in the way participants conceptualize the issues at hand. Those involved can often point to the precise moment when thinking altered dramatically—the “aha!” moment—where emphasis shifted from individuals thinking only in terms of their own agenda to also understanding the needs of the other. As noted above, traditional conflict resolution models define these moments in rational terms—“people come to agreement when it is in their interest to agree.” Even overlooking the tautological nature of this argument, “rationality” simply often does not hold sway if the conflict involves even a modicum of real emotion.

To really understand the process of transformation, and the settings most conducive to inducing these shifts, then, one may do well to look outside of the field of conflict resolution as defined in modern, academic terms. When one thinks of the situations most analogous to settings conducive to transformative thinking, the world of spiritual transformation rises as potentially the most appropriate. Every spiritual tradition in the world, after all, is devoted to precisely this process of transformation: to aid individuals

⁷ To some degree, this concept is being introduced to the international community. Irani (1999) describes a sulha which was carried out between the Christian and Muslim communities in Beirut. The interviewees in Smith (1989) argue that, while the problems between Israelis and Palestinians are too great to be dealt with in a simple ceremony, the principles of sulha, balancing rights with honor, might be applied.

in moving from a focus on their own immediate wants and desires to addressing more their obligations to society, humanity, and to the Divine.

Throughout the rich history of water conflict management, inducements to diverse stakeholders have centered on three sets of interests: economic inducements, environmental protection, and strategic interests. Each has met success over the years, yet each has its limitations, especially in particularly tense settings. Researchers have occasionally sought to bolster these traditional approaches with the experiences of other, seemingly peripheral, issues. Chalecki et al. (2002), for example, report on a workshop which brought together participants involved in international water management and those in international arms control agreements. The report suggests that common issues were found, and approaches exchanged, regarding political suspicion, incomplete data, and monitoring and enforcement of agreements. Ostrom (1992) has done remarkable work in tying small-scale, local experiences in water management with larger lessons and scales, and Wolf (2000) investigates the allocation rules and conflict resolution mechanisms of Berbers and Bedouin, drawing implications from their experiences for international waters.

Most research (and practice) of drawing together the worlds of spirit and water has focused on how religions address the environment and its protection. Much of this thinking has been documented by Mary Evelyn Tucker and John Grim of Bucknell University, who coordinated a ten-conference series on World Religions and Ecology at Harvard's Center for the Study of World Religions, and who are editing the conference papers from the series, with separate volumes describing relationships between each religion and the environment (summarized in Tucker and Grim, eds. 1993). Similarly, Palmer and Finlay (2003) provide an overview of religious approaches to the environment specifically as related to international development, and include statements on the topic from leaders in 11 of the world's religions.

Little in this field has been applied specifically to shared waters and issues of environmental conflict management, although some work describes the Catholic Church's leadership in promoting a religious obligation to protect the Columbia River watershed as an international basin (Burton-Christie 2003), and the Orthodox Patriarch recently planned a boat trip down the Danube with international invitees to promote protection of that basin (although the trip was subsequently cancelled (Lubchenco, pers. comm. 2004)).⁸

Yet the focus here is subtly but importantly different from that described above, in that the key is what spiritual and ethical *processes* of transformation can offer environmental negotiations and conflict management, not the overall framework in which each religious tradition approaches the environment as a whole. As such, the scope of each individual application is by necessity smaller—small groups of stakeholders at best—yet I would

⁸ Bartholomew I has been dubbed the "Green Patriarch" for his attention to environmental issues. See Chryssavgis, ed. (2003).

argue that the overall potential to effect change in thinking about the process of conflict management is vast.

Very little work has been done explicitly tying spiritual transformation to environmental negotiations and management, although what has been done suggests exciting potential. In February 2003, the Program on Negotiation at Harvard Law School launched The Harvard Negotiation Insight Initiative, specifically to offer mediators and stakeholders resources to “explore the interface of contemporary negotiation theory and practice with alternative frameworks including some drawn from perennial wisdom traditions” (Launching Document 2003). While the initial focus was in the realm of legal mediation within the U.S., the first workshop, held in June 2004, brought a variety of facilitators and mediators together for training, including a handful with environmental expertise (including the author of this paper). As the annual workshops have grown, the focus has broadened to all branches of mediation and negotiation.

Literature does exist suggesting the potential for applying the tools of spiritual / ethical process to conflict transformation, suggesting potential applications to environmental issues as well. Transformative Mediation, a relatively new branch of Alternative Dispute Resolution, offers an alternative to problem solving mediation (which can be highly directive and focused on short-term problem solving), based on “empowerment and mutual recognition of the parties involved,” as well as on their long-term interests (Burgess 1997). “Compassionate listening” is a faith-based technique of guided communication that has proved effective in extremely hostile settings, notably by Carol Hwoschinsky in guiding dialogue between Israelis and Palestinians who have been touched by violence (Hwoschinsky 2004). Rabbi Uzi Weingarten teaches similar techniques of “communicating with compassion,” which have been applied in a variety of hostile settings (Weingarten 2003). Abou El Fadl (2004) describes Islamic processes for “institutionalizing mercy and compassion in social interaction;” McConnell (1995) structures mediation in a Buddhist construct; and Barthel (2005) suggests lessons for process from a Baha’i perspective.

The Association for Conflict Resolution (ACR) now has a Spirituality Section, and the Fall 2005 issue of *AC Resolution*, ACR’s journal, focused on spirituality and the heart of conflict resolution. While most of that activity focuses on the mediator’s own spirituality (see Riskin 2002; Bowling 2005),⁹ or on mediation as a spiritual practice (see Cloke 2005; and Umbreit 2005), some work does draw directly from the spiritual world to facilitate the process of conflict resolution (notably Riskin 2004; Fox and Gafni 2005; and Cloke 2006).

Marc Gopin, director of the Center for World Religions, Diplomacy and Conflict Resolution at George Mason University, suggests the potential for conflict resolution’s learning from spiritual transformation (Gopin 2000):

⁹ As Eileen Barker, Chair of the ACR Spirituality Section asks in her introductory article, “How can we ‘be the peace’ we wish to create for others?” (Barker 2005).

One example [of the possibilities of merging study of religion and conflict resolution] is the spiritual process of transformation of character through reflection and ethical improvement of one's behavior. Several theories of conflict resolution suggest the importance of personal transformation for the resolution of deep conflicts. Spiritual programs of personal transformation might be combined with this kind of conflict resolution methodology in religious settings.... Could such phenomena be incorporated into conflict resolution strategies among religious peoples or even more generally?

Process and the Four Worlds

Thinking of negotiations less in terms of rational interests and more in terms of transforming energy allows us to center on the process of *transformation* in negotiations—the point at which parties move from thinking of themselves as representing countries or political bodies to perceiving more broadly the needs of all stakeholders within a basin. These are critical junctures in negotiations, where movement from “rights-based” to “needs-based” to “interest-based” to “equity-based” negotiations suddenly becomes possible. In international basins, as noted above, this transformation may normally take years or even decades, during which time political tensions are exacerbated, ecosystems go unprotected, and water is generally managed, at best, inefficiently. This negotiation transformation may, however, have a corollary in spiritual transformation. Every spiritual tradition in the world is devoted to a very similar process, that is to guide individuals from thinking about their needs as individuals—their immediate wants and desires—to addressing more of their obligations to society, humanity, and other issues larger than themselves. In this setting, conflict can be seen less as a displacement between rational sets of interests and more as a rift in the fabric of community with the attendant obligation for healing.

The Universality of the Four Worlds

One construct that can help inform negotiation processes is the idea of the Four Worlds and the use of transformative processes to move through them. In many faith traditions, our relationship to the world around us can be experienced through four types of perception: physical, emotional, knowing, and spiritual. One intuitive example might be seen through a glass of water, which exists most recognizably on a physical plane or, if one is thirsty or the water is particularly good, one perceives the water emotionally. One can also intellectualize the water and consider its components and interaction with our body to provide sustenance. Finally, one might say a blessing over the water, lifting its “profane” covering, and it now becomes a source of spiritual nourishment. While these four levels of perception can be thought of separately, and can often be achieved best in sequence, they should not be considered as distinct or linear. The water, for example, exists simultaneously in all four states—it is up to us to determine through which lens it will be perceived. Nonetheless, understanding the Four Worlds in sequence is often

useful, if not critical. Someone desperately thirsty, for example, may find it difficult to take the time and effort to intellectualize anything when offered a cool glass of water.

This construct seems particularly useful for our purposes, where negotiations regularly cross cultural as well as political boundaries. One notes the near-universality of the construct of the Four Worlds, what Smith (1976), in summarizing religions' common vision, calls the "levels of reality". Psychologists will recognize Maslow's (1954) hierarchy of needs in the Four Worlds, but those familiar with the mystical traditions of the globe will find much more ancient roots. In Judaism they are seen in Kabbalah, and applied through the structure of the daily prayer service—a guided meditation based, in turn, on the construct of the Temple in Jerusalem, which itself was built to emulate Moses' experience of the levels of holiness during his ascent of Mount Sinai.¹⁰ They are described in the Four *Jhannas*—levels achieved in Buddhist meditation that correspond to "the four great levels of the heavenly realm," (Mills 1999, p. 103); in Sufi mystical experience (al Jerrahi 1999); in the Shaman Four Levels of Perception (Villoldo 2006); in the Toltec Four Agreements (Ruiz 1997); and in the Native American Sacred Tree (Bopp et al. 1984). In fact, the construct is so widespread, that Shachter-Shlomi (2005) suggests that our biology is actually hard-wired to experience the world through these four lenses, through the reptilian, limbic, cortex, and unused portions of our brain respectively.

Understanding this construct and its universality leads to tremendous possibilities in the design and implementation of negotiation processes, training, and collaborative learning. It allows for a structure that moves through different lenses and perceptions, while tapping into what seems to be a fairly universal set of needs. Finally, it allows a focus on transformative processes in negotiations, to bolster the only partially successful historical emphasis on quantifiable benefits.¹¹

Application: Stages of Water Conflict Transformation

How might the Four Worlds be harnessed for water negotiations? This section describes how each of the "worlds" can be seen in different stages of water conflict and conflict transformation.

There are, of course, no "blueprints" for water conflict transformation—White (1969) reminded us long ago that, "every basin is unique." There does seem to be, however, general patterns in approaches to water conflict that have emerged over time. "Classic" disputes between, for example, developers and environmentalists, rural and urban users,

¹⁰ Described by R. Bachya Ben Asher, Spanish commentator (1263-1340), who first applied the Four Worlds into a Torah commentary based on four simultaneous yet sequential levels of meaning of text: plain, *midrashic* (*aggadic* or homiletic), philosophical, and kabbalistic exegesis (Ben Asher 1998).

¹¹ Manfred Halpern (1924-2001) developed his theory of transformation as the root of both personal and political change, based largely on Sufi understandings, as applied to international relations. He left an unfinished manuscript on the topic as his Princeton class notes for Politics 325.

or upstream and downstream riparians, suggest zero-sum confrontations where one party's loss is another's gain, and where confrontation seems inevitable. Yet such "intractable" conflicts are regularly and commonly resolved as creative thinking and human ingenuity allow solutions which draw on a more intricate understanding of both water and conflict to come to the fore.

Over time, this process has been formalized a bit and defined as one path to the transformation of water disputes from zero-sum intractable disputes to positive-sum creative solutions, centering on a migration of thought generally through four stages (described in Delli Priscoli and Wolf 2008; and Wolf et al. forthcoming). Note that all stages exist simultaneously, and stages need not be approached in sequence nor each achieved necessarily for "success." In today's world, though many disputes fail to move beyond the first or second stage, they are tremendously resilient, while a few have achieved the fourth stage and are fraught with tension. Nevertheless, like any skill, it is useful to understand the structure of an "ideal" path in order to perfect the tools required for any individual situation.

The generalized path described here (the structure for a skills-building workbook in Wolf 2008), is structured on an understanding of each of the four stages through any of four perspectives, as described in Figure 3.





Negotiation Stage ¹	Common Water Claims ²	Collaborative Skills ³	Geographic Scope
Adversarial	Rights	Trust-building	 Nations
Reflexive	Needs	Skills-building	 Watersheds
Integrative	Benefits	Consensus-building	 "Benefit-sheds"
Action	Equity	Capacity-building	 Region

Figure 3: Four Stages of Water Conflict Transformation

¹ These stages build primarily on the work of Jay Rothman, who initially described his stages as ARI – Adversarial, Reflexive, and Integrative (Rothman 1989). When ARI became ARIA, adding Action, Rothman's terminology (1997) also evolved to Antagonism, Resonance, Invention, and Action. We retain the former terms, feeling they are more descriptive for our purposes.

² These claims stem from an assessment of 145 treaty deliberations described in Wolf (1999). Rothman (1995) too uses the terms rights, interests, and needs, in that order, arguing that "needs" are motivation for "interests," rather than the other way round as we use it here. For our purposes, our order feels more intuitive, especially for natural resources.

³ These sets of skills draw from Kaufman (2002), who ties each set of dynamics specifically to Rothman's ARIA model in great detail, based on his extensive work conducting "Innovative Problem Solving Workshops" for "partners in conflict" around the world.

Stage I. Assessing the Current Setting: Basins with Boundaries

In Stage 1, in its initial, *adversarial*, setting, regional geopolitics often overwhelm the capacity for efficient water resources management. Metaphorically, the political boundaries on a map at this stage are more prevalent than any other boundaries, either of interest, sector, or hydrology. Dialogue is often focused on the past, based on the *rights* to which a country or state or province feels it is entitled, and a period of expressing pent-up

grievances can be necessary. As a consequence of these initial tensions, the collaborative learning emphasis is on *trust building*, notably on active and transformative listening, and on the process of conflict transformation. By focusing primarily on the rights and interests of countries, states, and/or provinces, inefficiencies and inequities are inevitable.

Once stakeholders are brought to the table, this stage generally involves classic hydropolitical assessments of the current setting within a basin, including biophysical, socioeconomic, and geopolitical parameters. The processes for assessing many of these aspects are well-defined (e.g., hydrologic studies, or benefit–cost analyses of development alternatives), while many are less quantitative, but no less critical (e.g., social impact statements or assessments of indigenous traditions of management).

At this stage, stakeholders often think *nationally*, or as a state or province or other political constituency, and are focused on their *rights*, and may be looking disproportionately backward, if only to be able to vent and perhaps address perceived grievances. Although understanding the baseline of any basin may take decades, if it is possible at all, it is not necessary to agree to all data before greater cooperation takes place—these assessments or training workshops can be used in and of themselves as confidence-building measures to move to the next stage, even as greater mutual understanding of the basin is being created.

Stage II. Changing Perceptions: Basins Without boundaries

As the adversarial stage plays out, occasionally some cracks can be seen in the strict, rights-based, country (province / state)-based positions of each side (although in actual water negotiations, this process can last decades). Eventually, and sometimes painfully, a shift can start to take place where the parties begin to listen a bit more and where the interests underlying the positions start to become a bit apparent. In this Stage 2, a *reflexive stage*, negotiations can shift from *rights* (what a country state / province feels it deserves), to *needs* (what is actually required to fulfill its goals). Conceptually, it is as if we have taken the national, provincial / state boundaries off the map and can, as if for the first time, start to assess the needs of the watershed as a whole. This shift, from speaking to listening, from rights to needs, and from a basin with boundaries to one without, is a huge and crucial conceptual shift on the part of the participants that can be both profoundly difficult to accomplish and absolutely vital to achieve for any movement at all toward sustainable basin management. To help accomplish this shift, the collaborative learning emphasis is on *skills building*, and we might approach the (boundary-less) basin by sector rather than by nation.

At this stage, the attention shifts from past to future as stakeholders examine each others' interests beyond positions. A process of social learning sets in. Parties can begin to ask, "What could be?" rather than "What was?" or "What is?" The metaphor for this stage is a basin without borders, where rather than *rights*, there are *needs*; and rather than thinking of national issues, we might look instead to how different sectors might be developed basin-wide.

This shift is transformative—the point at which parties move from thinking of themselves as representing countries or states / provinces to perceiving more broadly the needs of all stakeholders within a basin (whether or not they like these needs). Parties begin to understand the needs of the other and thus the requirements that must be met if agreements are to be reached.

Stage III. Enhancing Relations and Benefits: Beyond the River

Once participants have moved, in the first two stages, from mostly speaking to mostly listening, and from thinking about rights to needs, the problem-solving capabilities that are inherent to most groups can begin to foster creative, cooperative solutions. In Stage III, an *integrative stage*, the needs expressed earlier begin to coalesce to form group interests—the “why” underlying the desire for the resource. Conceptually, we start to add *benefits* to the still-boundary-less map, and to think about how to enhance benefits throughout the region, often by adding resources other than water and geographic units other than the basin. In fact, rather than allocating water, we can think about allocating benefits. The collaborative learning emphasis is now on the *relationship-building* of the group, and we begin to move in “benefit-shed” rather than being restricted by the basin boundaries.

Once the shift has been made in thinking about allocating water to allocating benefits, it is a natural progression to think together about how to enhance the benefits within and beyond the basin. This may be done within the realm of water resources alone—a well-designed dam upstream might, for example, both enhance agricultural production downstream and help protect riparian habitat. But it is often helpful to think at this stage about “baskets of benefits” that may go well beyond water or well beyond the basin in question (Sadoff & Grey 2002). Indeed, the most successful cases of building regional approaches to water have gone beyond seeing water as the end to seeing it as a mean to achieve other goals, such as socioeconomic development and reduction of fears of floods and drought. Energy production and water development are often linked, for example, as are afforestation programs, transportation networks, and environmental protection. Naturally the transaction costs of including more sectors than water go up exponentially, but so do the potential benefits. This means considering bringing in actors beyond the water sector and expanding the basket.

Stage IV. Putting It All together: Institutional and Organizational Capacity and Sharing Benefits

Finally, although tremendous progress has been made over the first three stages, both in terms of group dynamics and in developing cooperative benefits, Stage IV (the last, *action*, stage) helps with tools to guide the sustainable implementation of the plans and to make sure that the benefits are distributed fairly *equitably* among the parties. The scale at this stage is now *regional* where, conceptually, we need to put the political boundaries back on the map, reintroducing the political interest in seeing that the “baskets” that have been developed are to the benefit of all. The collaborative learning emphasis is on *capacity building*, primarily of institutions.

As much as water people like to think in terms of basins or watersheds alone, eventually the borders have to come back on the map. Political entities are primarily responsible for their own benefits and sovereignty, after all, and it is often hard to sell their own constituents on an integrated basin alone. The most critical questions to address at this stage are, “How can the benefits be distributed equitably or perceived as fair?” and “How can sustainable and resilient institutions be crafted?” “How are the existing institutions and organizations to be taken care of or compensated for any change?” The first question may require trade or side payments, while the second and third questions must evoke the best in institutional design. It is important to remember that conflict potential can actually increase during periods or situations of increased benefits. The increase of benefits alone will not assure the mitigation of conflict. This is because parties may realize benefits they never had, but they may perceive that the other is getting relatively more benefits than they are getting. Thus the perceptions of fairness and equity, not just the tangible delivery of benefits, are critical.

It is critical not to think of these “stages” as a linear process, where the further along the process goes, the better it is. Most basins ebb and flow back and forth over time, finding the level that meets a particular set of hydropolitical needs for a given place and time: there is no “right” set of answers. One might think of these all existing in parallel “universes” simultaneously, each with its own set of approaches or tools, any of which may be useful at any given time, or conceptually as a helix or set of spheres rather than strictly linear. They are broken apart here only for the purposes of explanation.

Four Worlds of “Water”

Understanding this construct may help structure more effective future negotiation processes, as well as skills-building and collaborative learning exercises. Even the word “water” can be understood differently depending on the lens through which one is viewing it, and the mediator / facilitator can harness the construct and sequence of the Four Worlds to facilitate new understanding. In contrast, we ignore the Four Worlds at our peril.

As peace negotiations between Israelis and Arabs commenced in the early 1990s, for example, each side approached the issue of water very differently. From the Palestinian and Jordanian side, the concept of “water” was understood in both a very physical sense—people literally did not have enough clean water in some cases for sustenance—and in an emotional sense—control over water represented larger issues of sovereignty and occupation. From the Israeli side, “water” was constructed intellectually—survival had long been assured so the challenge was to move, price, treat, and store water in the most efficient manner.

These conflicting conceptualizations led to both difficult impasses—water was the last issue concluded in the Israel-Jordan Treaty of Peace—but also to especially creative solutions. In what will no doubt become a classic modification of the tenets of international law, Israelis and Jordanians invented legal terminology to suit particularly local requirements in their 1994 peace treaty. In negotiations leading up to the treaty,

Israelis, making the intellectual argument that the entire region was running out of water, insisted on discussing only water “allocations,” that is, the future needs of each riparian. Jordanians, in contrast, refused to discuss the future until past grievances had been addressed—they would not negotiate “allocations” until the historic physical and emotional question of water “rights” had been resolved.

There is little room to bargain between the past and the future, between “rights” and “allocations.” Negotiations reached an impasse until one of the mediators suggested the term “rightful allocations” to describe simultaneously historic claims and future goals for cooperative projects—this new term is now immortalized in the water-related clauses of the Israel-Jordan Treaty of Peace.

As for the Fourth World, we can see that, throughout the world, native and indigenous peoples see “water” as a holistic, spiritual resource. With the construct of the Four Worlds, we can conceptualize how jarring, to the point of sacrilegious, it can be to approach problem-solving in “rational,” economic, concepts.

Conclusions

Shared water resources provide a useful lens through which to describe both the hazards of ignoring the relationship between rationality and spirituality, but also demonstrate the potential an integrated approach may offer for effective negotiations and conflict transformation.

As the historically contrasting worldviews of the Global North / West and South / East increasingly interact, both within and without the worlds of shared waters, we have the opportunity to heal historic divisions. The history of water conflicts and cooperation suggests that people do come together, even across vociferous divides. And yet the dangers of scarcity-driven suffering and conflict will only increase with population growth, poverty, and global change. Yet as grow the dangers, so too grow the opportunities for dialogue and healing.

In 1996, the Episcopal Diocese in Massachusetts shifted its diocese boundaries from political divisions to watershed boundaries. The rationale was instructive: “Simply demonstrating that we are all connected by water: rich and poor, urban and rural, upstream and downstream, is a fine place to start. I think the Holy Spirit will take care of the rest” (MacAusland 1996).

Water ignores all separations and boundaries save for those of the watershed itself. As such, it offers a vehicle for bringing those who share it together and, since it touches all we do and experience, suggests a language by which we may discuss our common future.

ⁱ Literature Cited

Abou El Fadl, Khaled. Islam and the Challenge of Democracy. Princeton, NJ: Princeton University Press, 2004.

al Jerrahi, Sheikh Ragip. "Introduction," in Fadiman, James and Robert Frager (eds.). Essential Sufism. New York, HarperCollins, 1997, 1999.

Anand, P. B. (2004). Water and identity: an analysis of the Cauvery River water dispute. BCID Research Paper Number 3, Bradford, UK: Bradford Centre for International Development Series.

Barthel, Trip. "Unity and Diversity in Conflict Resolution." *ACResolution*, Vol 5 #1, Fall 2005, p. 32.

Baviskar, A. (1995). *In the Belly of the River: Tribal Conflicts over Development in the Narmada Valley*. Oxford: Oxford University Press.

Bingham, G., Wolf, A. and Wohlgenant, T. (1994). *Resolving Water Disputes: Conflict and Cooperation in the U.S., Asia, and the Near East*. Washington, DC: US Agency for International Development.

Bopp, Judie, Michael Bopp, Lee Brown, and Phil Lane, Jr. The Sacred Tree: Reflections on Native American Spirituality. Twin Lakes, Wisc.: Lotus Light, 1984, 1986.

Bowling, Daniel. "Who Am I as a Mediator? Mindfulness, Reflection, and Presence." *ACResolution*, Vol 5 #1, Fall 2005, pp. 12-15.

British Broadcasting Corporation-BBC. (2005). Thousands flee Kenyan water clash. BBC News Africa, January 24, 2005. <http://news.bbc.co.uk/2/hi/africa/4201483.stm>

Burgess, Heidi. "Transformative Mediation: A Summary." <http://www.colorado.edu/conflict/transorm/tmall.htm> accessed 28 April 2004.

Burton-Christie, Douglas. "The Spirit of Place: The Columbia River Watershed Letter and the Meaning of Community." *Horizons*. Vol. 30 #1, 2003. pp. 7-24.

Carius, A., Dabelko, G. D. and Wolf, A. T. (2004). Water, conflict, and cooperation. Policy briefing paper for the United Nations & Global Security Initiative of the United Nations Foundation. Available online at http://www.un-globalsecurity.org/pdf/Carius_Dabelko_Wolf.pdf.

Chalecki, Elizabeth L., Peter H. Gleick, Kelli L. Larson, Arian L. Pregonzer, and Aaron T. Wolf. "Fire & Water: Technologies, Institutions, and Social Issues in Arms Control

and Transboundary Water-Resources Agreements.” *Environmental Change and Security Project Report*. Issue #8, Summer 2002.

Cloke, Kenneth. “Why Every Conflict Breaks Your Heart: Conflict as a Spiritual Crisis.” *ACResolution*, Vol 5 #1, Fall 2005, pp. 16-21.

Cloke, Kenneth. The Crossroads of Conflict: A Journey into the Heart of Dispute Resolution. Calgary, Alberta: Janis, 2006.

Conca, K. and Dabelko, G. D., eds. (2002). Environmental Peacemaking. Washington, DC: Woodrow Wilson Press.

Delli Priscoli, J. and A. T. Wolf. Managing and Transforming Water Conflicts. London and New York: Cambridge University Press, 2008.

Faruqui, Naser I., Asit K. Biswas, and Murad J. Bino, eds. Water Management in Islam. Tokyo: United Nations University Press, 2001.

Finger M. and L. Tamiotti, eds. “The Multi-Governance of Water through Four Case-Studies.” Report for the World Conservation Union (IUCN), Commission on Economic, Environmental, and Social Policy (CEESP). Geneva 2001.

Fisher, R. and Ury, W. L. (1981). *Getting to Yes: Negotiating Agreement without Giving In*. London: Hutchinson Business.

Fox, Erica Ariel and Marc Gafni. “Seeing With New Eyes: One Step Toward the Field of the Future.” *ACResolution*, Vol 5 #1, Fall 2005, pp. 22-25.

Giordano, M., Giordano, M. and Wolf, A. T. (2002). The geography of water conflict and cooperation: internal pressures and international manifestations. *Geographical Journal*, 168 (4), pp. 293–312.

Gopin, Marc. *Between Eden and Armageddon: The Future of World Religions, Violence, and Peacemaking*. Oxford: Oxford University Press, 2000.

Green, Arthur. A Guide to the Zohar. Stanford, CA: Stanford University Press, 2004.

Fisher, Franklin M., Shaul Arlosoroff, Zvi Eckstein, Munther Haddadin, Salem G. Hamati, Annette Huber-Lee, Ammar Jarrar, Anan Jayyousi, Uri Shamir, and Hans Wesseling. “Optimal Water Management and Conflict Resolution: The Middle East Water Project.” *Water Resources Research*, Vol. 38, No. 11, 2002.

Hall, Edward T. *Beyond Culture*. New York: Doubleday, 1977.

Hwoschinsky, Carol. “Listening to the Heart.” *Alternatives*. Spring 2003.

ICWE. (1992). Development Issues for the 21st Century. The Dublin Statement and Report of the Conference, Dublin, Ireland, 26-31 January 1992. Geneva: World Meteorological Organization.

Irani, George. "Islamic Mediation Techniques for Middle East Conflicts." Middle East Review of International Affairs (MERIA) Journal. Vol. 3 #2, June 1999. (Internet journal; no page numbers.)

Jabbour, Elias. Sulha: Palestinian Traditional Peacemaking Process. Montreat, NC: House of Hope Publications, 1993, 1996.

MacAusland, Steve. As quoted in, Anonymous. "Massachusetts Episcopal Diocese Bases Reorganization on Watersheds." *Earthkeeping News*. Vol. 5 #6, September/October 1996. pp. 1-2.

Martin, David. "The Religious and the Secular: Pressure Points and Alignments." Keynote address, Forum 2000. Prague: 8 October 2007.

Matt, Daniel C. The Essential Kabbalah: The Heart of Jewish Mysticism. Edison, NJ: Castle Books, 1997.

McConnell, John A. Mindful Mediation: A Handbook for Buddhist Peacemakers. Bangkok, Thailand: Buddhist Research Institute, 1995.

Miller, C., ed. (2001). *Fluid Arguments: Five Centuries of Western Water Conflict*. Tucson: University of Arizona Press.

Mills, Laurence-Khantipalo. Buddhism Explained. Chiang Mai, Thailand: Silkworm Books, 1999.

News24.com. (2005). Thousands flee water fights. January 24, 2005.
http://www.news24.com/News24/Africa/News/0,6119,2-11-1447_1651487,00.html

O'Connor, Thomas P., Jeff Duncan, and Frank Quillard. "Criminology and Religion: The Shape of an Authentic Dialogue." *The Journal of Criminology & Public Policy*. Vol. 5 #3, 2006. pp. 559-570.

Ollila, Petri, Juha I. Uitto, Christophe Crepin, and Alfred M. Duda. Multicountry Project Arrangements: Report of a Thematic Review. Monitoring and Evaluation Working Paper 3, September 2000.

Ostrom, Elinor (1992), 'Crafting Institutions', in *Crafting Institutions for Self-Governing Irrigation Systems*, Chapter 3, San Francisco CA: International Center for Self-Governance, 41-65.

Palmer, Martin and Victoria Finlay. Faith in Conservation: New Approaches to Religions and the Environment. Washington DC: The World Bank, 2003.

Reisner, M. (1986). Cadillac Desert: The American West and Its Disappearing Water. New York: Viking.

Riskin, Leonard L. "The Contemplative Lawyer: On the Potential Contributions of Mindfulness Meditation to Law Students, Lawyers, and their Clients." Harvard Negotiation Law Review. Vol 7 #1, Spring 2002. pp. 1-67.

Riskin, Leonard L. "Mindfulness: Foundational Training for Dispute Resolution." Journal of Legal Education. Vol. 4 #1, March 2004. pp. 79-90.

Ruiz, Don Miguel. The Four Agreements: A Toltec Wisdom Book. San Rafael, Calif.: Amber-Allen, 1997.

Sadoff, Claudia W. and David Grey. "Beyond the River: The Benefits of Cooperation on International Rivers." Water Policy. Vol 4 #5, 2002. pp. 389-404.

Scholem, Gershom. On the Kabbalah and its Symbolism. New York: Schocken Books, 1965 (1996).

Shachter-Shlomi, Zalman. Lecture, Jerusalem, Israel, June 2005.

Shamir, Y. (2003). *Alternative Dispute Resolution Approaches and Their Application*. Paris: UNESCO IHP Technical Documents in Hydrology, PCCP Series #7.

Smith, Daniel L. "The Rewards of Allah." Journal of Peace Research. Vol. 26 #4, 1989. pp. 385-398.

Smith, Huston. Forgotten Truth: The Common Vision of the World's Religions. San Francisco: HarperSanFrancisco, 1976, 1992.

Tucker, Mary Evelyn and John Grim, eds. Worldviews and Ecology. Lewisburg, Pa.: Bucknell University Press, 1993. (Paperback edition, Orbis Books, 1994; 2d ed., 1995)

Umbreit, Mark. "Mindfulness, Deep Listening and Stories: The Spiritual Core of Peacemaking." *ACResolution*, Vol 5 #1, Fall 2005, pp. 26-27.

Villoldo, Alberto. The Four Insights: Wisdom, Power, and Grace of the Earthkeepers. Carlsbad, CA: Hay House, Inc., 2006.

Vlachos, E. (1994). *Transboundary Water Conflicts and Alternative Dispute Resolution*. Cairo: International Water Resources Association, VIIIth Congress.

Weingarten, Uzi. Communicating with Compassion. Course packet available online at: <http://www.homestead.com/uziteaches/>

White, G. (1969). *Strategies of American Water Management*. Ann Arbor University Press.

Wolf, A. "Conflict and Cooperation Along International Waterways." *Water Policy*. Vol. 1 #2, 1998. pp. 251-265.

Wolf, A. "Indigenous Approaches to Water Conflict Negotiations and Implications for International Waters." *International Negotiation: A Journal of Theory and Practice*. Vol. 5 #2, December 2000.

Wolf, A. T., ed. (2002). Conflict Prevention and Resolution in Water Systems. Cheltenham, UK: Elgar.

Wolf, A. T., ed. (2008, forthcoming). Sharing water, sharing benefits: working towards effective transboundary water resources management. A graduate/professional skills-building workbook. Paris and Washington, DC: UNESCO and the World Bank.

Wolf, A.T., A. Kramer, A. Carius, G.D. Dabelko. 2005. "Managing Water Conflict and Cooperation," in Worldwatch Institute, State of the World 2005: Redefining Global Security. Worldwatch Institute, Washington, DC.

Wolf, A., S. Yoffe, M. Giordano. "International Waters: Identifying Basins at Risk." *Water Policy*. Vol. 5 #1, 2003.