Blind Modernism and Zionist Waterscape

The Huleh Drainage Project

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Huleh Lake, 1923.
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My aim in recounting this history is to shed light on a foundational event in the creation of what I refer to in this essay as the Zionist waterscape. The conditions that set the stage for the initial purchase of a large tract of land in the Huleh Valley in 1934, an area about one-third the size of the entire Valley, can be traced to earlier developments under Ottoman rule. I touch on some of these earlier histories in order to set the context for the purchase of the Huleh concession. In 1934, the rights to "reclaim" and drain the swamps were purchased by the Palestine Land Development Company (PLDC) from the Syrian based Salam family's agricultural company (headed by Selim Bey Salam) who had originally acquired the concession in 1914 under Ottoman rule. The PLDC was a Zionist land purchasing company. The final drainage

project was not completed until 1958 after much negotiation, political and financial difficulties and conflict.[1] The importance of this project lies in the fact that Huleh can be thought of as an emblem of later developments in the creation of what might be called Zionist nature. I adapt the idea of a waterscape from Erik Swyngedouw.[2] In this essay I use the term to refer to water resources, their technologies, and their arrangements in space. The existence of the particular waterscape in Israel-Palestine is a precondition for what I refer to as Zionist nature. I see Zionist nature as constituting a specific kind of nature which, in theory, is the outcome of an exclusively Jewish project. But in reality, as I will explain, this nature has been shaped and reproduced through ongoing interactions and contestations between Zionist circles and with other groups, with nature and in relation to the wider world. In this way, the concepts of the waterscape and of Zionist nature bring together the social, natural and technological worlds under one historical-geographical umbrella.

The proposal to drain the Huleh Swamp can be looked at as the beginning of Israel's long struggle to transform the water resources and nature in Palestine in a way that conformed to Zionists preconceptions about nature, the land and the people of the region. Yet, these preconceptions which were bound up with the meanings that the land held for the Jewish people and their hopes for redemption, was shaped in profound ways by existing social-ecological relations. These relations formed a dynamic process of interaction between, the Arab farmers and shepherds who relied on the Huleh swamps for their livelihood, Ottoman and later British mandate bureaucrats in charge of imposing certain legal ordinances or reforms, and early Zionist settlers as well as the ongoing geopolitical context that shaped the experience of people in the region during the late-Ottoman and mandate periods. The way in which these socio-ecological relations shaped the drainage project have yet to be fully accounted for in discussions of the Huleh Valley. The project was heralded as one of the chief wonders of the Zionist project. Even today, when the extent of ecological damage wrought by the drainage project is well-known and uncontested, the Zionist national narrative still celebrates and represents the project as a key part of the landscape history of Palestine. It is seen as a heroic feat, crucial in both material and meaningful ways in showing the possibility of harnessing the water resources of the Jordan Basin to the intensive agricultural development envisioned by the early Zionist pioneers. Additionally, the conventional Zionist history of the Huleh Valley celebrates what was seen as the courageous efforts of youthful, self-sacrificing Jewish idealists in the dangerous and difficult task of defending, protecting, creating and expanding Jewish settlement in contested frontier regions. As Sufian notes, it holds a key place in the national landscape history as part of a "glorious Zionist past", part of the great feat undertaken by Jewish labour to transform the landscape into a sanitized, hygienic, productive landscape, capable of providing the conditions, hope and potential for "…a promising future and a powerful reminder of a pioneering past."[3]

In retrospect, the actual draining of the Huleh marshlands concretized the idea of re-organizing Palestine in a way that reflected and expressed ideas and ideologies that were deployed to justify and carry forward a colonial project. They were a way of bringing together ethnic prejudice, with the agricultural imperatives of Zionist ideology in the creation of Zionist nature. It prestaged, for example, the later development of Israel's National Water Carrier to bring water for the use of the development of Israel both as an urban society and for agriculture and industry. On a purely material level, the draining of the Huleh marshlands set in motion the material preconditions first for the labour Zionist government agricultural and settlement imperatives. It was a turning point in Palestine in terms of the perceived possibilities with regard to the construction of Zionist nature, prevailing cultural attitudes, and also the economic, social and political organization of the region.

To comprehend the reverberations of the history of the Huleh drainage project in the present and in the waterscape that today characterizes Israel-Palestine, it is necessary, I believe, to view social and ecological processes through which the project came about as one unified historical process. In this way it is possible to examine the way in which social and ecological relations interacted in a variety of ways to produce a particular, unpredictable outcome out of which contestation over the meaning of Zionist redemption was generated (e.g. agricultural productivity vs. ecological integrity). In doing this sort of analysis, I am following in the footsteps of authors who study the Middle East that claim that the histories of specific social groups as well as of nature are not hermetically sealed separate processes to be understood through separate analytical lenses. Examples of such efforts include the work of Sandy Sufian[4] and Timothy Mitchell[5] who have, in different ways, developed critical understandings of the history in the Middle East that encompass both the social and the natural world. As Sufian says, her aim is not only to examine "…the physical features of the land, but also its engagement with societal activities…"[6] Similarly, Mitchell has suggested the importance of bridging the gap between the world of social intentions and seemingly asocial, passive natural environment. His analysis looks at how natural, technical, biological social elements interact and shape one another. Moreover, there are authors such as Zachary Lockman[7] who do not examine socio-ecological relations but, nevertheless view historical trajectories of the Palestinians and the Israelis as shaping one another. In his words, he is engaged in a study of working class history in Israel-Palestine that views these classes not as "self-contained and objective" categories, but as relations which are "…constituted by many other social relations and practices". [8] These authors see social/national groups and nature as mutually constitutive, produced in relation to one another and intersected by a wide variety of local and wider social relations rather than produced by an entirely internal, inherent and supposed "natural" historical logic.

An analysis that focuses on relations between elements rather than on the elements as bounded entities sheds light on the unpredictable, unexpected, historically and

geographically contingent processes that have conditioned Zionist development in profound ways beyond the initial drainage of the Huleh marshlands and beyond the supposed utopian intentions of the early Zionist pioneers. A focus on relations, in turn, places emphasis on the practices through which such relations are enacted in ways that are both material (effecting and constrained by the material world) and meaningful (ideological, symbolic, representative) and are always power-laden. Examples of such practices include the early attempts at drainage by in the Huleh Valley in the late 18th and early 19th centuries, Jewish adaptation of Arab papyrus burning techniques to dry the soil in preparation for drainage, the use of papyrus by the Arab inhabitants of the Huleh Valley for mat and basket production, etc. Far from fulfilling a natural, pre-ordained process of redemption with respect to Jews and the land of Israel, such an analysis shows that this supposed process of redemption was cobbled together in response to a variety of contradictory social and natural relations that led to the final outcome. Afterall, one of the key obstacles delaying the project was that it was extremely costly. When the final drainage occurred in 1958 malaria had already been largely eradicated and many people, Zionists and non-Zionists alike, were correctly warning of the lack of fertility of the peat soil underneath the swamps. Yet, this project still went ahead, carried forward by a variety of politically strategic considerations over delineation of Israel's northern border. The consolidation over control of the headwaters of the Jordan River is comprehensible in relation to the larger geopolitical influences and historical-geographical conditions in the Huleh that were shaping the situation at the time. Seeing the drainage project simply as a result of rational economic and public health considerations or even of ideological fervor on the part of Zionist pioneers is not adequate to understand what happened and its socio-ecological consequences. All of these considerations and more must be understood as shaping the story of the drainage project.

The current contestations over how to reclaim this landscape actually points to a reworking of the concept of redemption, a central idea within Zionist ideology. The interest of this process, from my point of view, is the way in which it continues to separate out social and natural history as if they were governed by separate forces. The conventional Israeli environmental narrative states that hurried Zionist development projects wreaked ecological havoc but that this was justifiable under difficult and hostile circumstances.[9] Yet, it seems to me, that nature was not so passive and neither was it so easy to erase the previous socio-ecology. In fact, these conditions laid the foundation for how, when and where the drainage would be carried out. They also have consequences for understanding exactly what redemption means in the contemporary period: does it mean restoration to what was, a supposed original/ equilibrium state, in which a climax community of papyrus and native oak represented the highest stage of ecological development? Can we conceive of redemption in this way, as an asocial landscape? The story of the Huleh drainage project seems to point to the need to consider not just ecological conditions, and how to restore them as if they had simply sprung up out of nowhere, but to understand how the ecological

conditions interacted with existing groups in the region in a dynamic process which continues to be obscured even by discourse about ecological integrity and restoration. This blind spot has consequences for the continued fragmentation of people, land and water, a striking feature of Israel's geography of occupation and dispossession.

Pre-drainage socio-ecology

It is remarkable that in discussing the Huleh there seems to be little reliable material in English that gives a sense of the texture and way of life of the groups that were dispossessed and displaced from the Huleh basin beginning with the transfer of the Huleh concession from the Salam family to PLDC in 1934. More can be discerned from these writings about the kinds of cultivation and crafts in the area, than can be discerned about the cultural meaning and significance of the swamps to the people of the region. Paradoxically, these writings tell much more about the attitudes of the colonial explorers towards the socio-ecological conditions of the region and the meanings that this region held for them than about the various inhabitants of the region and their own understandings. Sandra M. Sufian's work on the intersection of technology, disease, nation-building as they came together in the Huleh drainage project is the most reliable source that I have come across. Yet she writes very little about the complex practices, both material and meaningful, through which the socio-ecology of the Huleh Basin was produced prior to Zionist settlement. As she herself admits, "…the paucity of Arabic sources on…"[10] the history of malaria in Palestinian communities poses difficulties . I presume that such a situation extends to the study of Arab Palestinian communities in the Huleh region prior to drainage in general.

Much of the early writing on the Huleh Valley is seen through the lens of the Valley's potential economic agricultural productivity, in terms of its ability to provide water for the drier parts of the land and as part of a larger water development scheme for the water of the Jordan Basin, as a malarial threat as well as seeing it as a strategic asset in the delineation of Palestine's northern border.[11] Thus, much of the writing seems to be part of an overall attempt to produce an image of the existing Arab inhabitants as lacking any coherent identity or long-standing connection to the Huleh region. Between the period of the Mongol invasion at the end of the 13th century and the 1830s when Ibrahim Pasha led the Egyptian occupation of the region the Bedouins were seen as having taken hold of the region like a wild invasive species, undermining the possibility for any "higher levels" of sedentary agriculture to take root.[12] It was believed that, through the intervention of modern agricultural, irrigation and hygiene technologies, the land could be restored to the ancient fertility that had characterized it during the Hellenistic, Roman, Byzantine and early Arabic eras.[13] The Ghawarna tribe that settled in the region in the 1830s as a consequence of the Egyptian Occupation,

were perceived by the British and Zionist colonists as being in a transitional evolutionary state, between a pastoral lifestyle and a settled farming lifestyle, on a hierarchical scale of development, incapable of harnessing the resources of the Valley to productive use. The words of Y. Karmon of Hebrew University in his 1953-4 article written for the *Israel Exploration Journal* express these sentiments:

> The low conditions of life combined with disease to turn all the settlers in spite of their different origin into a common type: the Ghawarina – sick people, lacking in force and will. In the merciless struggle between man and nature in the Huleh Valley, nature remained the master. The Arab settlers did not possess the knowledge and the means to subdue nature and to impose their will upon it. This task remained for the Jewish settlers who came to the Huleh Valley in 1939.[14]

In fact, The Huleh, itself, was a key node in the migratory route of wildlife from the three continents – Africa, Asia, Europe, and served as a natural filtration system for the water flowing into the upper Jordan River. Huleh was one of the oldest freshwater lakes in the world and was the site of the some of the earliest settlements.[15] Most authors seem to agree that the inhabitants of the Huleh region consisted of an eclectic mixture of people - Bedouins and peasants from various parts of the Middle East - all packed together under the label of the Ghawarna tribe.[16] As mentioned earlier, the reason for the diverse array of people living in the Huleh had to do with the immigration of settlers to the region after 1832 as a result of the Egyptian Occupation led by Ibrahim Pasha. The Egyptian Occupation led to significant economic, political and social restructuring. For the Huleh region this brought a measure of security and protection from Bedouin invasions as well as tax and land-reform, distributing state resources including land to Bedouin shepherds.[17]

These conditions provided an incentive for renewed agricultural settlement in the Huleh region. Thus, a community made up of a mixture of peasants who had come from the nearby mountains to try their hand at establishing more independent agricultural arrangements, free from the oppressive rules, norms and hierarchies of the surrounding mountain villages, as well as Egyptian army deserters, escaped slaves, a host of "foreign settlers" and, more generally what was thought to be an motley crew of outcasts and riff-raff, the only people who had so little to lose that they were willing to risk contracting malaria. Much evidence of the Egyptian origins of this community were surmised from their speech, way of constructing huts out of reeds and mud, buffalo raising practices, the planting of shade trees and "…in the occurance of the name el-Masri' or 'Abd'".[18] The settlements apparently continued to attract new settlers including Algerian refugees who came after the failed 1847 rebellion against French Occupation. These Algerian refugees eventually established the village of Salihiya.[19]

The agricultural methods of the Huleh inhabitants, Sufian explains, contrasted with Western capitalist imperatives of intensive agricultural cultivation and irrigation in which natural resources were seen solely as commodities. Rather than striving to conquer the land, Sufian explains, Arab farmers, lacking capital intensive technologies, saw themselves as working with the land, within its constraints and accepting its material limits. Thus, they did not depend on "capital from abroad", as did the Jewish settlers. Instead the peasants relied on naturally-produced inputs. In Sufian's words, "…*fellah* sharecropping had its own logic, privileging communal economic security over immediate monetary rewards."[20] The Jewish farmers in the region utilized mixed farming methods, integrating the raising of domestic farm animals with crop cultivation. Primarily, however, Jewish farmers cultivated feed for their cattle and poultry.[21] The Arab farmers of the region's primary livelihood activities involved the raising of water buffalo, chickens and geese and fishing for domestic use, cultivating a limited number of crops including rice, millet, wheat and Indian corn. The main source of income came from harvesting papyrus which was woven into various kinds of mats and baskets that were sold on the market as well as used to build homes, as ornaments for the inside walls and as rugs. These mats were highly prized by the people of the Huleh and throughout the region so much so that the Zionists, when initially contemplating the purchase of the Huleh concession, thought they might be able to take over the craft creating a class of Jewish basket weavers, which, in their view, would be made into a higher value and economically productive commodity in the hands of Jews.[22]

Another common practice of the inhabitants of the Huleh involved the burning of papyrus for use as fertilizer to prepare the ground for the next season. When the Zionists undertook the initial drainage process, they adopted this technique to dry out the soil in preparation for digging drains. The Arab inhabitants of the Huleh also used parts of the papyrus for fuel and the rhizomes were used for medicinal purposes. Papyrus, thus, was central to their livelihood and was a highly prized resource. Moreover, obtaining the papyrus from the center of the swamps in which there was no shade protection and in which wild boars roamed was a difficult task that was considered praiseworthy. At the time the Huleh region had the most papyrus in the world. Another small source of income for inhabitants of the Huleh came from acting as guides for the wealthy classes during duck hunting season.[23] The water buffalo of the Huleh were also a defining feature of the socio-ecology. They thrived in the Huleh region, grazing and watering in the swamps, requiring very little labor to maintain them. Indeed, Sufian tells us that "…of the 5,000 buffalo in Palestine in 1930, most of them were found around the Huleh lake".[24] Overall, the swamps played a central role in the relationship between society and nature in the Huleh region.

Thus, in sharp contrast to British and Zionist attitudes about the swamps as being merely commodities in the provision of water or fertile land, or as repositories of disease, the

swamps held a meaningful and material place in the lives of the peasants of the Huleh Valley. Their relationship with the swamps, doubtless involved concerns and struggles with malaria, but they also saw the swamps, at times, as capable of containing healing properties that could cure physical and mental illness.[25] In recognition of these assets, the inhabitants of the region named the area "watering place" (*al Sheriat al Kebira*)[26]. Moreover, the productive activities including the harvesting of papyrus and the grazing of buffalo influenced and produced the ecology of the swamp, an ecology seen by ecologists in retrospect as being in a climax state of equilibrium, as much as the swamp produced the society that depended upon it. They had grown up in relation to one another. Yet these relations were simultaneously influenced by the larger geopolitical and economic changes that were occurring at the time.

In 1858 the Land Code imposed by the Ottoman Empire (as part of the larger reform project enshrined in the Tanzimat), was adopted in an attempt to adjust to the economic and political encroachment of European powers. Broadly speaking these reforms promoted centralization, standardization and modernization throughout the Empire. The Land Code unintentionally created the conditions for the development of a private land market and, hence, speculation and the gradual dispossession of peasants from land which had previously been managed according a system of usufruct rights. Failed attempts to stimulate intensive agricultural production and significant economic growth triggered further reforms which allowed non-Ottoman subjects to own limited amounts of land.[27] New classes of landowners/tax collectors were empowered by these reforms. In the Huleh region most of the lands were sold to Syrian and Lebanese merchants. Though the peasants of the Huleh region were aware of these new land-registration laws, many of them chose not to register their land in their own names out of fear of being drafted into the Ottoman army.[28] For a time, under the new system, peasant farmers in the Huleh Valley continued to farm in sharecropping arrangements with large landowners as they had previously. It was at this time that cotton was introduced as a crop in the area in an effort to fill the niche left by the interruption of the American cotton export trade due to the American Civil War. [29] The cotton growing experiments in the 1860s led to the digging of canals and drainage channels by peasants which partially drained the area and allowed for the establishment of new settlements. Under the land reform system, Jewish settlers soon began to purchase land in increasing amounts. The sales often happened without the knowledge of the tenant farmers who only found out about the sales when Jewish farmers would appear claiming private property rights and demanding that the peasants relinquish what they thought were their de-facto usufructory rights to the land.

By the end of the 1800s there was a revived attempt by the owner of the concession area at the time, Sultan Jiftlik, to drain the Huleh swamps in order to make it more productive. In 1887 he contracted out drainage work to a Turkish engineering firm which succeeded temporarily in draining some of the waters from swamp, freeing up

"thousands of dunums of land". The new land generated an influx of new settlers to the region. Drainage works continued throughout the late-Ottoman period. As Sufian reports.

> …Already at the beginning of the twentieth century, the Turks were interested in leasing the Huleh lands to the Jews because of their financial and scientific capability to undertake anti malaria measures and agricultural cultivation in that area….The Ottoman government sponsored a series of experiments for the Huleh (1887, 1904-1905) in order to decrease the number and level of the swamp area to allow for better water flow. In 1917 they hired the German team of Muhlens, Zoller and Weidner to draw up other reclamation schemes for the Huleh. Zoller submitted a report on the Huleh only in 1924.[30]

These initial attempts provided the blueprint for later efforts to develop drainage schemes during the Mandate period.

By the end of Ottoman rule, much of the land of the Huleh region was in the hands of Christian landowners from the town of el Judeide in Lebanon. This town served as the commercial and trading center to which the Huleh region oriented itself. With the onset of the mandate and the drawing of political borders, however, the town of al Khalisa, originally established as a summer settlement by the Bedouin tribes of Bani Fadl and Bani Nu'aim, became the new commercial center of the region and developed rapidly.[31]

The establishment of key Jewish settlements depended on the complicity of these large landowners. In this way the socio-ecology of the Huleh region conditioned the way in which land-purchase by the Zionists would proceed and the sorts of drainage possibilities available and more generally the process of the production of Zionist nature, involved, what Massey refers to as "…a distinct mixture of wider and more local social relations". This nature can, in fact, be understood as a process which was continually being produced, and in this process, the history of the Huleh basin plays a central role. A focus on the process through which drainage was finally carried out, and through which the Arab inhabitants of the Huleh were finally expelled and dispossessed shows, a complex mixture of social relations that interacted to form the foundations, both material and meaningful, through which the project was concretized.[32]

Period of the British Mandate

When the British mandate assumed control over Palestine, the mandate government simply adapted existing laws, initiated with the 1858 Land Code. Rather than attempting to challenge the power of existing landowners with the redistribution of land in order to provide a measure of security for vulnerable tenants working on lands that were susceptible to land speculation, the mandate sought to impose nominal regulations on land-transfers.[33] These ordinances often insisted on allowing the existing tenants to continue cultivating a certain portion of the land or to receive monetary compensation for lost cultivation areas. This translated into a complex and contradictory web of rules and regulations that ultimately undermined the rights of the peasant farmers in the region and gave the upper hand to Zionist companies wishing to purchase the land for Jewish settlement.

Jewish settlement in the outskirts of the Huleh region began as early as the 1880s, funded by the French Jewish financier, Baron Edmund de Rothschild. These remote settlements suffered from severe bouts of malaria and ongoing clashes with nearby Arab inhabitants. Thus, they remained limited in scope.[34] Yet, they were vital in the Zionist imagination by virtue of the fact that they had been established in a contested frontier region in which clear borders had not been established between French and British mandates. Thus, these Jewish settlements were early examples of the ongoing Israeli policy of Judaization involving the use and expansion of settlements in contested territory as a way to defend and delineate borders of Jewish territory. Meanwhile, the process of land transfer of the Huleh concession under the British Mandate land transfer ordinances was dependent on the need to encroach on Arab land given that the area of the concession – approximately one-third of the Huleh Valley – did not have adequate water resources to allow for Jewish settlement.[35] These conditions set the stage for the defining feature of the transfer – the ongoing resistance by existing inhabitants to Zionist and British surveying expeditions and to the preparation for the drainage project.

This resistance, was represented in Zionist discourse as validating the Zionist claims that Arab inhabitants of Palestine, by their very nature, which was ravaged by malaria, stood in stark contrast to Zionist development imperatives that were seen as bringing progress and health to everyone including the Arabs of the region. This view was also used to manipulate existing laws in the effort to gain financial and technical support from the Mandate government for assisting in the drainage project. In fact, Zionist leaders claimed that they should have the same legal protections as the Arab cultivators in undertaking the drainage project. They even claimed that the cultivators were privileged by receiving protections while not having to contribute to the cost of drainage. These protests on the part of Zionist settlement agencies, were meant to manipulate and influence the mandate government and to contest its contradictory, albeit asymmetrical promises to both the Arabs and the Jews involving the recognition

of political/national rights for the Jews and stipulations to limit the displacement of Arab peasants. The absurdity of these Zionist protests and representation of the inhabitants of the Huleh as anti-modernist/anti-development are thrown into bold relief by the words of some of the Arab farmers of the Huleh valley: "It's better to die from malaria than from hunger, because our existence depends on the herds which need the swamps". In other words, Arab resistance to Jewish encroachment had nothing to do with inherent anti-development qualities, but rather to the complete undermining of any form of livelihood, developed or not, for the Arab farmers in the Huleh Valley.

An added hindrance to Zionist acquisition of the land of the Huleh Valley had to do with obstacles posed by the difficulties in translating Ottoman concessions into the terms of the mandate. Thus, in order for the transfer the Huleh concession from the Syrian-Ottoman Agricultural Company headed by the Salam family to the PLDC, the mandate government first had to re-confirm the original Ottoman concession.[36] The Zionist Organization feared the Mandate would not re-confirm the concession since it became clear that the absentee landowners had not actively attempted to undertake reclamation or drainage of the concession area, a precondition for the initial purchase of the lands which, technically speaking could have nullified their rights to sell the land to the PLDC. The cost of the purchase was another considerable obstacle for the Zionist Organization given that mandate transfer ordinances required at least some compensation for displaced tenants. Finally, water rights to the Upper Jordan were held by Pinchas Rutenberg who was engaged in another Zionist endeavor, the Palestine Electric Corporation. Rutenberg was concerned that drainage would undermine his company and opposed the concession transfer.[37] The final transfer took place in 1934, involving nominal protections for existing Arab tenants under the 1929 mandate "Protection of Cultivators Ordinance" which required that a certain amount in the concession area be reserved for the tenants who had previously been living in the concession area. This Ordinance, however, was continually manipulated and changed to allow for forms of compensation (monetary and land) to stand in for allowing tenants to remain on the land.

The "Arab revolt" of 1936-39 and the related Peel Commission plan for partition delayed the actual drainage scheme plans as the British became more uneasy about bearing the political, economic and strategic costs of supporting the Zionist settlement aspirations.[38] By 1940 mandate public health efforts had largely brought the malaria epidemic under control through systematic efforts including clearing out vegetation from ditches and the introduction of kerosene in pools.[39] These efforts, however, undermined the agricultural production process and grazing of Huleh farmers who resisted such interventions. The malaria epidemic was finally contained in 1945 with the experimental spraying of DDT in the Valley.[40] Additionally, in the effort to boost food production during the Second World War the mandate government extended credit and infrastructure to both the Arab and Jewish farmers of the Huleh Valley.

These ongoing difficulties and conflicts, exacerbated by Zionist officials inability to get the mandate government to help pay for the drainage scheme as well as the mandate's increasing restriction on Jewish immigration, acquisition and settlement in the wake of the Arab Rebellion and the onset of WWII, meant that little was done in the way of actual digging of drainage tunnels and pipes during the mandate period. At the same time, however, these developments strengthened the Zionist argument for developing the Huleh region in its reiteration of the need of Zionist control over the Huleh for strategic purposes as well as for the water, agricultural settlement and in order to eradicate malaria. During this period EMICA, an agency that had earlier been formed out of a merger between Rothschild's land purchasing company and the Palestine Emergency Fund, undertook several efforts to survey and develop a drainage scheme for the area, but little was done in the way of actual drainage until after the establishment of the Israeli state.[41]

From 1940 until the end of the mandate, Zionist land purchasing companies continued to acquire land in the region through various mechanisms. In cases in which farmers living in the area refused to sell their land, for example, Zionist bureaucrats would search for the registered heirs of the legal owner of the lands in places outside of Palestine in Syria or Lebanon. Often these heirs would willingly sell their rights since they had little connection to Palestine and the Zionist Organization was prepared to offer considerable sums of money to purchase their rights. Continued clashes occurred as peasants refused to leave their land, returned to it after having left for a short time or attempted to expropriate unused recently purchased Jewish land.[42] All these clashes later served to bolster the image of the brave, self-sacrificing Jewish pioneer who put his life in danger for the defense and for the building of the Jewish nation. As a result of these obstacles, the actual drainage of the swamps did not begin until after the establishment of the Israeli state when the Arab residents of the Huleh Basin had, for the most part, been forcibly expelled, Pinchas Rutenburg's electric company had been destroyed in the War and the contradictory stipulations of the British mandate no longer posed obstacles to Zionist settlement aspirations.

In 1950 the Jewish National Fund announced its plans to drain the Huleh valley as part of a larger project to make productive use of the water of the Jordan Basin. Walter Clay Lowdermilk, an American soil scientist, and vehement Christian Zionist lent his support. Lowdermilk had been deeply impressed and inspired by what he saw as the progressive potential of the Kibbutz and of Jewish agriculture. He devoted an entire chapter of his 1944 book, *Palestine, Land of Promise*, to sketching out a plan for what he called the "Jordan Valley Authority" modeled after the Tennessee Valley Authority (TVA 2008). Lowdermilk's sketch became the basis of a more detailed plan drawn up in 1949 by Tennessee Valley Authority engineer, James Benjamin Hays who had been contracted by Zionist leaders to design and elaborate Lowdermilk's ideas. In the mid-1950s, Lowdermilk conducted an inventory of various soil types in Israel. He used the Huleh as an exemplary case. He envisioned a reclamation project that would produce

a veritable "Garden of Eden" in the Huleh region involving the use of highly efficient irrigation and technological works.[43] By 1958 the valley had been entirely drained.

The abstraction of nature from society

The views of the European scientists and explorers, both Zionist and non-Zionist, who recorded, classified, categorized, defined information and data about the Huleh during the mandate and early state period, expressed the extreme consequences of a belief in the absolute separation between social and natural processes. The draining of the Huleh Valley represented one of the first major water development schemes of the newly established state of Israel. It allowed for irrigation, "re-inhabiting" and "revival" of the land and people of Israel. Such projects were supported and legitimized by the work of Zionist romantics such as A.D. Gordon, one of the spiritual forefathers and elaborators of the redemption philosophy. The sense that the such a project had finally come into being through the Herculean efforts of visionaries who had, reconnected to their internal Jewishness and been able to implement their ideas in the production of a new waterscape of a specifically Zionist Nature was internalized by many generations of Jews and Zionists (some of them Christian) throughout the world.

Gordon claimed that the early Zionists were engaged in a sacred mission of redeeming the land and themselves through agricultural labour. Engaging in such labour was, according to this philosophy, tantamount to spiritual redemption and ascendance towards the true human nature of the rooted Jew in his/her homeland. Such ideas were linked to German romantic philosophy, extolling the benefits of "nationalist self-sacrifice and Tolstoyan redemption through labour".[44] This romantic strand of Zionism, which continued to influence the Israeli environmental movement throughout the twentieth century, became, in Gershon Shafir's words, a "romantic *tour de force*" which had a "…tremendous moral and social impact".[45] Later such views appeared to be substantiated and validated by the work of U.S. technical experts who brought with them values gained from the American experience of settling the West.[46] Ben-Gurion captured these sentiment and his faith in the possibility of developing desalination technology as early as 1956:

> …[T]he task is not beyond Israeli science…The irrigation of the desert with purified seawater will appear a dream to many, but less than any other country should Israeli be afraid of 'dreams' which are capable of transforming the natural order by the power of vision, science, and pioneering capacity. All that has been accomplished in this country is the result of 'dreams' that have come true by virtue of vision, science, and pioneering capacity.[47]

This sort of rational romanticism was seen as responsible for allowing the transformation from what was a supposed traditional unproductive form of agriculture to modern agriculture. It celebrated technological innovation and modernization while at the same time idealized nature and a close connection to the soil through labour. This ideology, as it combined with an expansionary Jewish-only labor policy, allowed Zionism to cohere and to speak to ordinary (*shtetl*) Jews who had recently immigrated from Eastern Europe. The cooperative system of Kibbutz settlement and farming gave the new immigrants security, familiarity, access to land which they had been excluded from owning in Europe, and a sense of self-importance. Yet, even this romantic rationalism which saw the unleashing of a true Jewish nature (in opposition to the abnormalities that were believed to define Diaspora Jews) in physical agricultural labour, the celebration of the technical and the recovering of the land from a supposed wild and neglected state, points to the underlying belief in the separation of society from nature. In other words, the deeply ingrained belief that Jewish settlers were simultaneously redeeming themselves and the land, restoring both to their true natures in a teleological process governed by the internal laws of such reconnection, failed to fully account for the socio-ecological relations that were key in creating the conditions, both meaningful and material, for the way in which the project unfolded. This separation sheds light on the forms of understanding of Jewish settlers, engineers and scientists that blinded them to the existing socio-ecology of the Valley and more generally the problems associated with abstracting ecological processes from wider and more local social relations and the political, economic and cultural processes through which they unfold.

Indeed, the socio-ecological circumstances through which the drainage project was realized, as we have seen, were crucially shaped by local and wider social and ecological relations that intersected in the process leading up to the drainage of the Huleh marshlands. Yet, this lack of recognition of the mutually constitutive process of socio-ecological relations still plagues the Israeli environmental movement of today. Interestingly, the drainage of the Huleh sparked the development of an Israeli environmental movement (Society for the Protection of Nature Israel) which succeeded in turning the Huleh region into a nature reserve in 1964.[48] By the 1990s concern about the ecological state of Huleh had become even more pronounced in the wake of the spontaneous combustion of the desiccated peat soil even after many attempts to reflood the Valley. Yet many scientists point to the unpredictability of these efforts and the unlikelihood of the Huleh being restored to its supposed "original state" in which papyrus and native oak was seen as what ecologists "the climax population". As one Israeli scientist stated, "…it's now clear beyond any doubt that we're not talking about 'rehabilitating' the Hula….but about an entirely new body of water…"[49] In many ways these continued efforts at reclamation have led to a reworking of Zionist connection to nature and of the idea of redemption. This reworking has meant a focus on reclamation and healing of the destruction wrought by early Zionist development on the ecology of the land. The focus of redemption is no

longer aimed at the draining of swamps and at the application of agricultural science and technology in an effort to eradicate malaria and to create conditions for Jewish intensive farming.[50] Today, Zionist redemption has come to mean restoring the land, and the swamps to their "original" state.[51] The technology and science of redemption is now focused on reintroducing old species and returning the ecosystem to a state of "equilibrium". Although it is significant that today's ecological science guiding the "rehabilitation" of the Huleh region better understands the complex interconnections between nature, people and animals, this view is still limited by its failure to see the interconnections within a relational frame. Instead, interconnections are understood simply as one-directional impacts, good or bad, of humans on nature or vice versa, thus, recycling the old dichotomies. Sufian tells us that such lessons are diffused through the state-run educational system in which school children learn about their environments through ecological study and participate in becoming connected to the land through reclamation projects in the same way as the children of the pioneering generation of Zionists were taught about nature through the invented subject of "homeland studies".[52] In doing so, the growing "post-Zionist" environmental movement has spearheaded efforts to build collaboration between different ethnic groups especially among students over issues related to conservation and protection of the environment.[53]

It seems to me that this has, even if only slightly, shifted thinking about the supposed detachment of Arab groups to the land. But even with its criticism of the ecological consequences wrought by Zionist development projects, it falls short of challenging the official Zionist historical narrative. Instead, it reiterates many of the claims about the necessity of undertaking such seemingly short-sighted development projects required by dire ecological and social conditions of the time. These approaches tend to leave out any significant examination of the history of dispossession of existing farmers in places such as the Huleh Valley and the traces and influences that these previous socio-ecological relationships had on the process of early development projects. For example, it fails to raise questions about inequality in the current set of institutional arrangements. These have cemented historically unequal access to natural and government resources in law such as questions about Israel's control over the significant resources in the Golan Heights from which Lake Tiberias gets its water or the complex way in which Israel's nature reserve system excludes certain groups, especially the Bedouins from access to secure land and water resources.[54]

In other words, current official environmental thinking within Israel often relies on narrow conceptions of nature and ecology as separate entities. They do not take account the interconnections between the present socio-ecology and that of previous ones, as well as the way in which these conditions have been shaped by a diverse array of influences, not stemming solely from Zionist development ideals and visions. Sufian explains, that during the drainage of the Huleh in 1934 engineers burned papyrus in order to create conditions for digging piping networks through which to

drain the swamps. This practice was adapted from the practices of Arab peasants whose livelihoods depended on the cultivation of the Huleh swamp. They would burn papyrus as a kind of preparation for planting. This example shows the importance of a relational notion of the history of socioecological environments in the region. It reveals the interconnections between the supposed separate historical-geographical trajectories and worldviews of the various groups that inhabited the land at the same time and inevitably influenced one another. A debate sparked by the work of two Israeli social scientists, Bar-Gal and Shamai, in the mid-1980s over whether or not it was, in fact, a necessity of survival to drain the swamps of the Jezreel Valley, reveal the intense reverberations that even the slightest criticism can have within Israeli public discourse. Academic and media reactions, as Sufian notes, were "… much like those to the New Historians of Zionism…Bar-Gal and Shamai were placed within the larger trend in post-Zionist historiography of the deconstruction of Zionist myths… Both academics and the media attacked [them as]…traitors, anti-Zionists, anti-labor and 'PLO supporters.' They argued that these authors were trying to rewrite the history of the landscape of Israel".[55] Bar-Gal and Shamai were essentially seen as challenging Jewish rights and entitlement to the land. Thus, redemption seen through the lens of new ecological science is becoming more and more accepted as an alternative to old forms of connecting with nature. However, questioning of the past and its consequences for current forms of social, economic and environmental injustice are much more contentious and are only being addressed by the fringes of the environmental movement. Nevertheless, the fact that questions have arisen at all speaks to the fact that there are, perhaps, tiny cracks in conventional Zionist understandings that are beginning to make room for critical re-assessment.

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In â€˜The Future of the Novel [Surgery for the Novel â€“ Or a Bomb]â€™, an essay written between December 1922 and February 1923, Lawrence grouped Joyce with Proust and Dorothy Richardson as representatives of an extreme self-consciousness in modern fiction which effectively spelt the death of the â€˜serious novelâ€™: and in the 1923 â€˜Forewordâ€™ to Studies in Classic American Literature he celebrated the. Drainage is the natural or artificial removal of a surface's water and sub-surface water from an area with excess of water. The internal drainage of most agricultural soils is good enough to prevent severe waterlogging (anaerobic conditions that harm root growth), but many soils need artificial drainage to improve production or to manage water supplies. The Indus Valley Civilization had advanced sewerage and drainage systems. All houses in the major cities of Harappa and Mohenjo-daro had access to First, it showed that political Zionism placed the colonizing project ahead of any 2,000-year longing for Jewish people to "return" to Palestine. Second, it showed that, from its inception, Zionism depended on European powers' sponsorship of its colonial-settler aims. Early Zionists made no secret that they hoped the Jewish state to be what Herzl called: "a portion of the rampart of Europe against Asia, an outpost of civilization as opposed to barbarism."