

Can the Moorish water tribunal in Valencia provide a novel approach to 'water justice' in some arab countries?

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Abstract:

In many Arab countries, the need for finite water resources continues to escalate as the countries' growing population and economy demand reliable water supplies for both a greater amount and variety of uses (i.e., domestic, industrial, and agricultural; where the latter continues to consume more than 80 percent of all water resources in the Arab region). When water users seek to protect or change existing water rights, conflicts over the allocation of these scarce resources arise. Climate change and concern regarding water disputes have given resolution of water adjudications high political priority. Countries' goal is to identify an efficient and cost-effective structure of dispute settlement mechanism considering the magnitude of water adjudications.

It was for this purpose that Valencians farmers established the Water Tribunal in Andalusia (Spain). This Tribunal dates back to the Xth century, when the first water judges were peer-elected. The forum for resolving topical water rights conflicts will be most often the water court, a revisited form of the Water Tribunal. This paper depicts this long-standing and realistic example on dispute resolution in water. The Water Tribunal can be redesigned to face the challenge of settling water disputes. We will be looking for opportunities to more efficiently resolve current and avoid future water disputes in some Arab countries.

Introduction

The world is threatened by climate change, soil degradation and desertification, deforestation, and water scarcity, the need to understand and implement sustainable practices has never been more urgent for Arab countries⁽¹⁾.

Ancient institutions are living monuments of the ingenuity of mankind: the Ma'rib dam and other dams on Wadi Sheba in Yemen, the Marduk dam on the Tigris near Samarra and irrigation and drainage systems of Nippur in Mesopotamia, the gardens of Alhambra, and the 'Tribunal de las Aguas de la Vega de Valencia' (Water Tribunal of Valencia in Andalusia, Spain)⁽²⁾. All testify the importance attached to water in the past. Throughout centuries, our distant ancestors have contributed much to the water venture, working out some of the finest examples of sustainable water institutions.

There has been new recognition of the important and irreplaceable role ancestral traditions, attitudes, and ideas play in human interactions

(1) See, generally, Arab Forum of Environment Development (AFED), Arab Environment: Water (Beirut, 2010).

(2) Since there is a dearth of current English sources available to scholars to assist them in gaining a basic understanding of Water Tribunal we have resorted to Spanish sources, see generally: Carlos Arrieta Alvarez, Jesus Gonzalez Perez, & Julio Toledo Jaudenes, *Comentarios a la Ley de Aguas* (Editorial Cívitas S.A. Madrid, 1987); Francisco J. Borrull y Vilanova, *Tratado de distribución de las Aguas del R?o Turia y del Tribunal de los Acequeros de la Huerta de Valencia* (Imprenta de Benito Monfort, 1831); Vicente Branchat, *Noticia hist?rica de la antigua legislaci?n valenciana sobre el r?gimen de las aguas publicas* (Valencia, 1851); V?ctor Fair?n Guill?n, *El Tribunal de las Aguas de Valencia y su proceso* (Artes Gr?ficas Soler S.A. Valencia, 2.a edici?n, 1988); Franquet y Beltran, *Ensayo sobre el origen, esp?ritu y progreso de la legislaci?n de las aguas* (Madrid, 1864); Vicente Giner Boira, *El Tribunal de las aguas de Valencia* (Fundaci?n Valencia III Milenio & UNESCO, Imprime Federico Dom?nech, S.A., 1997); Vicente Giner Guillot, *Exposici?n de distintas actuaciones del Tribunal de las Aguas de la Vega de Valencia en defensa de los derechos de las Acequias que lo integran y documentos referentes a todo ello* (Imprenta Guillot Aguilar, Valencia, 1944); Thomas F. Glick, *Irrigation and society in medieval Valencia* (1970); Juan Reig y Flores, *Tribunal de las Aguas de Valencia* (1879); Antonio Guill?n y Rodr?guez de Cepeda, *El Tribunal de las Aguas de Valencia y los modernos Jurados de Riego* (Imprenta Dom?nech, Valencia, 1920); Antonio Guill?n y Rodr?guez de Cepeda, *Tribunales de Aguas; su constituci?n y su competencia. Sistemas eficaces para la ejecuci?n de sus fallos* (Valencia, 1921).

worldwide⁽³⁾ A better understanding of ancient sustainable water institutions will no doubt help increase their relevance and contribute to addressing current water rights conflicts in Arab countries (e.g., protecting or changing an existing water right, adjudicating a new water right)⁽⁴⁾.

Because water was the lifeblood of the arid and semi-arid lands, the community took precautions to ensure peaceful dispute resolution. In keeping with the common good goal of dispute resolution, the Andalusian farmers coordinated their irrigation and farming efforts. The Water Tribunal of Valencia in Andalusia⁽⁵⁾ illustrates an original water distribution mechanism⁽⁶⁾. It has not faded into oblivion or been repressed, rather it has thrived for more than one thousand years.

Illustrating Water Tribunal focus on what is 'due' is its localized brand of justice. It is managed by local farmers, who themselves are held responsible to their fellow farmers. The Water Tribunal operates completely in the public's view and is directly accountable to the farmers it aims to serve. The Water Tribunal's dispute resolution takes place both frequently and swiftly and uses regional characteristics to its benefit. Using regulations that are specific to each irrigation community, it resolves conflicts that are pertinent to the local community.

(3) See generally, IUCN, *Prácticas ancestrales y derecho de aguas: de la tensión a la coexistencia* (Marta Brunilda Rovere y Alejandro Iza (Editores), 2007); UNESCO-LINKS, *El agua y los pueblos indígenas* (2007).

(4) Agriculture continues to consume more than 80 percent of all water resources in the Arab region, see Shawky Barghouti, *Water Sector Overview*, in *AFED 16*, supra note 1. See generally, *Community-based water law and water resource management reform in developing countries* (B. van Koppen, M. Giordano, J. Butterworth eds., 2007).

(5) See Tarek Majzoub, *Water laws and customary water arrangements*, in *AFED 140-141*, supra note 1.

(6) There has been new recognition of the important and irreplaceable role ancestral traditions, attitudes, and ideas play in human interactions with the rest of the natural world. See generally, IUCN, *Prácticas ancestrales y derecho de aguas: de la tensión a la coexistencia* (Marta Brunilda Rovere y Alejandro Iza (Editores), 2007); UNESCO-LINKS, *El agua y los pueblos indígenas* (2007).

This paper contends that an examination of the Water Tribunal offers a very unique example of justice and enables a deeper understanding of its relevance as a mechanism of settling water disputes.

In particular, this paper argues that the Water Tribunal both exemplifies the definition of justice and demonstrates “a challenge to the science of law and a threat to its monopoly of legal knowledge”⁽⁷⁾. The Water Tribunal’s version of justice, and particularly its instantiation of transparency, is entirely organic to the local community it serves. Further, the Tribunal emphasizes what is due process. Every farmer is involved in the just dispensation of water. This is the possibility of home-grown Moorish justice evoking the ideal people tribunal, for the people, by the people.

It is beyond the scope of this paper to determine the Water Tribunal’s effect on water dispute resolution today. Rather, by emphasizing the Tribunal’s Moorish roots, we will examine the Tribunal’s significance as a means to challenge the dominant methods of law and provide a novel approach to providing ‘water justice.’ The Water Tribunal conducts its business in an entirely different manner from any ordinary court (or tribunal), and exists within the ‘shadow of law’ not controlled by the mainstream Spanish legal system. The Water Tribunal is a reaction against the civil law legal system and outlasts all others; it represents the “desires that survived law”⁽⁸⁾.

This paper depicts one living example on dispute resolution in water, the Water Tribunal. The forum for helping resolve water rights conflicts in some Arab countries will be most often the water court, a revisited form of the Water Tribunal. We will focus on the application of the Water Tribunal to timely resolve current and avoid future water disputes. A better understanding of the Water Tribunal will no doubt help increase its relevance and possible contribution to addressing current water rights conflicts. Grasping the Water Tribunal’s unique form of justice requires

(7) See Peter Goodrich, Introduction: Towards a Minor jurisprudence, in *Law in the Courts of Love: Literature and Other Minor Jurisprudences 2* (New York: Routledge Publishing, 1996).

(8) *Id.* at 3.

an appreciation for the water distribution and Tribunal organization. Then we address its main features and the factors that should be taken into account for a promising water court. Finally, we will be looking for opportunities to more efficiently settle water disputes within the current rules and statutes.

I - A Tradition of Equity and Transparency⁽⁹⁾

The 'Tribunal de las Aguas de la Vega de Valencia,' better known by its shorter name of 'Tribunal de las Aguas' (or Water Tribunal in English), is without any doubt the oldest European institution of justice⁽¹⁰⁾. This institution, spanning a whole millennium, is still strikingly successful in the administration of water rights. This Water Tribunal, governing Valencia's fertile lowlands, is in charge of preserving serenity among water users and ensuring fair water distribution.

The Romans⁽¹¹⁾ were slow in developing a sound water institution of their own to settle irrigation disputes in Valencia. We owe the comprehensive organizational structure of the Water Tribunal to Cordoba Caliphates, Abd Er-Rahman III and Al-Hakem II⁽¹²⁾. Two details are sufficient to indicate its Moorish origin: its habit of meeting at the door of the Cathedral⁽¹³⁾ (previously the Great Mosque) because non-Muslim farmers were not allowed to go inside, and that the trial was held every Thursday,⁽¹⁴⁾ one day before the Muslim day of rest and worship⁽¹⁵⁾.

The Water Tribunal revolves around the river Turia and its eight main canals,⁽¹⁶⁾ five on the right bank (Quart, Benacher y Faitanar,

(9) This part draws substantially from the book of Giner Boira, *supra* note 2.

(10) *Id.* at 25.

(11) *Id.*

(12) *Id.* at 25, 27, and 57.

(13) On the right-hand side of Valencia Cathedral's Gothic Door of the Apostles.

(14) See Giner Boira 27, *supra* note 2.

(15) *Id.*

(16) *Id.* at 28, 38, and 54.

Mislata, Favara, and Robella),⁽¹⁷⁾ and three on the left one (Tormos, Mestalla, and Rascaña)⁽¹⁸⁾.

Water distribution

For Turia water distribution, a simple and efficient formula is applied for the canal organization and administration: all farmers irrigating from a channel are the common owners of the water provided; but water is granted in proportion to the plot owned; water is tied to the land and cannot be separated from it.

The aggregate of all irrigated land, from the main canal via a system of smaller channels, form an association of irrigators (El síndico de la sequía)⁽¹⁹⁾; its 11,691 members⁽²⁰⁾ are the owners of the volume of water. Since the discharge of the River Turia is low and the extent of the arable lands is huge, a brilliant water administration evolved to make water reach all the plots and thus save the crops. In times of scarcity, a variable volumetric unit was devised, called 'fila' (from Arabic, 'fil-lah', a part taken from a whole)⁽²¹⁾, which enabled a wise water distribution⁽²²⁾.

When the water of the river Turia reaches the place where the first of the canals starts, it splits into 138 equal parts ('filas'), assigned thereafter to the different canals to secure their water rights. The 'fila'⁽²³⁾ depends on the discharge of the river. If the river has a high discharge, 'filas' are large; and if the discharge is low, 'filas' are scanty⁽²⁴⁾.

The Canal Associations are governed by ancient Ordinances (viejas Ordenanzas)⁽²⁵⁾. The strict observance of such rules is supervised by an Administration Board, which is renewed every 2 or 3 years. The head of this Board, called the Official, is elected by all the members of the

(17) Id. at 28.

(18) Id.

(19) Id. at 31.

(20) See .

(21) See Giner Boira 35, supra note 2.

(22) Id at 34-35.

(23) Id.

(24) Id. at 34.

(25) Id. at 29.

Irrigators' Association, and must directly farm his own plot(s), of a size that must be enough to make him earn a living. The Official must also be a man of some standing, and honest. As president of the canal, he is member of the Water Tribunal. The remaining members of the Canal Administration Board, also farmers, are elected by all the Association's irrigators; they must belong to the different sections of the canal. The Official and Board members are assisted by the Channel Warden and some employees. Their task is to make sure that water reaches every farmer in his watering turn, and keep the Board members informed about any problem or trespass to water to be reported to the Water Tribunal.

Water Tribunal organization

The Tribunal is composed of the eight canal officials⁽²⁶⁾. Its adjudication process is extremely simple⁽²⁷⁾. Cases are filed in case of any of the following transgressions: water theft in times of scarcity, breakage of channels or walls, pouring too much water into neighboring fields, altering of irrigation turns, keeping irrigation ditches dirty, or watering without asking for a turn⁽²⁸⁾. The defendant is summoned by the Channel Warden for the following Thursday⁽²⁹⁾. If he does not appear, he is summoned two more times⁽³⁰⁾. If he fails to appear, the accusation is validated and he is tried in absentia⁽³¹⁾.

The Officials sit down in the chairs assigned to their respective canals⁽³²⁾. The Tribunal bailiff, formerly the chief guard entrusted with supplying the water and lifting the sluice gates, asks the President's permission to start the calls and hails: "All those accused from the Séquia de Quart"⁽³³⁾. The summons is heard in the same order in which the canals take the river water, starting with Quart, the first, and ending with Rovella, the last⁽³⁴⁾.

(26) Id. at 37.

(27) Id. at 35-44.

(28) Id. at 43.

(29) Id.

(30) Id.

(31) Id.

(32) Id.

(33) Id.

(34) Id.

The Channel Warden puts forward the case or presents the plaintiff. He ends with the ritual phrase: “That is all he has to say”. The president enquires: “What has the defendant to say?” and the defendant presents his defense. The procedure is verbal⁽³⁵⁾. Everyone intervenes on his own behalf, without counsel or written documents, can call witnesses and even propose a visual inspection⁽³⁶⁾. The President and members of the Tribunal can ask any question⁽³⁷⁾, then the Tribunal renders its verdict in the parties’ presence⁽³⁸⁾. The trial proceedings are held in the Valencian language⁽³⁹⁾. Officials and canal employees can also be sued, either as irrigators and/or for their acts vis-à-vis other Irrigation Associations.

In order to guarantee maximum impartiality, the Official for the canal to which the party belongs does not intervene in the case⁽⁴⁰⁾. As a rule, if a defendant belongs to a canal on the right bank, the sentence is rendered by the Officials from the left bank, and vice versa⁽⁴¹⁾. If the defendant is found guilty, the President states the ritual phrase: “This Tribunal hereby convicts you and orders you to pay costs and damages, according to the Ordinances”⁽⁴²⁾. Each canal’s ordinance fixes the penalties for different transgressions⁽⁴³⁾. No appeals can be made⁽⁴⁴⁾, and sentence execution is secured by the Channel Official⁽⁴⁵⁾. It has seldom been necessary to resort to ordinary Andalusian courts to have Water Tribunal sentences implemented⁽⁴⁶⁾.

(35) Nevertheless, after the first Water Law was passed in Spain, the need to record cases led to a Book of Registry (i.e., plaintiff’s name, name of the channel, grounds and date of complaint).

(36) See Giner Boira 44, supra note 2.

(37) Id.

(38) Id.

(39) Id. at 43.

(40) Id. at 44.

(41) Id.

(42) Id.

(43) Id. at 39 and 44.

(44) Id. at 44.

(45) Custody and imprisonment were unknown to the Water Tribunal, see Giner Boira 50, supra note 2.

(46) Id. at 43.

II - The Dispute Resolution Manifesto: Arguments for Fully-Fledged Water Court

The Water Tribunal is by no means offered as a universal 'tool-kit' or as ready-made answer for all cases in the Arab region, but rather as a suggestion that it is always useful to acknowledge other good practices. However, most Arab countries can somehow benefit from this living institution crafted by tradition⁽⁴⁷⁾.

Main features of the Water Tribunal

This world-famous Andalusian institution has survived centuries of political turmoil⁽⁴⁸⁾, and gradual improvements were introduced over time for administering and fairly sharing water. Thus, the main features of the Water Tribunal are four⁽⁴⁹⁾. First, simplicity⁽⁵⁰⁾, because the Warden or the plaintiff and the defendant can put forward their case before the Official and bring evidence and witnesses with no complicated protocols and legal formulae⁽⁵¹⁾.

Second, verbal, because all phases of the trial, including case submission, enquiries (made to clear up, explain, or justify the facts with the intervention of the President and officials who verbally question the parties), and sentencing are oral⁽⁵²⁾.

Third, speedy, because the Tribunal meets weekly⁽⁵³⁾ and addresses transgressions committed since the previous Thursday⁽⁵⁴⁾. Matters can only be postponed for at most 21 days, and only due to failure to appear by the accused⁽⁵⁵⁾.

(47) The Water Tribunal in Valencia led to the creation of the International Association for Water Law in 1967, the convening of the International Conference on Water Law Systems over the World in 1975, and the adoption of the Magna Carta of Water in the World in 1977 (see Giner Boira 51-52, supra note 2). The Water Tribunal was inscribed in 2009 on the Representative List of the Intangible Cultural Heritage of Humanity, at [\(visited August 20, 2010\)](#).

(48) See Giner Boira 61-62, supra note 2.

(49) Id. at 44-47.

(50) Id. at 45.

(51) Id. at 44.

(52) Id. at 45.

(53) Id. at 46, 47.

(54) Id. at 50.

(55) Id. at 46.

Fourth, economic,⁽⁵⁶⁾ because the trial does not involve any type of procedural costs⁽⁵⁷⁾. Officials do not receive any salary or expenses⁽⁵⁸⁾. The offending has to pay traveling expenses of the Warden or Tribunal bailiff⁽⁵⁹⁾. Compensatory damages are not procedural expenses⁽⁶⁰⁾.

To cope with rising demands and drought (1980-1987)⁽⁶¹⁾, the Water Tribunal has tightened its administration of water rights, insisting on greater efficiency and conservation, and has adjudicated all the rights in a canal to ensure more certainty and to cull out unused and over-stated rights. The basic principles of Valencian ordinances have not changed greatly. Indeed, today they are less often determinative of disputes than regulatory and administrative requirements of 'permit statutes.' In this twenty-first century, water disputes are few in Valencia, simply because behind the Tribunal, lays a model of down-to-earth and swift justice the Valencians have always respected, and had the most influence on the survival of this institution⁽⁶²⁾. Because of the congestion of ordinary Spanish courts, it may sometimes take more than a year before a case comes to trial.

But can we replicate the success of the Water Tribunal in Valencia in some Arab countries? And can we extrapolate this unique form of justice? Are the current statutory provisions conducive for water dispute settlement? What are the possible reforms that need to be carried out?

Clearly the answers to these questions lay in a sense of destiny. No civilization can create a sense of destiny without a sense of History. To an alarming degree we have not called on one of our great resources, our traditional institutions, to help us build this new sense of destiny. The question therefore arises, 'have any of the traditional institutions in their original form any really constructive part to play in the planning of the

(56) Id. at 46-47.

(57) Id. at 47.

(58) Id. at 46.

(59) Id.

(60) Id. at 47.

(61) Id. at 92.

(62) Id. at 57-60, and 87-89.

future?' The answer must, in reality, be 'no'. On the other hand, the answer to the question 'could they profitably be adapted to the Arab countries?' is, it is hoped, 'yes'. The question that inevitably follows, 'how?', is certainly beyond the competence of the present writers to answer, as indeed it probably is of those who are actively concerned in trying to shape the Arab future. Here, however, it is at least encouraging to see that the concept of the Water Tribunal in Valencia is always relevant for most Arab countries.

To the degree that the Arabs' destiny is inextricably tied up with water, countries should be looking to their celebrated water past. To an alarming degree, most Arab countries have not called on one of their great resources, their rich water history, to help them build this new sense of destiny. Looking at the past is essential if Arab countries are to actively build a peaceful management of water disputes. Nevertheless, the overall goal of this revisit is to fuse traditional practice with recent water law developments as a way to achieve peaceful management of water disputes in most Arab countries.

As already observed a successful water institution should be socially acceptable and economically feasible. So most water advisers have at least learned that planning does not consist of such simple solutions as desalinated water instead of natural water; some have even discovered the necessity for examining the links between the economic and social aspects of traditional institution, so that change may be introduced in the one with the minimum of dislocation in the other. Often good water institutions fail if they are not understood by local politicians or accepted by grassroot water users. Water institutions and the social context in which they operate must be inspected together as institutions are not above social dynamics. Water institutions need to be crafted with a participatory and consultative approach, involving customary arrangements and statutory provisions⁽⁶³⁾, to develop understanding and ownership of the change process.

(63) See Tarek Majzoub 138-142 and 144-149, supra note 5.

The dilemma faced by those engaged in water management at local level has been how to reconcile the new institutions at the district, provincial, and central government levels⁽⁶⁴⁾. They have to reconcile the roles of customary arrangements and statutory provisions. As it has always been claimed, there is a lot of resentment among the people at the community or local level about attempts by the national water institution to assert its authority regarding water allocation.

Of course, where customary water arrangements are working well, and are strongly supported by grassroot water users, then they should ideally form the basis of, or at least be integrated into, any national water institution and both law and policy makers need to be aware of this. It would, however, be inappropriate to assume that customary water arrangements work without problems⁽⁶⁵⁾. People at the local community have their own power dynamics, and are often divided by ethnic allegiance, clan cleavage, level of wealth, and gender.

The challenge is for most Arab countries to take the best of customary water arrangements, the best of statutory water provisions⁽⁶⁶⁾ and to create, in the interests of the local communities, a water-management paradigm that is located in the needs and culture of its societies. One way forward would be to develop a methodology to operationalize this challenge, possibly in the form of a water court that countries could use to assess the emerging trends in the various dispute settlement options.

Factors that should be taken into account for a water court

The first factor which is readily apparent is that there has been a remarkable increase in the number of conflicts over water use in most Arab countries. A year does not go without some major disputes on water. Moreover, the right to water poses on Arab countries obligations

(64) Id. at 149-150.

(65) Id. at 150-151.

(66) Id.

of progressive realization as well as immediate obligations⁽⁶⁷⁾. This indicates also an increasing willingness of parties to proceed to the final resort.

The second factor which bears mention is that the available fora for resolving disputes has also increased. Four decades ago, national water laws focused almost exclusively on the water court. Scholars imagined that there was not really a great deal more available to applicants. That too has changed, and noticeably so. Indeed, in some cases (particularly in the broad American context), parties involved in a dispute are almost spoilt for choice concerning available fora. It is not unusual for an applicant wishing to initiate proceedings to have a range of options, such as water court, arbitration, and the Inter-American Court of Human Rights. The idea that dispute settlement fora are not available, whether in the American context or, increasingly, in other parts of the world, no longer holds true. But a revisited water court should be created only if a further study could demonstrate that this court is the best way to handle the backlog of water cases. The top three elements most in need of improvement by the water court are: timely action by court on cases, cost of process, responsiveness and professionalism of other parties. It is recommended to create a standard set of rules and regulations for how the water court works, streamline the water adjudication process, i.e., simplified adjudication process for smaller, less complex cases. While adjudication plays important role, conciliation/pre-trial proceedings mechanisms remain a real option. This brings us to another related point, and the central part of the manifesto: assuming one does get to the

(67) The General Assembly adopted on July 28, 2010 a resolution recognizing access to clean water, sanitation as human right, by recorded vote of 122 in favor, none against, and 41 abstentions, at (visited August 20, 2010). Countries have the obligation of ensuring the full enjoyment of basic water needs (see Committee on Economic, Social and Cultural Rights, General Comment No. 15 (2002): The right to water (arts. 11 and 12 of the International Covenant on Economic, Social and Cultural Rights), doc. E/C.12/2002/11, January 20, 2003, available at (visited August 20, 2010)). Moreover, each country has an obligation to protect this right from the illegal interferences. If we accept that there is a human right to water, to what extent does a country have an obligation to guarantee that this right is enjoyed without discrimination (scope, content, nature and monitoring).

place of last resort, how an applicant ought to choose between the different options (conciliation/pre-trial proceedings and judicial settlement)? There is a great difference between two parties resolving a water conflict/dispute by reference to arbitration, on the one hand, and by judicial settlement, on the other hand.

Our third factor deals with the role of conciliation. The use of conciliation/pre-trial proceedings, it must be said, is not easily ascertainable in the field of water. It is not easy to find out what has happened, when discussions have taken place, where conciliation/pre-trial proceedings has taken place. Necessarily these procedures function outside the glare of public scrutiny. They have to take place in camera if they have to be successful. It is apparent that there are numerous examples of successful informal conciliation/pre-trial proceedings involving water disputes. In light of the tribal settlement in the Arabian peninsula, the Sheikh⁽⁶⁸⁾ (the headman or head of the district) was the architect of the process for resolving most of water disputes⁽⁶⁹⁾. The 'water Sheikhs' offer a tremendous range of institutional designs, which provides a degree of flexibility for the challenges facing water allocation into the twenty-first century. However, often the Sheikhs have also suffered by a halo effect, a romantic perception, which means Sheikhs have sometimes remained unquestioned and lack in-depth water related analysis. The 'water Sheikhs' continue to be an ignored reality in relation to their effective and real operability. We have sometimes to acknowledge the bucolic exaltation to which they have been subjected to, under a so-called modernity, as remnants of the past. We have to overcome this view. The Sheikh can provide a useful and critical building block in resolving water rights conflicts. Rather than use a court system overloaded with a backlog of water cases and somewhat inefficient, it is advisable to establish a pre-trial procedure/conciliation within the country's legal system (i.e., the Sheikh institution).

(68) The Sheikh is the head of a tribe, or a community. See generally about the role of water Sheikhs builders, Francesca de Châtel, *Water Sheiks & Dam Builders: Stories of People and Water in the Middle East* (Transaction Publishers, 2007).

(69) See generally, John Craven Wilkinson, *Water and Tribal Settlement in South-East Arabia: A Study of the Aflj of Oman* (Oxford University Press, 1977).

A fourth factor that emerges is the broad recognition of the importance of a multidisciplinary approach to the settlement of water disputes. Multidisciplinarity means combining the disciplines of many different branches of law. One applicant's dispute on the water law may be another accused's dispute on the law of real and personal property. Frequently, water disputes do not have a substantive center of gravity which allows them to be characterized as a dispute about this or that aspect of domestic law. Particularly in the past two decades, we have learned of the need to cross-fertilize different substantive areas of general law. This is one reason why many remain skeptical about the need for a water court because the circumstances in which two parties will agree that a dispute is a water dispute will be few and far between. Disputes about water are inevitably disputes about general law. This brings us to the last factor.

The fifth point that emerges is that each water case, each dispute, necessarily turns on its own merits (i.e., facts and circumstances). There is no general template that can be applied to the different disputes over water. There is no particular template as to the consequences which the application of particular engineering, hydrologic, agricultural or economic considerations may bring to bear. It would be a mistake to suggest that there is a general template in terms of the application of the rules which may govern a particular dispute.

The five factors we have highlighted (which are not intended to be exhaustive) tend to be the ones around which discussion coalesces when an applicant decides which route to embark upon (pre-trial proceedings/ conciliation or trial). Most current rules and statutes were never able to surpass the tribal settlement pattern to the water supply and Water Tribunal in the field of conflict resolution in water⁽⁷⁰⁾. The role of ancient

(70) The study of water is complicated by the widely differing systems that exist in the several countries. No attempt is made here to draw together and explicate the complete law of any particular country. This paper states the general rules that apply within major systems of water law and attempts to give examples of special rules applicable in particular countries. Although most western countries which have some version of the prior appropriation doctrine have statutory procedure for stream adjudications, the manner that each country has tried to

sustainable water institutions is more pervasive than ever in deciding the extent to which water can be allocated and used for particular purposes. Because Arab countries typically have been slow to incorporate sustainability and other public concerns in their water laws, ancient sustainable water institutions have filled some of the gaps. Not only dispute settlement mechanism, but provisions that protect waterways from being filled in or drained, and laws like Valencian ordinances, profoundly influence how, when and where water is used.

III - Outlook in the Twenty-First Century

The modified version of the Water Tribunal in Valencia is 'almost sufficient' to timely resolve water disputes in most Arab countries, if this experience is showcased adequately⁽⁷¹⁾. Other Arab countries' adjudication procedures should be reviewed carefully to identify ways to improve the 'water adjudication process' but should not be adopted without thorough consideration of all consequences. This process would be similar to the tribal settlement pattern to the water supply that exists in most Arab countries (i.e., the Sheikh institution). A Valencian-type water court is an effective model for most water disputes. The water court should retain all of the administrative duties under the Valencian ordinances, including hearings for new appropriations and for changes in existing rights. Removing any of the administrative functions from the Water Tribunal would require a major, costly restructuring of the

= address the problems inherent in the process has varied substantially and there are very significant historical differences among countries which minimize the value of the precedent of other jurisdictions and make comparisons difficult. "A majority of the western states are involved in general stream adjudications. These complex and lengthy lawsuits are among the largest civil proceedings ever to be litigated in state and federal courts," at (visited August 20, 2010).

(71) It is worth mentioning that in spite of all its interesting issues and its great practical importance, the topic of ancient sustainable water institutions is a field in which there is a dearth of supplemental sources that are useful to scholars. A few ancient voluminous treaties are available to aid the practitioner in finding answers to difficult questions. But there is no basic source. This paper is a modest effort for a supplementary source relating to the study of Water Tribunal.

judiciary⁽⁷²⁾, increased costs to the applicant and material increases in caseloads for ordinary courts.

In 'water adjudication process,' there will be a marked distinction between the proceedings which precede the trial and the trial itself. In the pre-trial proceedings the issues of fact will be defined and the parties will be given notice of them. At the trial these issues will be judicially heard by the water court⁽⁷³⁾(or water tribunal⁽⁷⁴⁾)and determined.

The pre-trial proceedings and the trial should be smoothly integrated into the current structure of the country judiciary, institutional and administrative structure. There should be no any major revisions of the water related laws or modifications of the administrative or adjudicative duties of the courts. Any legislative changes should be focused on reducing specific impediments to efficient water adjudications and not to any change of institutional structure. Representatives of the executive, the legislative and judicial branches should review and determine adequate resources for the water courts to effectively, efficiently and timely complete water adjudications. The settlement reached by the parties before the trial will be proposed to them by the

(72) Water adjudications involve thousands of water right owners which can greatly impact the resources of the court if the procedure is expedited.

(73) In New Zealand, a dedicated Environment Court exists, while in the state of Colorado there is a Water Court. The Water Right Determination and Administration Act of 1969 created seven water divisions, each of which houses one of the seven major river basins in Colorado. See Colo. Rev. Stat. 37-92-201 (1999). In Colorado, special division of a district court with a district judge, called the water judge, to deal with certain specific water matters principally having to do with adjudication and change of water rights. In Wyoming, it is initially handled by the executive branch of state government, instead of the judicial branch, under the Board of Control. Water court decisions of the state of Colorado are appealed directly to the Colorado Supreme Court. See Colo. Rev. Stat. 13 - 4 - 102 (1) (d) (1999). SB 76 divided the Montana Water Court into four divisions according to the geographical drainages of the state (sections 3-7-101 and 3-7-102, MCA).

(74) The Water Tribunal in South Africa replaced the Water court in 1998. The Water Tribunal is an independent body which has jurisdiction in all the provinces and consists of a chairperson, a deputy chairperson, and additional members. It has jurisdiction over water disputes. Members of the Water Tribunal must have knowledge in law, engineering, water resource management or related fields of knowledge. They are appointed by the Minister on the recommendations of the Judicial Service Commission, the body which chooses judges, at < > (visited August 20, 2010).

Sheikh. If the proposed settlement by the Sheikh is rejected, the parties will take the matter to the water court.

Pre-trial proceedings or conciliation

Today, as a result of altering relationships with the outside world, the whole picture of traditional life in most Arab countries is radically changing. The need for the wasteful tribal mechanisms for maintaining internal hydrological balance is fast disappearing, while the long-established Sheikh tradition almost died with the centralized government. It is inconceivable that 'Sheikh and state' can ever again be reunited in the original manner, whatever titular forms future governments may adopt.

An adaptation of the tribal settlement pattern to the water supply is necessary to better determine whether there is a need for additional adjustments, or customization. Just as it would be a foolish legal adviser, and an arrogant one, who was prepared to dismiss the whole of the tribal settlement in most Arab countries because it was tribal, so it would be a poor water adviser who turned his back on the past and considered the 'water Sheikh' as nothing more than a symbol of 'backwardness' and the sooner forgotten the better⁽⁷⁵⁾. Doubtless if one was establishing dispute resolution in water from scratch one would not now attempt to develop it with Sheikhs. In this connection, it is worth pointing out that the experiences of dispute resolution in water with the long-abandoned Sheikh should not discourage efforts to study its potential in the Arab region, where only a little effort may be sufficient to bring it back to the field. True, one cannot expect to restore the Sheikh system to the pristine glories of a century and half ago, but at least resolving water rights conflicts may be possible at relatively low cost, and this would have the advantage of preserving some of the better aspects of communal village organizations which are now rapidly disappearing in face of rapid

(75) The Dutch 'waterschappen,' or water boards, is an example of customary arrangement for water management that has become, de facto, legislation. See Tarek Majzoub, Palesa Selloane Mokorosi, Maria del Pilar Garcia Pach?n, Kees Leendertse and Damien Indij, Streams of law 30 (Cap-Net/UNDP, 2010).

urbanization⁽⁷⁶⁾. Furthermore, a policy of Sheikh system improvement, if also coupled to restrictions on the overuse of water, would have the merit of diminishing the risk of upsetting hydrological equilibrium in the individual drainage basins, and thus allow time for properly planned water dispute resolution schemes to be investigated.

The pre-trial proceedings will remain consistent in its tribal philosophy: to entrust the water supply to the ordinary grassroots farmers (or district level people), for the sake of the ordinary grassroots water users themselves and the water resources. Effective participation will be hampered by lack of proper representation of farmers on canal and sub canal councils⁽⁷⁷⁾, and farmer involvement in water planning. Therefore, it is necessary to create an administrative process administered by the farmers and the Sheikh, and resort to the water court when the process fails. The main features of the pre-trial conference should be four: economic, simplicity, verbal, and speedy. Matters can only be postponed for at most 28 days, and only due to failure to appear by the accused.

The first step in the pre-trial proceedings will be the claim. The claim will state the nature of the applicant's water claim (e.g., to protect or change an existing water right, or adjudicate a new water right) and his demand for relief. Then a summons will be sent to the accused, informing him that a complaint was lodged against him and calling him to answer the claim. If he does not want to be 'sentenced' by default, the accused must enter an appearance by sending an answer, or response to the claim. The applicant can send a reply to the answer.

(76) While it is true that there must be a rational development of the solar desalination plants, it is equally important that this should not be at the cost of the rest of the traditional water resources; the Sheikh system must be fostered. It is precisely because the oil reserves of most Arab countries appear to be limited that it is imperative that such funds as are available should be invested, and be directed at maintaining a sustainable water structure that is not doomed to collapse once oil revenues begin to run out. The fact that this can only be achieved at the cost of frustrating some of the water ambitions of the desalination companies is, of course, a basic economical problem.

(77) Agriculture accounts for over 83% of water use in the Arab region, see Ayman F. Abou Hadid, Agricultural water management, in AFED 56, supra note 1.

The aim of the pleadings is that the parties should themselves develop a single precise issue of fact and of law. If they fail to do so, the Sheikh may call a pre-trial session, at which both sides are present, to try and limit the issues and obtain admissions that will avoid unnecessary proof. The pre-trial session, at which the Sheikh sits, will consist in one continuous hearing.

The Sheikh will handle a majority, if not all, of the water cases. Most pre-trial conferences will result in the settlement of the case without trial, the Sheikh considering that the case is a clear one which needs no trial. If the case is not settled before trial, the applicant requests the water clerk of the water court to put the case on the docket to await trial. Our hunch is that a significant number of water disputes should be resolved 'in the shadow of the law.' It is hoped that the rate of trial will be generally less than 10 percent.

Although judicial settlement is and should be a last resort, the threat of recourse to a court may be sufficient to encourage parties to reach agreement. The mere existence of a water court, which can be seized at the initiative of an applicant, can be enough to bring the parties together into agreement. Similarly, the utility of pre-trial conference should not be underestimated in terms of its potential, it may be sufficient to bring parties together and dispose of a dispute. This is because parties understand that once they have gone beyond pre-trial conference, they have, in effect, lost control of the process, and hence the outcome. Often the mere possibility of such resort may be sufficient to bring about a resolution of a water dispute.

The Trial

The first step in the trial consists in the statements by both parties of their side of the case. Then the plaintiff must present evidence (which may be both oral and written) in support of his claim⁽⁷⁸⁾. The defendant's lawyer is permitted to cross-examine the witnesses for the plaintiff. The defendant then presents his evidence in the same manner, and his

(78) See Giner Boira 37-38 and 47-52, supra note 2.

witnesses can be cross-examined by the plaintiff's lawyer. Then both parties make their closing submissions before the water court. Then the judgment by the water judge takes place. The judgment decides whether a plaintiff has complied with the law and is entitled to use a certain amount of water for a certain use with a defined priority, and ordinarily requires the losing party to pay the costs of justice.

Either party may appeal against such judgment. The party needs to have firm deadlines to appeal or comment and penalties when these deadlines are not met. There is no new trial, no witnesses, in the appellate court. The appellate judgment examine the minutes of the case in the first instance court and the briefs written by the appellant and the respondent in support of their cases. The appellate court usually examines only problems of law, and does not question the issues of fact as established by the judge of the lower court.

Suggested jurisdiction of a water court

The revisited two-tier water court will be a specialized court within designated water jurisdiction. There will be probably two sorts of judges: elected water judges (or lay judges), and/or appointed judges in the first-degree water court⁽⁷⁹⁾. As disputes relating to the use of water are not

(79) In Colorado, each water division is staffed with a division engineer, appointed by the state engineer (See generally, Daniel S. Young & Duane D. Helton, Developing a water supply in Colorado: The role of an engineer, 3 U. Denv. Water L. Rev. 373 (1999-2000)); a water judge, appointed by the Supreme Court; a water referee, appointed by the water judge; and a water clerk, assigned by the district court. Water judges are district judges appointed by the Supreme Court and have jurisdiction in the determination of water rights, the use and administration of water, and all other water matters within the jurisdiction of the water divisions. All water courts operate under a standard case definition approved by the Supreme Court in 1981. This made possible the establishment of water court filings standards, at (visited August 20, 2010); also at < > (visited August 20, 2010). Within each water division in Montana, a water judge presides, appointing water masters to assist in the adjudication process. A water judge must be a District Court Judge (current or retired) from a District within the water division (sections 3-7-201 and 3-7-301, MCA). Water judges cannot preside over water claims beyond the boundaries of their divisions (section 3-7-501, MCA). The Chief Justice of the Montana Supreme Court appoints a Chief water judge to supervise all division water judges and guide

purely 'legal,' they are to be addressed in the context of agricultural, economic and political considerations. Judges must be prepared to engage fully with engineers, scientists and economists, as well as the political interests represented by the local communities and the businesses which are involved in a particular outcome.

Lay judges are elected by the water management association, water users association, water rights owners, or farmers; they are ordinary grassroot water users, unpaid volunteers and work part-time. To judge a case, one lay judge must sit. He is assisted by a water clerk, who performs the administrative work of the water court.

Appointed judges are full-time paid judges, appointed by the judicial authority from judges of at least ten years seniority. Judges can hire full time referees to go visit sites, inspect applications to speed up the process and save money in a timely fashion with less burden. It is absolutely imperative that referees and judges are trained and educated to understand water law and processes so as to be able to rule based on fact and not for the purpose of cleaning the calendar. An appointed judge may sit single.

The jurisdiction of judges' court will not deal with non-related water matters, nor estates. Its only purpose will be to decide whether an applicant has made a valid claim for water under domestic water law or legislation. The lower court will judge minor trespass to water and could impose a fine. If the appellate court finds there was no error by the first instance judge, or that the error was harmless (i.e., does not affect the

= the statewide adjudication. Ultimately, the Montana Supreme Court monitors all water judges, water masters, and water court personnel (sections 3-7-204 and 3-7-221, MCA). It is at the Chief Water Judge's discretion to assign cases to the division judges. The division judges have historically been used to a limited extent with cases being assigned in instances where the Chief Water Judge might have a conflict or other similar situation. Currently, the Chief Water Judge handles a majority, if not all, of the cases.

judgment), it affirms the judgment. If it finds an error, it can reverse the judgment in favor of the appellant, or it can order a new trial by the lower court.

Conclusion

This paper focused on the Water Tribunal of Valencia in Andalusia, where ordinary grassroots water users have been working together for over a thousand years in order to create successful institution for self-governance with regard to using scarce water resources. The Water Tribunal conducts its business in an entirely different manner from any ordinary tribunal or court, and focusing on how this Tribunal has come to exist and continues to flourish⁽⁸⁰⁾ exposes weaknesses within the ordinary version of justice.

Moreover, changing societal values, increasing water demands, growing water use conflicts, and link to poverty reduction and economic development provide impetus to adopt the water court; it remains a promising option to better use and share water to balance economic, environmental, and social aspects that underpin sustainable development.

It is in this context that institutions for settling water disputes come to the forefront. In particular, the water court presents a particularly strong and attractive combination on the merging of Water Tribunal in Valencia and 'water Sheikh.'

In many Arab countries, the need for finite water resources continues to escalate as the countries' growing population and economy demand reliable water supplies for both a greater amount and variety of

(80) Vicente Giner Boira underscores the international scope of the Water Tribunal (see Giner Boira 50-52, *supra* note 2). Nevertheless, in many countries and states the water court is absent (e.g., state of Louisiana).

uses (i.e., domestic, industrial, and agricultural)⁽⁸¹⁾. When water users seek to develop new water rights, conflicts over the allocation of these scarce resources arise. The forum for resolving water rights conflicts will be most often the water court⁽⁸²⁾. This court will offer a tremendous range of institutional designs, which will provide a degree of flexibility for the challenges facing water allocation into the twenty-first century. It is for this purpose that most Arab countries might consider establishing this particularized form of 'water justice.'

In the light of the above, there is an old adage: 'Historia est testis temporum, lux veritatis, vita memoriae, magistra vitae, nuntia vetustatis'⁽⁸³⁾. Looking at the past⁽⁸⁴⁾ is essential if Arab countries are to actively create promising water future. Nevertheless countries' debates are often mired in syndromes which, unknowingly, cut them off from their celebrated past.

Arab countries can be reactive or choose to be pro-active. To do nothing is likely to be an invitation for a dysfunctional dispute settling mechanism. To be pro-active carries awesome responsibilities and can be

(81) See Christopher J. Perry and Julia Bucknall, Water resources assessment in the Arab world: New analytical tools for new challenges, in *Water in the Arab World: Management perspectives and innovations* 97 et seq (N. Vijay Jagannathan, Ahmed Shawky Mohamed and Alexander Kremer eds, The International Bank of Reconstruction and Development/The World Bank, 2009).

(82) The Latin American Water Tribunal is an ethical institution committed to preserving water and to guaranteeing its access for current and future generations, as water is a human right. Since its launching in 1988, the Tribunal heard 58 contentious cases and delivered 250 advisory opinions. The Tribunal held five hearings in Latin America: San Jose in Costa Rica (August 2000, March 2004), Mexico City (March 2006), Guadalajara (October 2007), and Guatemala (September 2008). It held also, with the support of Heinrich B?ll Foundation, a hearing in Istanbul (March 2009) to address the issue of damming the Tigris and Euphrates watercourses. In furtherance of its task the Tribunal is guided by the following principles: harmonized coexistence with nature, ecological security, water security and good water governance. See the web site: (visited August 20, 2010).

(83) History is witness of times, light of truth, life of memory, teacher of life and envoy of antiquity.

(84) For example, the Council of Wise Men of the Plain of Murcia in Spain, available at < > (visited August 20, 2010); and see *Handbook of ancient water technology* (?rjan Wikander ed., 2000) 3-93 and 183-317, supra note 10.

frightening, but Arab countries need to tap their rich history of sustainable water institutions⁽⁸⁵⁾ to reduce the potential for conflict and deliver immediate water benefits⁽⁸⁶⁾.

(85) See generally, S.N. Al Habsi, Falaj Daris: The maximum utilization of the available groundwater in the Wadi Al Abyadh catchment in the Nizwa region (Sultanate of Oman, M.Sc. in Water Resources, Centre for Arid Zone Studies, University of Wales, Bangor, United Kingdom, 1992); H.S. Al-Balushi, A study of the hydrological and social aspects of Falaj Al-Iaqui, Ibri (Sultanate of Oman, M.Sc. in Water Resources, Centre for Arid Zone Studies, University of Wales, Bangor, United Kingdom, 1995); Saif Bin Rashid Al Shaqsi, Aflaj management in the Sultanate of Oman: Case study of Falaj Al-Hamra (Dawoodi) and Falaj Al-Kasfah (Aini) (M.S. in Water Resources, Centre for Arid Zone Studies, University of Wales, Bangor, United Kingdom, 1996); P.W. English, The origin and spread of Qanats in the Old World, 112-3 *American Philosophical Society* 171-175 (1968); J.C. Wilkinson 97-121, *supra* note 69; J.C. Wilkinson, The organisation of the Falaj irrigation system in Oman 1-47 (1974); UN-ESCWA, The Omani Aflaj: An ancient indigenous IWRM system (2006); Ministry of Regional Municipalities, Environment & Water Resources (MRMEWR), Aflaj in the Sultanate of Oman (Sultanate of Oman, Muscat, undated); Ministry of Regional Municipalities & Water Resources (MRMEWR), Aflaj Oman in the world heritage list (Sultanate of Oman, Muscat, 2008).

(86) Translating the right to water into specific legal obligations means that countries need an alternative to the weighted-caseload model to better guarantee this right and accelerate the pace at which such cases can be resolved.

