New Technologies for Ancient Practices: Is Water Cremation a Viable Option for Interment of the *Met* in Jewish Burials?

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Introduction

Each and every person who is alive or will ever be alive will die; this difficult truth hovers over us all. Along with the existential question of life itself, is the question, what happens to my body after death? How will the flesh that once was vibrant be disposed of? How can this happen in a way that honors the life of the person, comforts the mourners, and is practical regarding the land and workers that will be dealing with the body (heretofore call 'the *met*').

In reviewing the topic of burial in the literature, we find that in ancient Israel, people were once buried in caves - considered burial in the ground. There was also a time when a *met* was buried in a field and after the flesh disintegrated, the bones were gathered and placed in the family ancestral cave, mound, or ossuary. Even as the tradition shifted from these practices, the minhag remained to bury in the ground. With over seven billion people on this earth, the current population will have to find places to be buried, even as the available earth to create proper burial sites will diminish over time. Fire cremation re-surfaced in the twentieth century as a viable option for interment¹. Even as *Teshuvot* were written in the Reform, Conservative, and Orthodox movements that ruled against fire cremation, many Jews are creating a "consensus of the pious" that is questioning these rulings. Carbon footprints, economic and environmental factors are pressing on these old rulings to question the viability of cremation as a means to deal with the met.

There have been exploratory forays into water cremation, better known as alkaline hydrolysis. This is the topic that will be explored in this *teshuvah*, from a Jewish Renewal perspective. Jewish Renewal approaches *halachah* through the lens of integral halachah. This approach is dedicated to understanding traditional rulings and then to reach into the present and future, to ensure that Jewish tradition is as relevant for the realities of today, as they were in the past.

¹ According to Aley Shalechet, owner of Israel's first crematorium, in 2007 cremation is chosen in the Western World as follows: Japan 99.9%; Switzerland 75.5%; England 73%; Sweden and Denmark 70%; Canada 45%; U.S. 32%; Spain 17.8%; Italy 16%.

Integral halacha invites us to ensure that all decisions are seven generation sound. There are several questions we ask² that ensure rules, laws, and customs are designed to both support structure in society and to assist in inner transformation of the person. Jewish law does not exist for its own sake; it is designed to uphold a civil society, honor the glory of God and our role as existing in God's image, and to assist a person in becoming aligned with God's will. This latter demands inner work and transformation. Our biology and our ego may try to drive the bus, yet, it is aligning with God's will that advances the soul. And, if my soul is lit from the lamp of God, it is essential that I honor the soul's inner journey of transformation and privilege this journey. In Rabbi Zalman Schacter Shalomi's own words.

"...the transformative part of the mitzvah is what we are looking to preserve...We begin with deconstruction, seeking to uncover the original insight which led to the creation of the practice which, in turn, is supposed to serve the purpose of helping us to remain connected to the insight. When we get into reconstruction, we need to go beyond social and historic reconstruction. What we really want is to re-create the same kind of situation, appropriate to our technology, our mind space, and how we can do it right."

This teshuvah will be looking at a different kind of cremation – water cremation. This technology was first used in the funeral industry in 2011. This teshuvah will explore the use of this new technology utilizing traditional analysis and will add a factor that I have not yet seen in the literature – and that is the care of the soul in the process. Jewish sources associate the dissolving of the flesh with the soul's atonement process and we will consider below how this might be affected by AH. We will also explore this topic from economic and environmental concerns. The sheer number of humans upon this earth right now demands that we understand the impact of our rules and legislations on the environment.

Sh'eila Background

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Daniel Ziskin is part owner of The Natural Funeral Home. Their mission is to arrange green

² Such as: Whose needs are being served? What does God have to do with it? Am I creating an increase in meaningful Jewish engagement? How do we recalibrate practices so that they stay meaningful and relevant to changes in society?

³ Schachter-Shalomi, Integral Halacha; pages 10 and 20

burial, water cremation (alkaline hydrolysis or green cremation), conventional flame cremation, Reverent Body Care™ and memorials. They are committed to green solutions as an answer to some of the environmental problems of traditional burial. The Natural Funeral Home owners are all environmental activists.

Problems associated with traditional burial include the consumption of resources utilized in burial⁴, available land for burial⁵, and carbon footprint⁶ of the burial process. Daniel came to me, wondering about the possibility of interfacing with the Jewish community for utilization of their services, for burial. I shared with him the Jewish response to fire cremation and that even though it is not forbidden, it is discouraged. He shared information about alkaline hydrolysis and wondered if it was an appropriate intervention, as no fire is used.

Question:

What is the appropriate response for Daniel to give to Jewish clients, if they ask if alkaline hydrolysis is halachically acceptable?

We might ask, why consider this topic? And what factors must be taken into consideration in order to determine halachic acceptability? Is it incumbent upon us to take environmental factors into consideration? How do we create a decision that honors the soul's journey throughout its process of *kapara*?

Looking at alternatives to full body burial is relevant today, as available land in Israel and in Jewish cemeteries throughout America are being used up. In Israel available land for burial is at a crisis level. These factors are important enough to demand that burial societies find new

⁴The New York Times, "Thinking About Having a Green Funeral?" Mar. 22, 2018

[&]quot;Here is what Americans put in the ground each year through traditional burials: 20 million feet of wood, 4.3 million gallons of embalming fluids, 1.6 million tons of reinforced concrete, 17,000 tons of copper and bronze, and 64.500 tons of steel"

⁵Burial density—the size, depth, ratio, and distance of burial plots from each other in an acre of cemetery—is determined by several factors that make a realistic estimate difficult, chief among them the naturally occurring terrain, including soil composition which in turn affects water run-off, root involvement, slope, and other impediments. The Conservation Burial Alliance recommends burial density no greater than 300/acre, although most have a much lower burial density. A traditional cemetery buries between 1000 -1200 burials/acre.

⁶ https://www.greenburialcouncil.org/:

answers to a critical situation. Solutions include creation of niche graves and a return to the gathering of the bones after the flesh has decomposed off of the body.⁷ In America two square miles of the United States goes to new graves.⁸ In Boulder CO there are two Jewish cemeteries. One is completely filled up, and the other is coming close to maximum space. Considering there are 20,000 Jewish people in Boulder, this will be a problem in 10-20 years. Each year US cemeteries bury over 30 million board feet of hardwood and 90,000 tons of steel in caskets, 17,000 tons of steel and copper in vaults, and 1.6 million tons of reinforced concrete in vaults. With green burial, fewer resources are used. Looking at solutions BEFORE it is a problem is responsible stewardship.

Another consideration is the sheer number of human beings that will need internment, as our population increases and available land decreases. Wikipedia contends "In demographics, the world population is the total number of humans currently living, and was estimated to have reached 7.8 billion people as of March 2020. It took over 200,000 years of human history for the world's population to reach 1 billion, and only 200 years more to reach 7 billion." Jewish burial in both the United States and Israel are beginning to reconcile these numbers with available land; aforementioned solutions are on the table.

Environmental factors and economic concerns

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Burial practices and halacha were established two millennia ago. Jewish law consistently goes back to Torah and Talmud to ensure that there is an unbroken chain of law that honors the word of God and the sagacity of our Sages. Yet the sheer numbers that show the fulfillment of 'be fruitful and multiply and replenish the earth" have changed the landscape of burial.

In Israel, where land is precious, cemeteries are filling up.¹⁰ We are left wondering how we can respond to this situation. Jeremy Kalmanofsky, who wrote the standard for alternative burial, asks,

⁷ https://www.haaretz.com/israel-news/.premium.MAGAZINE-jerusalem-set-to-open-world-s-first-underground-cemetery-this-fall-1.7686534; August 2015 article

⁸ Harris, Page 56

⁹ Genesis 9:1

¹⁰ Korvazar, Kalmonofsky

As in so many areas, modern life raises new questions and poses new problems. Jews are asking about the ecological and fiscal sustainability of our burial practices: cemeteries are filling up, especially in the Holy Land, as well as in many American population centers. One might legitimately ask how much flexibility Jewish law has for alternative mortuary methods. The evolving technologies examined below are not in common use today.11

Between available land, carbon footprint of the funeral and mortuary practices, possible pollution of mercury and other toxic chemicals in the ground from burial, and the economics of burial - there are many issues today that have created a complicated scenario of how we intern the met. Ten acres of a typical cemetery contain nearly 1,000 tons of casket steel, 20,000 tons of concrete in burial vaults, and enough wood used in coffins to build 40 homes. 12

When many of the rules and laws of burial were created, families lived close to where their ancestors were buried. The structure of society was predicated on limited mobility; family ossuraries were common and there was often a single cemetery for kin. The practices of gathering bones and bringing them to a single cemetery was both simple and easy.. For example, my parents live in Scottsdale AZ, I live in Boulder CO, the rest of the immediate family is in Los Angeles CA, and their gravesite is in Chicago IL. To gather us all together and ship the *metim* over 1000 miles is something that our ancestors did not consider as they were creating burial halakhot. Could alkaline hydrolysis honor a simplified process of gathering bones and economically bring the families together in interment?

Background Sources

History of burial in ancient Jewish practices

Our first mention of interment of a deceased is in Genesis 23:19, in which Abraham seeks a place to bury his wife, Sarah. His inquiry to the owners of the land he seeks to buy suggests that cave burial was an accepted practice. In the Talmud Sanhedrin 96b we find a reference to Jewish cave burial. This is borne out by historian Roland de Vaux:

"The normal type of Israelite tomb is a burial chamber dug out of soft rock, or making use of a natural cave. The entry is a narrow passage opening on one of the sides: on

¹¹ Kalmanofsky, Page

¹² Statistics from Centre for Natural Burial

the other three sides are ledges on which the bodies were laid. There is sometimes a cavity in which the bones of skeletons were placed to make way for new burials. These tombs are, in fact, common tombs, used by a family or clan over a considerable period...In the Hellenistic period a new type of tomb appears; instead of ledges, narrow niches are cut perpendicularly into the wall, and the corpses placed inside. For at least two hundred years, from 100 BCE to 100 CE, the bones were laid to rest in coffers of soft limestone: great numbers of these ossuaries have been discovered in the neighborhood of Jerusalem. In Palestine, other methods of burial, such as shafts opened in the rock, stone sarcophagi and wooden or leaden coffins, are later than biblical times."¹³

We learn about a two-stage protocol in The Jerusalem Talmud.¹⁴ Therein is a description of the practice of *likut atzamot* (gathering of bones), where first the bones are buried in shallow pits (*mahamorot*), and kept there until the flesh dissolves. Once that occurs (usually after a year) the bones were collected by family members and buried in the family/clan final resting place. ¹⁵ They were often put into stone boxes, or ossuaries¹⁶. After some time, burial was done in wood coffins and family crypts became private plots. By the 2nd Century CE, burial would have occurred sometime after the destruction of the Second Temple. The exile effected burial practices and burial in the ground became the accepted practice by the 14th C. CE. By Medieval times private burial grounds, pine boxes, and Chevrah Kaddishah societies were the norm for most of the Jewish community.

Jewish Views on Burial

As previously mentioned, we all die. How to honor an individual life is connected to how the body of the *met* (the one who has died) is dealt with; the industry calls this the disposition of the body. Burying into the ground is a Jewish value based on rabbinic law, extrapolated from Torah. "You will return to the ground, for it was from the ground that you were taken." ¹⁷

¹³ De Vaux, Page 57

¹⁴ Mo'ed Katan 1:5

¹⁵ gathered unto his forefathers - Masechet Avodah

¹⁶ The length of the box was the length of the femur bone, which is the longest in body. There was a value for not grinding or cutting bones. Source: A Depository of Inscribed Ossuaries in the Kidron Valley," *Israel Exploration Journal* 12 (1962)

¹⁷ Genesis 3:19

Throughout Genesis we hear of the stories of the Matriarchs and Patriarchs who are returned to the earth. 18 Yet rabbinic law most often uses a Deuteronomic passage to mandate ground burial. In Deut. 21:22-23 it states:

לא-תַלין נבָלַתוֹ על-הַעץ, כּי-קַבוֹר כג תקברנו ביום ההוא--כי-קללת אֱלהים, אָת-אדְמַתָּךָ, אֲשֶׁר ,תַּלוּי; וְלֹא תְטַמֵּא (יָהוַה אֱלֹהֶיךָ, נֹתֶן לֹךְ נַחֲלַה. {ס

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23 his body shall not remain all night upon the tree, but you shall surely bury him the same day; for he that is hanged is a reproach unto God; that thou defile not thy land which the LORD thy God giveth thee for an inheritance. **{S}**

Although this particular verse is intended for the burying of a criminal, the rabbis used the hermeneutical principle of *Prat Ukhlal*¹⁹, which is a particular statement followed by a general statement. The general statement is intended to include instances other than that in the particular statement. Hence, the rabbis said, if this is true for the wicked, it must be true for the righteous as well.²⁰ The biblical prohibition against leaving a human body unburied alludes to the positive biblical mitzvah to bury bodies in the earth. Several medieval commentators confirm that burial is a biblical mitzvot.²¹

Something that never changes, is that laws change. Rabbinic law often sources itself in Tanakh, yet there is dispute. Jeremy Kalmanofsky writes:

The Talmud considers the possibility that in-ground burial was merely the prevailing custom, but that other mortuary methods might also satisfy the prohibition against leaving a body unburied. As a result, important Rishonim and Aharonim [e.g. R. Hananel to b. Sanhedrin 46b, Lehem Mishnah to Avel 12.1, and probably R. Yosef Karo himself in SA YD 362.1] dissent from Rambam's view and consider in-ground burial to be a rabbinic norm, not required by the Torah itself. R. David Golinkin adopts this view in a 1996 responsum.²²

Hence, our standard for burial went from burying in caves, to a two-step process of shallow burial while the flesh dissolves and then gathering the bones for burial in a family place, to burial in a

¹⁸ Gen. 23:19: 35:20: 49:29-32: 50:25-26

¹⁹ One of the thirteen principles the Torah is expounded, as taught by Rabbi Ishmael

²⁰ Sanhedrin 6:6; Sanhedrin 46b; Kitzur Shulchan Aruch 199

²¹ Rambam, Ramban, also Sefer HaChinuch

²² Kalmanofsky, Page 2; Golinkin Responsa http://responsafortoday.com/vol6/2_6.pdf

pine box in a deep grave. What has remained static is to bury within a short time (from the Torah dictate of 24 hours to the 72-hour standard of today) and a minhag or custom not do fire cremations.

Laws created in Israel and the Middle east have also influenced the halacha on burial. For example, there are climate and geographical differences to Israel and Babylonian realities, that could have an effect on how a body is buried (due to temperature and humidity²³). Yet functionally, most Rabbis insist on burial of the body due to kavod hamet. Kalmanofsky adds. "how we treat dead bodies articulates our values about living people, and the dignity of all people would be at stake." The value to bury a body is woven into the fabric of Jewish life-cycles.

Honoring the Dead – Kavod hamet

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One thing that all sources agree on is the imperative to honor the dead. (Kavod Hamet) We are reminded that accompanying a *met* to the grave has no measure, to show our honor for the life that was.²⁴ Isaac Klein writes, "Life is sacred. Its beginning and its end are mysteries. Both birth and death touch the fringe of the divine and have therefore been invested with body and soul because both are the handiwork of God...The principle of Kayod hamet has gained new relevance in connection with a number of current problems, including autopsy, embalming, cremations...."25 Kavod hamet is paramount in the burial process and underlies all decisions in burial. This principle will be considered as a primary factor.

Klein adds:

"The distinction between soul and body is something foreign to the Hebrew mentality, and death, therefore, is not regarded as the separation of these two elements. A live man is a living 'soul' (nefesh). 26 Death is not annihilation. So long as the body exists and the bones at least remain, the soul exists...These ideas account for the are bestowed on the corpse and the importance of honorable burial, for the soul continued to feel what was

²³ Carrie, Srnka, The Effects of Sun and Shade on the Early Stages of Human Decomposition, University of Tennessee - Knoxville

²⁴ Bava Batra 100b:3

²⁵ Klein, Pages 270 & 273

²⁶ Numbers 6:6; Leviticus 21:11

done to the body. Hence to be left unburied, a prey to the birds and the wild beasts, was the worst of all curses."27

Rabbinic tradition repeatedly teaches us of the importance of kavod hamet regardless of socio-economic status, gender, behavior in life, criminal trespass.²⁸ From an emotional standpoint this honoring brings respite to a living soul. Knowing that one's life and body will be respected from first breath until the decomposition of the flesh is the ultimate honoring. It is a reminder that one's life has mattered, that last breath does not discard the value of a life.

An auxiliary factor to this is care of the soul; is it necessary to consider rate of time for the dissolving of the flesh in the soul's *kapara* (atonement) process? We will return to this later.

Collection of the Bones - ליקוט עצמות

The dissolving of flesh happens in a short period of time²⁹ while the bones last throughout time. This factor has put an emphasis on caring for the bones as part of the burial process. The Talmud³⁰ and Shulchan Arukh has spoken to this in detail. The shallow field in which the *met* was buried allowed for the decomposition of the flesh. The prevailing belief was that it would take a year for full decomposition and during this time, judgment of the soul would occur. Halacha states:

"A collection of bones [for final burial] is made only after the flesh has become decomposed; [for] once the flesh is decomposed, the shape of the corpse is no longer discernible through the bones. Therefore, one may collect by himself his father's and mother's bones.31

The notion of judgment while the flesh is still on the bones is a topic that the Talmud addresses³² and never fully settles. Yet the custom of saying Kaddish for a parent for 11 months is connected to this idea of the soul's judgment being complete. ******

²⁷ de Veux, Page 56

²⁸ Deuteronomy 23:22-3; Proverbs 22:2; Sanhedrin 6:6; Sanhedrin 45a; Tobit 3:3-4;

²⁹ Green Burial Council; See appendix

³⁰ Yerushalami Moed Katan 5a:1; Sanhedrin 6:6 Sanhedrin 42; Sanhedrin 47b:4; 3

³¹ Shulchan Arukh, Yoreh De'ah, Siman 403

³² Sanhedrin 46b

As previously mentioned, the two-stage process of burial during pre-exilic times, meant that the bones were collected after the flesh had dissolved³³. The mishnah adds that "that with the decomposition of his flesh, the executed transgressor achieves atonement, so that he may be buried alongside his righteous relatives."³⁴ This value for ancestral interment, established throughout biblical and Mishnaic times, influenced how the bones were dealt with.

This import put on the bones seems to have a connection with views on resurrection of the dead. In both Midrash Bereshit Rabbah³⁵ and Leviticus Rabbah³⁶ there is a reference to the indestructible nature of the *luz* bone and how it will be used in the resurrection of bodies at the time of Mashiach. Bnei Issachar also refers to the *reshimu* or residue of the soul that clings to the bones.³⁷ Because of this (and the lack of clarity on whether the *luz* bone is a vertebra or the sacrum) it is important to emphasize that is essential that the bones remain intact.³⁸ In Alkaline hydrolysis, the custom is to ppulverize the bones into a powder; yet to preserve the bones for the above stated purpose, other arrangements would have to be made. Lastly, Talmud teaches: "We do not break the bones nor sever the sinews [of a corpse] unless the bones were already broken of their own accord and the sinews severed of their own accord." ³⁹

Care of the Soul

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The literature on disposition of the *met* speaks of *kavod hamet*, yet does not discuss the journey of the soul after death, even if it is alluded to in the saying of kaddish. Once the *met* has been interned, we might ask, is there a journey the soul makes? Is the way in which the process of the flesh dissolving from the bone matters for the soul's journey? I have not found this discussed in the literature yet feel it is an important component that can be added to the discussion; and perhaps the soul's journey will help us understand if alkaline hydrolysis can be considered a valid method of interment of the met.

³³ Sanhedrin 47b:4

³⁴ Ibid.

³⁵ Bereshit Rabbah 3

³⁶ Leviticus Rabb 4

³⁷ B'nei Issaschar

³⁸ Semachot 12:1

³⁹ Semachot 12:7

And what about care of the soul after death? The will of a person seems to dissolve after death, leaving the presence of the soul that deserves honor and dignity. The soul is purported to go through a *teshuvah* (repentance) process or *kapara* – an atonement. Sanhedrin 46b-5 asks:

איבעיא להו קבורה משום בזיונא הוא או משום כפרה הוא

A dilemma was raised before the Sages: Is burial obligatory on account of disgrace, i.e., so that the deceased should not suffer the disgrace of being left exposed as his body begins to decompose, or is it on account of atonement, i.e., so that the deceased will achieve atonement by being returned to the ground from which he was formed?⁴⁰ We also learn:

אדם אין צדיק בארץ אשר יעשה טוב ולא יחטא (קהלת ז, כ) דכתיב

Yes, even the righteous are in need of atonement, as it is written: "For there is no righteous person on earth who does good and never sins" (Ecclesiastes 7:20), and so even the righteous need atonement for the few sins that they committed over the course of their lifetimes.⁴¹

Even as the question of atonement or disgrace is never fully answered, there is an admittance that all souls will need to go through a *kapara* process after death. What does our tradition say about this process? We have to look into the kabalistic literature for an answer to this. The discussion begins with *Chazal*, who state that the dissolving of the flesh helps *kapara*; they suggest that a person is judged as long as there is flesh on the bones. This view claims that judgment goes on as long as there is flesh on the bones. The question remains, how do we know? Do we believe the mystics? Kabbalists? Reports and stories of people who have had near death experiences? And, other questions that come up include - does time matter to the soul? Does space? Can the process of *kapara* take place in an instant or is it a time-based process? Because there is no way to answer these questions for sure, we can begin by looking into the literature for more information about the soul and its journey. Bereshit Rabbah talks about levels of the soul.

⁴⁰ Sanhedrin 46b-5

⁴¹ Sanhedrin 46b-15

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ַפִּי הַדָּם הוּא הַנֵּפֶשׁ. רוּחַ, שֶׁהָיא עוֹלָה וְיוֹרֶדֶת, שֶׁנָּאֱמֵר מִי יוֹדֵעַ רוּחַ בְּנֵי אַדָם הַעוֹלָה הִיא לְמַעְלָה. :(ק<u>הלת ג, כא</u>) ָנְשַׁמָה, זוֹ הָאוֹפִיָּא, דִּבְרִיָּתָא אָמְרִין הָאוֹפִיתָא טָבָא. חַיָּה, שֶׁכָּל הָאֵבָרִים מֵתִים וְהִיא חַיָּה בַּגּוּף. יְחִידָה, שַׁכַּל הַאֶבַרִים מִשְׁנַיִם שָׁנַיִם, וְהִיא יִחִידַה בַּגוּף

By five names is the soul/nefesh called: nefesh, ru'ach, n'shamah, chayah (living one), y'chidah (unique one). Nefesh – this is the blood . . . Ru'ach – for she rises and falls. [as in:] "Who knows if the ru'ach of human beings goes upward?" [Ec. 3:21]. N'shamah - this is the visage/character/ofah. . . Chayah - that all the limbs die and (i.e., unless) she lives in the body. Y'chidah – that all the limbs are two by two [but] she is singular in the body.42

R. Simchah P. Raphael, Founder and Director of the DA'AT INSTITUTE (Death Awareness, Advocacy and Training) writes:

If we start with the assumption that consciousness survives bodily death, what impact does cremation have on the state of the soul, as opposed to in-ground burial? According to the Kabbalists, after death the soul goes through what is called *Hibbut Ha-Kever*, the Pangs of the Grave. According to the Zohar (I 218b-219a) this is a process of the nephesh, or bioenergetic (pranic) dimension of the soul leaving go of its attachments to body, and disconnecting from the physical realm. In the Vedic tradition of India, it is believed that cremation speeds up this process. Once the soul sees the incineration of its own physical corpse, the soul can more easily leave go of attachments to the physical realm and continue its postmortem journey of purgation and ultimately divine recompense (i.e. what we refer to as Gehenna and Gan Eden, which are states of consciousness, not realms of celestial geography). The spiritual task of (the nephesh aspect of) the soul soon after death is to leave go of attachment to physicality. Fire clearly burns up attachments to the physical realm. From the standpoint of the postmortem journey of the soul, perhaps one could argue that the method of cremation has a greater spiritual efficacy than burial. That is certainly what one can learn from the Hindus and Buddhists who have a very clearly articulated philosophy of the consciousness of the soul at the time of death, and in the world beyond. Either way, the journey of the soul after death is about completion with the physical realm. That is not say that burial cannot support the process of completion. But certainly there is nothing in cremation that would hinder the postmortem tasks of the soul. In fact, the opposite is true.⁴³

⁴² Bereshit Rabbah 14:9

⁴³ Raphael

In a private interview with Rabbi Dr. Raphael, he noted that in Pirkei Eliezer⁴⁴ it is stated that the soul goes back and forth. between the gravesite and its former home experiencing pangs (*hibbut ha-kever*). The soul is still attached to the body, especially if the person never prepared for their death, or if they refused the spiritual life. He noted that in the inter-mezzo period – when the soul has not completely dis-attached from its physicality – that it could be considered compassionate to assist the dissolving, to mitigate the confusion. R. Raphael added for this to be effective, the process would have to be sanctified and appropriate prayers and *kavanah* would be appropriate.

Massekhet Hlbbut Ha-Kever⁴⁵, a 16th century kabalistic text attributed to Rabbi Isaac Luria (the Arizal), speaks of the specifics of the pangs of the soul. It is said that the soul's judgment begins immediately after the person is buried in the ground, and then goes through several days of a process that separates the outer shell (body) from the inner shell (soul), The Arizal writes that the ministering angels of the heavenly court demand a reckoning of how the soul did when it is encased in the body. The text also states that this process lasts for a year, although it does not speak of the relationship between the completion of judgment and remaining flesh on the bones. Appendix Three looks at the process after death in more detail.

According to Malbim,⁴⁶ three different levels of the soul undergo a process after death. The *neshama*, or eternal soul that never dies, needs no instruction after death; it is reported that this level of soul will return to its source. The *nefesh*, connects human life to all sentient life, and is akin to the animalistic life force. This level of soul also does not need instruction after death. Yet the *ruach* level of soul – the part of a person's unique character that is the "human spirit caged within the body of man" DOES need support and instruction. This level of soul conjoins with the flesh, and is the soul 'part' that chooses between right and wrong. From Malbim's point of view, the nefesh will dissipate quickly, the *neshama* returns to source with no 'work' done at all. Yet the *ruach* will have to account for choices made while conjoined

⁴⁴ Pirkei de Rabbi Eliezer, Chapter 34

⁴⁵ Gates of Reincarnation; Chapter 23, Section 3

⁴⁶ Rabbi Meir Leibush ben Yechiel Michel, Page 445

with the flesh, and needs a period of time to do so; the actual details of timing and process of this are difficult to discern.

Rabbi Yair Hoffman, professor at Tel Aviv University has completed a study of the soul just before and after death. He writes,

"When the soul departs, it is compared to the extinguishing of a lamp (Shir HaShirim Rabbah 6:1). The connection that binds the soul to the body is quite strong. The Gemara in Avodah Zarah (20b) tells us that in order to sever that connection, the Malach HaMavet, the Angel of Death, frightens the person to death, causing the soul to detach from the body. If the person had developed a close connection to Hashem in his or her lifetime, then ein macharid—there is no frightening on the part of the Malach HaMaves. Rather, the departing of the soul occurs because of its desire to attach to the Shekinah, which arrives as well...Sometimes the severing of the two is painful and sometimes it is not, depending upon the spiritual level of the deceased (see Ohr HaChaim Parashas Bechukosai 26 and Gemara in Berachos 8a)...Immediately upon death, the neshama can be in a state of utter confusion. The soul that is now detached from the body is painfully aware of any and all things that physically surround its body. This is particularly true before the body is buried. The soul can also hear words that are said by others that are around the body. The Talmud (Shabbos 152a) tells us that the soul itself mourns for its body for a full seven days. This is seen from the verse "His soul mourns for him" (Job 14:22)...For the first 12 months after death, portions of the soul hover over the body. For most *neshamot*, until the body reaches a certain level of decomposition, the soul wanders near the body and has no permanent resting place. This is one of the reasons for its pain and discomfort. The soul thus hovers over the body. During this time, the soul is aware of and is pained by the physical changes that occur to its body. *Tehillim*, praises recited to Hashem, are a source of comfort for the confused neshama...The Talmud (Shabbos 152a) therefore states, "Worms are as painful to the dead as needles are to the flesh of the living, as it is written (Job14:22), 'His flesh grieves for him." The

Mekubalim call this "*Chibut HaKever*"—punishment of the grave. For some people, what happens to the body in the grave can be even more painful than Gehinnom itself."⁴⁷

One can see from this discussion that there is not a definitive understanding of what exactly happens to the soul after death, nor which level of soul is experiencing what. What is clear is that there is a strong Biblical, Talmudic, and Kabalistic belief that the soul is immortal and has to experience a reckoning. For how long is unclear. How judgment is connected to the flesh is unclear. Perhaps it would be merciful to decompose the flesh more quickly, to mitigate the pangs of the grave? Or, would it be circumventing the process of kapara? Oh, to know for sure!

Alkaline Hydrolysis

As already state, traditional Jewish burial places the *met* directly into the ground. There is pressure today – due to economic and environmental factors, and lack of available cemetery land – to utilize alternative methods for dealing with the body after death. Integral halacha demands that these factors are integrated into Jewish law and customs. How to do this and honor burial in the ground is controversial. Until recently there was little option besides fire cremation. Recently, new technology has been developed which utilizes water to dissolve the flesh off of the body, called Alkaline Hydrolysis (AH). ⁴⁸ Alkaline Hydrolysis is often compared to fire cremation, yet the biochemistry between the two are quite different. One uses fire and the other uses water. If we are to make a decision on AH, it is necessary to differentiate it from fire cremation, which the science supports. ⁴⁹ AH dissolves the flesh via a specific

⁴⁷ Hoffman, Yair What Happens to the Soul After Death?

⁴⁸ The process is also known variously as resomation, bio cremation, aquamation, and water resolution. See, for example, Resomation Ltd. (www.resomation.com), BioCremation (biocremationinfo.com), and Aquamation International (www.aquamationindustries.com).

⁴⁹ Wilson: "Alkaline hydrolysis is in a sense the opposite of burning by fire. Burning is an oxidative process, whereas alkaline hydrolysis is a reductive process. Muscles, collagen, and hair are made of protein. In the AH process, proteins are reduced to their basic building blocks, called amino acids. Small groups of amino acids remain and are called peptides. Fats are reduced to biodegradable soap. Sugars are formed and nutrients are released (minerals). Chemicals such as embalming agents, cytotoxic drugs, etc. are broken down into basic nutrient elements. Water is liberated as the fats and proteins are reduced, and the bones and teeth, which are made of mineral ash called calcium phosphate, are not dissolved. Bones and teeth are like a sponge interlaced with collagen. As the collagen is broken down the bones become more and more fragile. The ends of the bones, the skull, the pelvis and other bones become very fragile while the denser shafts of the long bones and the teeth retain some strength due to the density of the calcium phosphate. All materials become sterile due to the temperature of the process and the breakdown of the proteins. All microorganisms consist of protein, and they are broken down into amino acids and small peptides as well. DNA and RNA are proteins, and as stated above those are also broken down into the basic elements.

chemical process that reduces the *met* to water and bone. The *met* is put into a container. with 95% water and 5% alkaline solution (potassium hydroxide or sodium hydroxid), that is gently rocked for several hours. During this process, the flesh dissolves and the bones remain mostly intact, although they are dry and brittle. 50

According to the Cremation Association of North America, "alkaline hydrolysis mimics what happens in natural decomposition as part of a burial, "just sped up dramatically by the chemicals." Industry standards then grind the bone into a powder and offer the bones to the bereaved. The remaining water solution is made up of water, peptides, amino acids, fats, salts, and potassium nitrate. The water can be given to the bereaved for burial, used as fertilizer for a favorite garden spot, given to farmers for fertilization, or disposed of. There is no environmental hazard to the process, as Ah removes any toxic elements, such as mercury, so it is not recycled into the earth. AH uses little energy, releases no toxic fumes, and is marketed as a green alternative to fire cremation. Essentially, alkaline hydrolysis mirrors the chemical decomposition that happens when a body is buried, except AH takes just hours -- from three to 12 depending on the temperature and pressure in the chamber -instead of months or years.

Cremation

Fire cremation is frowned upon in Jewish law; both the conservative and reform movement have responsum on the topic. A review of burial literature does not reveal an explicit prohibition of cremation; it reveals that rabbis began to vigorously refute it in the nineteenth century as European Jews began to imitate European culture. The 1891 Reform Responsa,⁵¹ written by Dr. M. Schlessinger at the direction the Executive Committee, declares cremation Is a permissible practice; this has not been refuted since that time. The Responsa states

Religion has the right and the duty to demand that its voice be heard on this question. Religion in general, and the spirit of Judaism especially, has to step forward and claim emphatically that the dead bodies of our dear deceased ones must be treated with

⁵⁰ See Appendix II for a picture of the bones

⁵¹ CCAR responsa ARR 341-348

decency, with propriety, and with serious-mindedness; that in the last rites performed at the funerals of mortal men, rich and poor be considered alike; that all unnecessary pompousness and ostentatious display of riches be avoided on such occasion; that at cremations as well as at burials, words of faith and hope, words of consolation and encouragement, words of religious uplifting and of recalling to the duties of life be spoken. And no rabbi-I should think, even no rabbi who entertains conservative views-has a right to decline, if invited, to speak such words at the cremation of a deceased co-religionist. We conclude now by saying that only the following motion, or one similar to it, may probably be in order in a rabbinical conference:

Be it resolved that, in case we should be invited to officiate as ministers of religion at the cremation of a departed co-religionist, we ought not to refuse on the plea that cremation is anti-Jewish or irreligious.⁵²

in a post-Holocaust response to the horrors of the fire deaths of millions of people, the acceptance of the practice of fire cremation shifted in the Reform movement, out of respect to those who expired in the concentration camps⁵³. After the Holocaust, modern Reform tradition saw a gap between a *met* peacefully decaying in the ground and the inhuman destruction that occurred in the cremation ovens. Contemplation of this gap mandated a return to normative traditional Jewish burial practice. The CCAR Responsa states:

The stronger-reason for our opposition to cremation, [is] namely that burial is the normative traditional Jewish practice. "Normative" in this context means first of all that we endorse burial precisely because it is *Jewish*, that is, the way in which Jews have for many centuries chosen to consign the remains of their loved ones, and that we find it meaningful to identify our own practice with that of our people. "Normative" also means that burial is the specific means by which our tradition seeks to realize the value of k'vod hamet, the dignified treatment of the dead. And by that same token, our tradition has come to identify cremation, the reduction of the body to ashes, as an act of *nivul hamet* or *bizayon hamet*, the contemptible or disrespectful treatment of the dead."54

Teshuva on Alkaline Hydrolysis

⁵² CCAR responsa 341-348

⁵³ CCAR responsa 5766.2

⁵⁴ CCAR Responsa Committee 5774.6.

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This turn-around both acknowledges the formal policy of the CCAR, which is to allow for cremation, while discouraging the practice on the grounds that burial is the normative tradition and acknowledging the impact of The Shoah on modern thinking.

The modern conservative movement have two modern responsum, that address fire cremation⁵⁵. In 1986, written by Rabbi Morris Shapiro, published a responsa that focused on whether it is a rabbinic or biblical law that determines what to do with the *met*. Shapiro begins with looking at Samuel 1, 31:12-13 which speaks of the burning of King Shaul's body, and how Rabbi David Kimchi in the 12th Century supports the burning of a *met* if it is to honor the body (Shaul's body was desecrated when he was killed, and this desecration was dealt with via the burning).⁵⁶ Yet Sanhedrin 46b negates this view and uses Deuteronomy (you shall bury him) as a prooftext. Whether the ruling is biblical or rabbinic remains inconclusive; he also discusses whether burial is done to avert disgrace or as a means of atonement⁵⁷. Shapiro accepts the mandate to bury and states it is accepted as a *pasuk issur*; he also adds that we bury for the sake of atonement.⁵⁸ After Rambam's laws of mourning are discussed he claims that we bury as a *mitzvah* based on biblical law. He states, "If he requested not to be buried, we don't listen to him, because burial is a mitzvah: for it is written: bury, thou shall bury him." ⁵⁹ The next topic of discussion focuses on the determination if cremation is a disgrace to the met – via desecration of the body – and the ruling is against cremation.

"In the final analysis, there is no convincing reason why we should deviate from such a sacred established tradition. Now here in the Talmud is there any doubt vis-a-vis the established method of burial: the question merely centers around whether we should listen to a person who says "I don't want to be buried." The argument that we might someday run out of burial space is just not convincing in view of the fact that the Jews make up approximately 3/10 of 1% of the world's population."60

⁵⁵ The first RA responsa to cremation was published in 1892, written by Rabbi Solomon Freehof

⁵⁶ ibid

⁵⁷ Rabbi Morris M. Shapiro, Cremation in the Jewish Tradition

⁵⁸ ibid

⁵⁹ ibid

⁶⁰ ibid

A 2007 review of Rabbi I. Klein's Responsa⁶¹ is illustrative of the public demand ⁶² that exists for cremation. This responsa concentrates on the economic impact of burial, along with the decrease in ground available in cemeteries. After reviewing Deuteronomy, Sanhedrin, Rambam, and the conundrum of whether burial is rabbinic or biblical, Klein surmises.

One cannot miss the fact that the form of burial in the Bible and in rabbinic literature is always assumed to be burial in the ground. This, of course, includes burial in niches in caves. Burning is always mentioned as a bizyon hamet, a form of dishonoring the dead. Dr. Higger tries to distinguish between burning that is derekh bizayon (disrespectful) and burning that is derekh kavod (respectful). This may be a pragmatic observation of the contemporary scene, but there is no basis for it in halachah. Mutilation of the body even minimally is called nivul hamet (desecration of the dead). Burning would certainly fall into this category.⁶³

Even after Klein reviewed existing modern responsa, his position against fire cremation remained loyal to the original Conservative responsa.

Fire vs. Water Cremation

In distinguishing between fire cremation and AH, the biochemical process is quite different. In exploring this process, we turn to The Freeman Center, part of Texas State University, who research flesh decomposition after death⁶⁴. They look at a variety of factors in determining how quickly this happens. These factors include whether or not the met is in an casket (*aron*) and what kind of materials the *aron* is made out of; temperature; humidity; insects; bacterial

⁶¹ Responsa in a Moment, Volume 2, Number 3, December 2007; <u>Does Jewish Law Permit Cremation?</u> by Rabbi Isaac Klein z"l, edited by Rabbi David Golinkin

⁶² According to Aley Shalechet, owner of the first crematorium in Israel, cremation is chosen in the Western World as follows: Japan 99.9%; Switzerland 75.5%; England 73%; Sweden and Denmark 70%; Canada 45%; U.S. 32%; Spain 17.8%; Italy 16%.

⁶³ Klein Responsa

⁶⁴ The stages of decay are, as put forth in the Texas Freeman Ranch Study:

Initial decay (Known as 'autolysis') - externally the corpse looks okay, but internally the organs are breaking down.

Putrefaction - after approximately two-three days bacteria are active and the body is swollen with gases and accompanying odors.

Black Putrefaction - Skin starts to turn black and the corpse collapses as gases escape.

Fermentation - Very strong odors with some surface mold but the body has begun to dry out.

Dry Decay - The cadaver has for the most part dried out and the rate of decay has slowed considerably.

effects; soil type; depth of burial; body, size and weight; clothing. They report: "within six months to a year (depending on weather conditions) comes the final, dry stage, when the body is reduced to just a pile of cartilage, bones, and loose-hanging scraps of skin." It is clear from this research that AH does resemble the dissolving of flesh from the bones that occurs in natural settings, albeit at faster rate. One could articulate that AH is decomposing flesh out of the ground, instead of in it. Not only does it differ from fire cremation, it is better for the environment and is more economical. Specifically, it reduces the carbon footprint, and does not leech toxic chemicals into the earth. Perhaps it could be considered like the removal of bones from one gravesite to another – akin to the gathering of bones and return to the family burial ground.

There is precedent for the hastening of the dissolving of flesh. The RASHBA (Rabbi Solomon Ibn Adret, Barcelona, ca. 1235-1310) suggested that lime be put on the body⁶⁶ to hasten decomposition, a practice that was adopted by many of the pious living in the Land of Israel. When a body was going to be moved from one country to another, the practice of gathering the bones and returning it to ancestral burial, sometimes people would want to hasten decomposition. Can this ruling apply to rapid decommission through AH?

Rulings on Alkaline Hydrolysis

The CCAR/Reform movement, in <u>Burial of Remains from Resomation</u> state, "Alkaline hydrolysis is prohibited on the grounds that the liquefied remains (other than the bones) are discarded and not saved for burial. Our response is the same we would give to a question concerning cremation: whatever remains survive the chemical decomposition process should be buried, in (partial) fulfillment of the traditional *mitzvah* to bury the dead. Since, in theory, the liquefied remains can be preserved (unlike cremation, where the incinerated remains are emitted into the atmosphere), every effort should be made to bury them along with the bones of the deceased."⁶⁷

The State of Colorado, one of 18 states that currently legalized AH, allows the bereaved to choose what they do with the liquified remains. Since all of it is captured, it can all be put into

⁶⁵ https://www.vox.com/2014/10/28/7078151/body-farm-texas-freeman-ranch-decay

⁶⁶ RASHBA - Responsa, Vol. 1, No. 369

⁶⁷ CCAR

the smaller grave, where the bones are buried. Since Jewish law states that the size of the aron is connected to the femur (the longest bone), the liquid remains could to straight into the *kever.* This would satisfy this particular objection. They continue:

For the members of this Committee, the choice is clear: we seek to mourn our dead and to honor them as Jews, that is, in accordance with the customs and traditions of our people. Accordingly, we do not see much of a distinction between cremation and alkaline hydrolysis. The latter, true enough, was not utilized by the Nazis. But like cremation, it is a chemical process aimed at the rapid decomposition of human remains. Like cremation, it is a radical departure from traditional Jewish burial. And as with cremation, there is "a huge gulf" between the slow decay of burial and the rapid decomposition achieved through chemical inducement. Since the two procedures are so comparable, we cannot say that Reform Judaism would treat them differently. Thus, while it would not necessarily prohibit "Resomation" any more than it prohibits cremation, it would and should actively discourage the use of alkaline hydrolysis.⁶⁸

Lastly, CCAR addresses the issue of space:

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"[Per] discussion...on limitations of space. We have encountered this problem numerous times throughout our history, and the tradition has proven itself capable of arriving at solutions to the problem of cramped cemetery space. In addition, there is no theoretical reason why Jewish tradition cannot accommodate the contemporary movement toward "green burial" – that is, burial in the absence of concrete vaults, expensive coffins, embalming, and the like. Indeed, a simple reading of our sources indicates that "green burial" is *Jewish* burial, the way that our classic texts envision the *mitzvah*.⁶⁹

Integral Halachic Approach to the issue of Alkaline Hydrolysis

One could articulate that AH is decomposing out of the ground, instead of in it. Not only does it differ from fire cremation, it is better for the environment; it is more economical, reduces the carbon footprint, and does not leech toxic chemicals into the earth. Perhaps it could be considered like the removal of bones from one gravesite to another – akin to the gathering of

⁶⁸ Ibid.

⁶⁹ ibid

bones and return to the family burial ground. For such a consideration to be furthered the issue of rapid disintegration through a chemical process needs to be analyzed. There is also the question of the soul's response to such a rapid disintegration. Does the soul indeed go through its judgment process while the flesh is dissolving from the bones? Would a rapid disintegration leave the soul at odds? And, how do we discern and measure this?

Integral halacha asks that the sh'eila be explored in a way that includes what the tradition has put forth, yet also transcends those decisions, if the situation warrants it. It mandates that we build new approaches that are compatible with the past and bridges to a different future. Which factors shall be considered, in creating a ruling? Reb Zalman says, "It is not only that we need to handle the internal machinery of the mind with which we are going to solve these problems. ...we have to go into the system files of the head and restructure; consciousness itself. 70 Economic concerns have been a part of Jewish law since biblical times, and even as Torah comments on environmental factors, they are not explicit. Integral halacha sees the environment as a living organism, and asks that we make decisions that invite a sustainable ecology.⁷¹ Other important principles in regard to this *teshuvah* are paradigm shift (is it time to look at body interment in a different way due to above mentioned factors?); shared values. and looking at the impact of our decisions on the next seven generations.⁷² Emerging cosmologies today have different frames or reality maps that have to be taken into consideration.

Analysis

Because the laws of interment are minhag rather than halachic, there seems to be some flex in the ruling against cremation. We have learned that to honor the tradition, it is necessary to create a proper disposition of the *met*, preferably through burial. Since *Kavod hamet* is essential in making all decisions, the default is to follow normative burial customs, and to ban fire cremation. The question remains, are there enough anomalies in modern society to warrant a paradigm shift, to deal with the unique moment in history we find ourselves in? Do

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⁷⁰ Zalman, Integral Halacha, Page 45

⁷¹ Ibid, Page 52.

⁷² Ibid, Pages 54-55.

the economic and environmental circumstances invite something new? Even as Klein said no, are his reasons compelling enough to turn our back on these important issues?

I can make an argument for a paradigm shift in water cremation as it resembles rapid decomposition of the flesh that naturally occurs in the ground. Water cremation is different than fire cremation. We have shown how the AH chemical process is; it does not desecrate the *met* in the same way, as it is a melting of the flesh that already occurs naturally, and hastening decomposition has proof texts in the past. If we chose this thought process, we would say it is more like the ancient practice of gathering and burying the bones. In this scenario, the AH drum is the shallow field, and the gathering of the bones for proper interment is connected to the ancient practices mentioned above. It is like burying in the field, and transporting the bones to bury them in a grave, much like what our ancestors did when they gathered the bones after the flesh had dissolved. According to Ed Gazvoda⁷³, one of the pioneers in using AH, the bones do not have to be pulverized. If the bereaved would like to collect and bury the bones, he would have no problem complying with their request. Hence, one could take the (mostly intact) bones, gather them, and bury them in smaller caskets put into the ground, saving space and reducing carbon footprint. Given the importance of environmental factors, economic impact, and modern values, along with the traditions capacity to respond to new technology, the answer to the utilization of AH would be yes.

What is unclear is whether or not hastening dissolving of the flesh matters to implementation of kavod hamet and the care of the soul. There is also the consideration that all marrow and other DNA would have been stripped during the process; does thus affect the 'soul's reshimu' in the bone? This consideration is a new approach, born out of the integral halachic process. And, this is difficult to assess and impossible to monitor, as some of these issues are part of the mystery of death.

In order to process these questions, I will begin by sharing my 20 years of experience in both the tahara and shmira room. In this time, I have developed sensitivity to the *met* along with an ability to understand that there IS a *kapara* process that goes on. Teshuva does happen

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⁷³ Private conversation June 2020

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after death and the journey of the soul matters. If I am to trust in the eternal nature of the soul, and accept that the soul (*ruach* according to Malbim) will continue to process its deeds, then I have to take this into consideration.

In all my research, I did not find a discussion of the soul's journey after death, only the short-term journey of the *met* from death to burial. Looking into the process of the soul's longer journey after death, coupled with understanding the traditions recitation of the Kaddish for eleven months as the soul's reconciliation with incarnation into flesh occurs, I believe there is a new way to assess this issue. I believe that the rapid decomposition of the flesh would cause anguish to the soul. In the souls wanderings, as it is separating from the body per what has been stated above, the AH process would not allow for the full process of *kapara* to take place in a manner that has existed for millennium. This would be confusing to the soul and could affect its transmigration. Also, lack of DNA in the bones could affect the *reshimu* of the soul in the bones, which is considered important.

For this reason, I am hesitant to tell Mr. Ziskin that alkaline hydrolysis is acceptable for dealing with the *met*, if the bereaved wants to stay connected to Jewish tradition. In order to use this process, there would have to be an additional ceremony created, to assist the soul in its journey in the after-life.

I have gone through a variety of thought processes on this ruling. At first, I was sure I could find a way to approve it. Then I was sure I could not. And now, I realize that if I am to honor the integral halachic process, and embrace new ways of thinking that are connected to the past, that I can find a way to say yes. I can see how it benefits both economic and environmental issues. There is precedent in the tradition to bring a *met* to a place where flesh decomposes, and then bury the collected bones. As I come to understand the care and journey of the soul, I realize the AH process could be jarring to the soul. Yet, the soul of humans is the lamp of God, and all is possible in the name of the Creator. Understanding our shared values of caring for Gaia, that mental mitzvot are viable. ⁷⁴ and that seven

⁷⁴ Integral Halachah, Page 59

generational thinking is a developmental advancement in Jewish thinking. 75 I believe that a ceremony could be created to assist the soul in the jarring experiencing of rapid flesh decomposition. If this is added to the mechanics of the decomposition of the met (and only if). I believe that Alkaline Hydrolysis is an acceptable form of interment of the *met* for a Jewish burial. We are ensuring that land use for burial can honor the met, care for the bones and burial footprint at the same time, and that ceremonies that assist the soul in the rapid decomposition. With these conditions in place, I can tell Mr. Ziskin, yes, Alkaline Hydrolysis is a viable method in the interment of the met.

Appendix One – The process after death

Teshuva on Alkaline Hydrolysis

Four Stages of Uninterred Decomposition

§ Fresh 1-6 days

Cellular autolysis begins, rigor mortis peaks in 24

hours, blood pooling (livor mortis), skin slippage

§ Bloat 7-23 days

Liquefaction, gas releases freons, benzene,

sulfur, carbon tetrachloride

§ Active Decay 24-50 days

Tissue decomposition complete, anaerobic

saponification

§ Dry 51-64 days

Skeletal, odor free

Appendix Two – The biology of Alkaline Hydrolysis⁷⁶

Overview of Alkaline Hydrolysis. Alkaline hydrolysis is a natural process. Here is some information:

•Bodies buried in the earth are degraded by alkaline hydrolysis, expedited by the soil bacteria -a slow process.

⁷⁵ Ibid, Pages 55 & 57

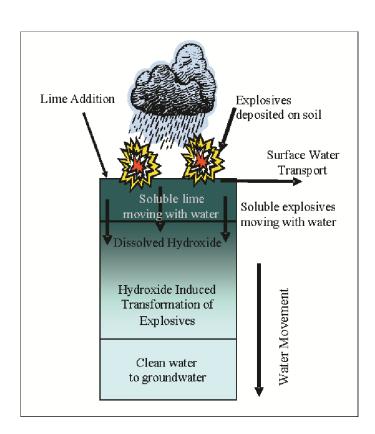
⁷⁶ Wilson, The History of AH

- •Food in the small intestine is digested to usable nutrients by alkaline hydrolysis, expedited by enzymes that operate at pH 7-8 at body temperature –a moderately fast process for relatively small amounts of tissue.
- •The use of strong alkali (pH 14) solubilizes and hydrolyzes tissue, expedited by heat in stainless steel vessel –a very fast process for large amounts of tissue.
- •Alkaline hydrolysis (AH) generates a sterile, EPA neutral solution of amino acids, peptides, sugars, and soap that is suitable for release to a sanitary sewer, dehydration for landfill, or for use as fertilizer or for composting.
- •Proteinsare hydrolyzed to amino acids and small peptides by breaking of amide (peptide) bonds.
- Carbohydratesare clipped from glycoproteins.
- •Fats: Ester bonds between fatty acids and glycerol are hydrolyzed, yielding completely biodegradable soaps; Glycolipids and polyunsaturated fats are also destroyed
- .•Nucleic acids:Phosphodiester bonds of nucleotide chains are hydrolyzed, RNA rapidly, DNA more slowly.
- •AH destroys all pathogens, including prions.
- •AH converts fixatives (such as embalming agents including glutaraldehyde, formaldehyde, phenol, etc.), cytotoxic agents (such as chemotherapy drugs), and other toxins to harmless, biodegradable derivatives.
- •AH converts biological and chemical warfare agents, to harmless, biodegradable derivatives.

So What Does All of This Mean?

Alkaline hydrolysis is in a sense the opposite of burning by fire. Burning is an oxidative process, whereas alkaline hydrolysis is a reductive process. Muscles, collagen, and hair are made of protein. In the AH process, proteins are reduced to their basic building blocks ,called amino acids. Small groups of amino acids remain and are called peptides. Fats are reduced to biodegradable soap. Sugars are formed and nutrients are released (minerals). Chemicals such as embalming agents, cytotoxic drugs, etc. are broken down into basic nutrient elements. Water is liberated as the fats and proteins are reduced, and the bones and teeth, which are made of mineral ash called calcium phosphate, are not dissolved. Bones and teeth are like a sponge interlaced with collagen. As the collagen is broken down the bones

become more and more fragile. The ends of the bones, the skull, the pelvis and other bones become very fragile while the denser shafts of the long bones and the teeth retain Above: This chain of eight aminoacids (called an octopeptide) is broken down into smaller random fragments in the alkaline hydrolysis process. All materials become sterile due to the temperature of the process and the breakdown of the proteins. All microorganisms consist of protein, and they are broken down into amino acids and small peptides as well. DNA and RNA are proteins, and as stated above those are also broken down into the basic elements.







Green cremation is a much more eco-friendly process. Compared to cremation, alkaline hydrolysis offers:

- More than 75% reduction of carbon footprint
- Uses 1/8 the amount of energy of flame-based cremation
- Pacemakers and some other medical devices do not need to be removed prior to the process as with flame-based cremation
- Mercury from dental amalgam is contained and recycled, not vaporized
- Preserves more bone fragments than flame cremation

Appendix Three

From the Jewish Funeral Guide

Jewish Attitude to Death: The Body after Death

As was already mentioned, the disembodied soul is aware of everything that happens in the physical world. In the beginning though, the soul is in a state of confusion. The soul is overwhelmed with the vast amount of information that is no longer screened through the brain and the nervous system, which used to weed out most of the sensory data not essential for survival.

The soul has yet to learn how to focus on anything besides its previous body that the soul used to identify itself with. The <u>Talmud</u> in Tractate <u>Shabbat 152b</u> tells us that the soul mourns for its body the first seven days after the death, as alluded to in the verse, "His soul mourns for him / ונפשו עליו (Job 14:22). For the first twelve months after death, until the body decomposes, the soul hovers over the body. The Talmud in Tractate <u>Shabbat 152b</u> relates that during this time "the soul ascends and descends / כל י"ב הדש גופו קיים ונשמתו עולה ויורדת. In other words, as Nachmanides explains (<u>Ramban, Torat haAdam, Shaar haGemul, 86</u>), during the first twelve months the body still has an influence on the soul. Even though the soul ascends and explores the spiritual world, it still descends to its familiar previous state when it was bound to the body. After twelve months the body no longer affects the soul and therefore the soul ascends and does not descend.

The soul is aware of and identifies with the decomposition of the body, which is very painful to the soul. The Talmud in Tractates Berachot 18b and Shabbat 152b tells us that "Worms are as painful to the dead as needles in the flesh of the living / יהוה למת כמחט בבשר החי ", as it is written: "Even his flesh upon him will be in pain / אך בשרו עליו יכאב (Job 14:22). The Kabbalists call this Chibut HaKever / היבוט הקבר - punishment of the grave. We are taught, continues Rabbi Aryeh Kaplan, that what the body experiences in the grave can be even worse than the experience of Gehinnom / גיהנום. That, however, depends on the individual. For those who put a priority or materialism, this deterioration of the body is most painful. But those whose life focus was more spiritual and who never considered their worldly body overly important, are not bothered by Chibut HaKever.

For most of us death is extremely frightening. The righteous, on the other hand, always looked forward to it. Shortly before his death, Rabbi Nachman of Breslov said, "I very much want to divest myself of this garment that is my body" (Sichos HaRan, 179). If we truly believe and trust in a merciful God, concludes Rabbi Aryeh Kaplan, then death has no terror for us.

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28. Genesis 3:19

ּבְּזֵעָת אַפֶּּירְ ּתִּאכַל לֶּחֶם עַד שְׁוּבְרְ אֶל־הָאָדָמָה כִּי מִמֶּנָה לֻקֶּחְתָּ כִּי־ עָפֵר אֵׁתָּה וְאֶל־עָפֶר תָּשְׁוּב: By the sweat of your brow Shall you get bread to eat, Until you return to the ground— For from it you were taken. For dust you are, And to dust you shall return."

יִט אָבְרָהָם אֶת-שָּׂרָה אִשְׁתְוֹ, יִט אָל-מְנֶרִי-כֵן קָבַר אַבְרָהָם אֶת-שָּׂרָה אִשְׁתוֹ, אָל-מְעָרַת שְׁדֵה הַמַּכְפֵּלָה עַל-פְּנֵי מַמְרֵא--הִוֹא אָל-מְעָרַת שְׁדֵה הַמַּכְפֵּלָה עַל-פְּנֵי מַמְרֵא. כְּנַעַן.

19 And after this, Abraham buried Sarah his wife in the cave of the field of Machpelah before Mamre--the same is Hebron--in the land of Canaan.

30. Gen. 35:20

ַנְצֵב יַעֲקֹב מַצֵּבָה, עַל-קְבֶרֶתָה--הָוֹא בּ מַצֵּבֶת קבַרת-רָחֵל, עַד-הַיּוֹם. **20** And Jacob set up a pillar upon her grave; the same is the pillar of Rachel's grave unto this day.

31.Gen. 49:29-32

וַיְצוּ אוֹתָם, וַיֹּאמֶר אֲלֵהֶם אֲנִי נֶאֶסָף כּט אֶל-אֲבֹתִי: אֶל- ,אֶל-עַמִּי--קְבְרוּ אֹתִי הַמִּעֲרַה--אֵשֶׁר בִּשִּׁדָה, עַפְרוֹן הַחְתִּי.

בּמְעָרָה אֲשֶׁר בִּשְׂדֵה הַמַּכְפֵּלָה, אֲשֶׁר לּ עַל-פְּנֵי-מַמְרֵא--בְּאֶרֶץ כְּנָעַן: אֲשֶׁר קָנָה --יַאָּתָד, מֵאֵת עֶפְרֹן הַחִתִּי-אַבְרָהָם אֶת-הַשָּׂדֶה, מֵאֵת עֶפְרֹן הַחִתּי-קַבֶּר לַאֲחָזַת-קַבֶּר.

שָׁמָה קָבְרוּ אֶת-אַבְרָהָם, וְאֵת שָׂרָה **לֹא** שָׁמָּה קָבְרוּ אֶת-יִצְחָק, וְאֵת ,אִשְׁתּוֹ רָבְקָה אִשְׁתּוֹ; וְשְׁמַה קַבַרְתִּי, אֶת-לֵאָה.

ָמָקְנֵה הַשָּׁדֶה וְהַמְּעָרָה אֲשֶׁר-בּּוֹ, **לב** מֵאָת בְּנִי-חַת. **29** And he charged them, and said unto them: 'I am to be gathered unto my people; bury me with my fathers in the cave that is in the field of Ephron the Hittite,

30 in the cave that is in the field of Machpelah, which is before Mamre, in the land of Canaan, which Abraham bought with the field from Ephron the Hittite for a possession of a burying-place.

31 There they buried Abraham and Sarah his wife; there they buried Isaac and Rebekah his wife; and there I buried Leah.

32 The field and the cave that is therein, which was purchased from the children of Heth.'

32. Genesis 50:25-26

ה יַשְׂרָאֵל יוֹסֵף, אֶת-בְּנֵי יִשְׂרָאֵל יַנְּשְׁבָּע יוֹסֵף, אֶת-בְּנֵי יִשְׂרָאֵל יָבְּלְתָם לֵאמֹר: פָּקֹד יָפָקֹד אֱלֹהִים אֶתְּכֶם, וְהַעֲּלְתָם לֵאמֹר: אָת-עַצְמֹתַי מְזָּה אָת-עַצְמֹתַי מְזָּה.

וַיָּמֶת יוֹסֵף, בֶּן-מֵאָה וָעֶשֶׂר שָׁנִים; כּוּ וַיַּמָת יוֹסֵף, נַּיִישֶׂם בָּאָרוֹן בְּמִצְרִיִם. {שׁ **25** And Joseph took an oath of the children of Israel, saying: 'God will surely remember you, and ye shall carry up my bones from hence.'

26 So Joseph died, being a hundred and ten years old. And they embalmed him, and he was put in a coffin in Egypt.

Num. 19:16;

וְכֹל אֲשֶׁר-יִגַּע עַל-פְּנֵי הַשָּׁדָה, בַּחֲלַל-חֶרֶב שז אוֹ בְמֵת, אוֹ-בְעֶצֶם אָדָם, אוֹ בְקָבֶר--יִטְמָא, שָׁבְעַת יָמִים. שָׁבְעַת יָמִים. **16** And whosoever in the open field touches one that is slain with a sword, or one that dies of himself, or a bone

33. Deut. 21:22-23

לא-תָלִין נִבְּלָתוֹ עַל-הָעֵץ, כִּי-קָבוֹר **כג** תִּקְבָּרֶנּוּ בַּיּוֹם הַהוּא--כִּי-קְלְלַת אֱלֹהִים, 23 his body shall not remain all night upon the tree, but thou shalt surely bury him the same day; for he that is

אָת-אַדְמָתְךָּ, אֲשֶׁר ,תָּלוּי; וְלֹא תְטַמֵּא (o יָהוָה אֱלֹהֶיךָ, נֹתֵן לְךָ נַחֶלָה. (o hanged is a reproach unto God; that thou defile not thy land which the LORD thy God giveth thee for an inheritance. **{S}**

34. Tob. 1:17-18

¹⁷ I would give my bread to the hungry and clothing to the naked. If I saw one of my people who had died and been thrown behind the wall of Nineveh, I used to bury him.^[a]
¹⁸ Sennacherib returned from Judea, having fled during the days of the judgment enacted against him by the King of Heaven because of the blasphemies he had uttered; whomever he killed I buried. For in his rage he killed many Israelites, but I used to take their bodies away by stealth and bury them. So when Sennacherib looked for them, he could not find them.

35. Tobit 3:3-4

³ So he called his son Tobiah; and when he came, he said to him: ^[a] "Son, when I die, give me a decent burial. Honor your mother, and do not abandon her as long as she lives. Do whatever pleases her, and do not grieve her spirit in any way. ⁴ Remember, son, how she went through many dangers for you while you were in her womb. When she dies, bury her in the same grave

36. Talmud Sanhedrin 96b

שלחו כר מושל ארץ מסלע מדברה אל הר בת ציון שלח להו אי אתינא (<u>ישעיהו טז, א</u>) שלחו ליה תא אשינא דטורא שנאמר בעת ההיא נאום ה' יוציאו (<u>ירמיהו ח, א</u>) לית לי דוכתא דיתיבנא ביה שלחו ליה קברות שלהם מעולין מפלטירין שלך דכתיב את עצמות מלכי יהודה ואת עצמות שריו ואת עצמות הכהנים ואת עצמות הנביאים ואת עצמות יושבי ירושלים מקבריהם ושטחום לשמש ולירח ולכל צבא השמים אשר אהבום ואשר עבדום ואשר הלכו אחריהם

Nebuchadnezzar sent to them: If I come to Jerusalem, I will have no place to dwell while laying siege to the city. Ammon and Moab sent to him: Their burial caves are superior to your palaces, and you can clear the caves and dwell there, as it is written: "At that time, says the Lord, they shall remove the bones of the kings of Judea, and the bones of his princes, and the bones of the priests, and the bones of the prophets and the bones of the inhabitants of Jerusalem from their graves; and they shall spread them before the sun and the moon and all of the hosts of heaven, whom they have loved, and whom they have served, and after whom they have walked" (Jeremiah 8:1–2). Ultimately Nebuchadnezzar came to conquer Judea and removed the corpses to make room for his army

37. Yoreh De'ah 362

One who places his dead in a coffin and did not bury. it. in the earth, transgresses thereby a [negative command] because he keeps the dead over night [unburied]. Derived from <u>San. 46b</u> where it is stated that R. Joḥanan said that burial in the earth is referred to by the Torah in the verse, 'Thou shalt surely bury him' (Deut. XXI, 23). The emphatic infinitive (תקברנו) denotes burial in the earth. Otherwise, one transgresses the injunction, 'His body shall not remain all night' (ibid.). Placing the corpse in a coffin is alluded to in the question that King Shapor asked R. Huna (San. ibid.). It is not obligatory to bury an amputated limb of

a living being. However, since it defiles, Kohanim are prohibited against being in the same room with it — P.Tesh. If he placed him in a coffin and buried it The coffin. Perisha. in the earth, he does not transgress [a negative command] on his account. Y.M.K. I, 5(80c bot.); Y.San. VI, 12(23d bot.): 'In former days they buried them (the convicts) in deep pits etc. and they were placed in a coffin' (v. W.G.), i.e., after the flesh became decomposed they were placed in a coffin. Thus also Asheri. infra § 363, 4. Nevertheless, it is [more] BaḤ. appropriate to bury him in the earth proper even [when he is buried] outside the Land [of Israel].

38. Sotah 14a

Just as the Holy One, Blessed be He, consoles mourners, as it is written: "And it came to pass after the death of Abraham, that God blessed Isaac his son" (Genesis 25:11), so too, should you console mourners. Just as the Holy One, Blessed be He, buried the dead, as it is written: "And he was buried in the valley in the land of Moab" (Deuteronomy 34:6), so too, should you bury the dead.

26. Rambam Mishneh Torah 15:8

ּ כֵּיצַד מִצְוַת הַנִּתְלִין. אַחַר שָׁסּוֹקְלִין אוֹתָן מְשַׁקְעִין אֶת הַקּוֹרָה בָּאָרֶץ וְעֵץ יוֹצֵא מִמֶּנָּה וּמַקִּיפִין שְׁתֵּי יָדָיו זוֹ לָזוֹ וְתוֹלֵהוּ לֹא תָלִין " (דברים כא כג)סָמוּךְ לִשְׁקִיעַת הַחַמָּה וּמַתִּירִין אוֹתוֹ מִיָּד. וְאָם לָן עוֹבְרִין עָלָיו בְּלֹא תַּעֲשֶׂה שֶׁנֶּאֱמֵר נְבְלַתוֹ עַל הַעֵּץ:

It is a positive mitzvah to bury the persons executed by the court on the day of their execution, as *Ibid.* states: "For you shall surely bury him on that day."

Not only those executed by the court, but anyone who leaves a deceased overnight without burying him transgresses a negative commandment. If, however, a burial is delayed overnight to honor the deceased, e.g., to bring a coffin or shrouds, there is no transgression.

27. Rambam Mishneh Torah 12

הַהֶּסְפֵּד כְּבוֹד הַמֵּת הוּא. לְפִיכָךְ כּוֹפִין אֶת הַיּוֹרְשִׁין לְתֵּן שְׂכַר מְקוֹנְנִים וְהַמְקוֹנְנוֹת וְסוֹפְּדִין אוֹתוֹ. וְאָם צְּוָה שֶׁלֹּא (דברים כא כג)יִסְפְּדוּהוּ אֵין סוֹפְדִין אוֹתוֹ. אֲבָל אִם צִוָּה שֶׁלֹּא יִקְבֵר אֵין שׁוֹמְעִין לוֹ. שֶׁהַקְבוּרָה מִצְוָה שֶׁנֶּאֱמֵר (דברים כא כג)יִסְפְּדוּהוּ אֵין סוֹפְדִין אוֹתוֹ. אֲבָל אִם צִוּה שֶׁלֹּא יִקְבֵר אֵין שׁוֹמְעִין לוֹ. שֶׁהַקְבּוּר "נִי קַבוֹר תִּקְבְּרֵנוּ":

Funeral rites are held in honor of the deceased. Accordingly, the heirs are compelled to pay a fee to wailing men and women who eulogize the dead. But if the deceased charged in his will not to eulogize him, he should not be eulogized. If, however, he charged in his will not to bury him, his wish is not heeded, because burying the dead is a religious duty, as it is written: "You must bury him" (Deuteronomy 21:23).

28. Kitzur Shulchan Aruch 199

The burial mentioned in the Torah, means actually placing the body in the earth. 1 Cremation of the body is forbidden and those who ask to be cremated are considered transgressors and heretics as they deny the resurrection. Their ashes are forbidden to be interred in a Jewish cemetery and there should be no mourning over them. (See Yora Deiah 345:5)

In many places it is customary to place the deceased in a wooden coffin, and he is buried in that manner. Since it is impossible that such a coffin is without holes [at the bottom], it is sufficient to bury him is such a way. In some places the body is buried without a coffin, rather it is placed actually on the earth, without a board underneath, but with one board placed on each side, and one more board on top of them to prevent any dirt from falling upon the body, which would be a dishonor to him. In other communities, ordinary men are buried without a coffin, and only for *kohanim* and firstborn males, who are of special importance, are coffins made. When making a coffin, care must be taken that the remnants of the boards not be used for any other purpose. They should be burned for fuel to heat the cauldron in which water is warmed for the ritual purification of the deceased. Benevolent people, who in their lifetime fed the poor at their table, should be buried in a coffin made of boards from the table, as it is written, "And your righteousness shall go before you."²

29. Maimonides, Sefer Hamitzvot (mandatory laws), no. 231

The 231st *mitzvah* is that we are commanded to bury those who have been executed by the High Court on the same day of their execution. The source of this commandment is G-d's statement (exalted be He), "[You may not allow his body to remain on the gallows overnight,] you must certainly bury him on the same day." The *Sifri* says, "The phrase, 'You must certainly bury him' is a positive commandment." This law applies to all deceased; every Jew should be buried on the day in which he passes away. This is the reason why a person who has nobody to arrange his burial is called a "*met mitzvah*." This means that he is a *met* (dead person) for which the *mitzvah* is on every individual to bury. [The *mitzvah* referred to is] G-d's statement (exalted be He), "You must certainly bury him [on the same day].

30. Sefer ha CHinuch Mitzvah 537 תקל"ז

כי קבור תקברנו ביום ההוא וגו'. ולשון (דברים כא כג) לקברו בו ביום וכן כל המתים - לקבר מי שנתלה ביום ההוא, שנאמר ספרי (כאן) כי קבור תקברנו ביום ההוא מצות עשה.

To bury him on the same day, and so [too] all the dead: To bury the one that was hung on that [same] day, as it is stated (Deuteronomy 21:23), "rather you shall surely bury him on that day, etc." And the language of Sifrei here is "'Rather you shall surely bury him on that day' is a positive commandment."

Gathering the Bones

31. Exodus 13:19

ַרָּאָל מָּשֶׁה אֶת־עַצְמָוֹת יוֹסֵף עִמֶּוֹ כִּי[°]הַשְׁבֵּעַ הִשְׁבִּיעַ אֶת־בְּנֵי יִשְׂרָאֵל לֵאמֹר פָּלְּד יִפְקֹד אֱלֹהִים אֶתְּלֶם וְהַעֲּלִיתָם אֶת־עַצְמֹתַי מְּשָׁה אֶת־עַבְּמוֹת יוֹסֵף עִמֶּוֹ כִּי[°]הַשְׁבַּעַ הָשְׁבְּיעַ אֶת־בְּנֵי יִשְׂרָאֵל לֵאמֹר פָּלְד יִפְקֹד אֱלֹהִים אֶתְּלֶם וְהַעֲּלִיתָם אֶת־עַצְמֹתַי מְּשָׁה אָתּבֶם:

And Moses took with him the bones of Joseph, who had exacted an oath from the children of Israel, saying, "God will be sure to take notice of you: then you shall carry up my bones from here with you."

32. Yerushalmi Moed Katan 5a:1

ר מאיר מלקט אדם עצמות אביו ואמו מפני ששמחה היא לו .בראשונה היו קוברין אותן במהמורות נתאכל הבשר היו מלקטין את העצמות וקוברין אותן ברזים אותו היום היה מתאבל ולמחר היה שמח לומר שנינוחו אבותיו מן הדין.

R Meir said, one collects the bones of his father or mother because of the simcha it brings him. At first they were buried in mounds, [after] the flesh was consumed they would gather the bones and bury them in "razim" (a kind of ossurary or aron, maybe cedar (ארז), see Blau note 12, p 16). That day they mourned and the next day they were joyful saying that their ancestor was relieved of (at ease from) his judgment.

33. I Samuel 31:11-13

ַוַיִּשְׁמִעוּ אֵלֵיו ישָׁבֵי יַבִּישׁ גּּלְעֻד אֱת אֲשֶׁר־עֲשָׂוּ פָּלְשָׁתִּים לְשַׁאָוּל:

When the inhabitants of Jabesh-gilead heard about it—what the Philistines had done to Saul—

וַיָּקֿוּמוּ כָּל־אָישׁ חַיִל וַיֵּלְכָוּ כָל־הַלַּיְּלָהָ וַיִּקְחוּ אֶת־גְּוַיָּת שָׁאוּל וְאֵת ֹגְוּיַּת בָּנָיו מֵחוֹמַת בֵּית שֶׁן וַיָּבְאוּ יָבֵּשָׁה וַיִּשְׂרְפִוּ אֹתָם שֵׁם:

all their stalwart men set out and marched all night; they removed the bodies of Saul and his sons from the wall of Beth-shan and came to Jabesh and burned them there.

וַיָּקְחוֹ אֵת־עַצְמָתֶיהֶם וַיִּקְבָּרוּ תָחַת־הַאֲשֶׁל בִּיַבֶשָׁה וַיַּצֵמוּ שָׁבָעַת יַמִים: (פ

Then they took the bones and buried them under the tamarisk tree in Jabesh, and they fasted for seven days.

34. Semachot 12:6

אין מפרקין את העצמות ואין מפסיקין את הגידים אלא אם כן נתפרקו עצמות מעצמן ונפסקו הגידין מעצמן.

We do not break the bones nor sever the sinews [of a corpse] unless the bones were already broken of their own accord and the sinews severed of their own accord.

35. Semachot 13:1

המלקט עצמות והמשמר עצמות פטור מקריאת שמע ומן התפלה ומן התפילין ומכל מצות האמורות בתורה ואם רצה להחמיר על עצמו לא יחמיר מפני כבוד עצמות רבי יוחנן בן נורי אומר ירחיק ארבע אמות ויקרא רבי שמעון בן עזריה אומר אם היו אחרים עמו יסלקום למקום וקורא רבי יצחק אומר של קרובים פטור ושל אחרים חייב ר' שמעון אומר חייב בשבת ובחול פטור אחרים עמו יסלקום למקום וקורא רבי נתן אומר אם יש תפלתו עליו הרי זה פטור שזיקת שמירתו עליו ולא זיקת התפילה.

One who gathers or guards bones is exempt from reading the *Shema*, the *Tefillah*, from *tefillin* and all the commandments prescribed by the Torah. Should he desire to impose a strict view upon himself, he may not do so because of the honor of the bones. His obedience of laws, from which he is exempt, would result in delay in the burial of the bones. R. Joḥanan b. Nuri said: He should withdraw a distance of four cubits and read [the prayers]. R. Simeon b. 'Azzai said: If he was travelling on a ship with the bones, he should remove them to another part [of the vessel] and read.². R. Isaac said: If they are the bones of a near relative

he is exempt, but if of strangers he is under obligation.

36. Shulchan Aruch, Yoreh De'ah 363

בלא ארון עד שיתעכל הבשר ואחר כך מלקטין (פי' בשוחות עמוקות מן במהמורות בל יקומו)מקום שנוהגין לקבור במהמורות בלא ארון עד שיתעכל הבשר ואחר כך מלקטין (פי' בשוחות עמוקות מותר:

[In] a locality where it is customary to bury [the dead first] in depressions without a coffin, until the flesh is decomposed, and afterwards one collects the bones and buries them in a coffin, it is permitted.

Care of the Soul; kevod ha-beriyot – concern for human dignity

37. The Mitzva of Burial, based on a shiur by Harav Aharon Lichtenstein https://www.etzion.org.il/en/mitzva-burial

"Do not let his corpse remain on the stake overnight, but you must rather bury him the same day" (<u>Devarim 21:23</u>). Rashi, commenting on this verse, notes several reasons for this obligation:

- 1. A hung person infringes upon the honor of divine kingship, since the human being is created in the image of God.
- 2. An unburied corpse defiles the sanctity of the land, as the verse continues, "you shall not defile your land."

We may add a third possible reason: concern for the dignity of the human being himself. The Torah does not mention this reason, perhaps because it does not apply to the immediate context at hand – the burial of harugei Beit-Din (sinners executed by the court). In the Gemara, however, we indeed find such a concept even with regard to harugei Beit-Din: "You shall love your fellow as yourself – choose for him a favorable death [when sentencing him to execution]" (Sanhedrin 45a). It thus emerges that the concept of "kevod ha-beriyot," concern for human dignity, applies even to executed sinners."

37. Bava Batra 100b:3

משום יקרא דשכבא — ומסבירים: וטעמו של דבר .דרך הקבר אין לה שיעור בעוד שנינו במשנה — משום יקרא דשכבא . על מנת שלא להגביל את מספר המלווים של המת, ולעכב אותם בדרכם [כבודו של המת].

The mishna teaches: The **path for** those accompanying a deceased person to **a grave has no** maximum **measure**. The Gemara explains: This is **due to the honor of the deceased**.

38. Sannhedrin 45a

ואהבת לרעך כמוך ברור לו (ויקרא יט, יח) וכ"ת ליעביד בה תרתי אמר רב נחמן אמר רבה בר אבוה אמר קרא מיתה יפה

And if you would say that two forms of chastening, both stoning and humiliation, should be done to her, Rav Naḥman says that Rabba bar Avuh says: The verse states: "You shall love your neighbor as yourself" (Leviticus 19:18), teaching that even with regard to a condemned

prisoner, select a good, i.e., a compassionate, death for him. Therefore, when putting a woman to death by stoning, she should not be humiliated in the process.

39. Proverbs 22:2

עָשִׁיר וָרָשׁ נִפְגָשׁוּ; עֹשֵׂה כֻלָּם בּ יְהוָה. **2** The rich and the poor meet together--the LORD is the maker of them all.

40. Sannhedrin 6:6

אָם כֵּן הַמָּקוֹם מִצְטַעֵר עַל דָּמָם שֶׁל רְשָׁעִים שֶׁנִּשְׁפַּךְ, קֵל וָחֹמֶר עַל דָּמָם שֶׁל צַדִּיקִים. וְלֹא זוֹ בִלְבַד, אֶלָּא כָּל הַמֵּלִין אֶת מֵתוּ הָּלְינוֹ לְכָבוֹדוֹ לְהָבִיא לוֹ אָרוֹן וְתַכְרִיכִים, אֵינוֹ עוֹבֵר עָלָיו. וְלֹא הָיוּ קוֹבְרִין אוֹתוֹ בְּקַבְרוֹת אֲבוֹתִיו, אֶלָּא .עוֹבֵר בְּלֹא תַעֲשֶׂה הֶלִינוֹ לְכָבוֹדוֹ לְהָבִיץ וְאָחַת לַנִּסְקְלִין וְלַנְשְׂרָפִין : שְׁתֵּי בָהֵי קְבָרוֹת הָיוּ מְתַקְנִין לְבֵית דִּין, אַחַת לַנָּהָרָגִין וְלַנֶּחָלָין וְלַנְשְּׁרָפִין :

If God is so grieved over the blood of the wicked that is shed, how much more so over the blood of the righteous! And not only of this one [a criminal did the sages not to leave him overnight] but whosoever lets his dead lie over night transgresses a negative commandment. If he kept him over night for the sake of his honor, to procure for him a coffin or a shroud, he does not transgress. And they did not bury him [the executed person] in his ancestral tomb, but two burial places were prepared by the court, one for those who were decapitated or strangled, and the other for those who were stoned or burned.

41. Rashba

About flesh decomposing

42. Sforno

ולא תטמא, do not allow the spirit of impurity, death, to linger overnight in a location where a body remains unburied.

<u>43. Shulchan Arukh, Yoreh De'ah 403:7 יורה דעה ת"ג:זי</u>

A collection of **bones** [for final **burial**] is made only after the flesh has become decomposed;

<u>44. Sanhedrin 46a:17ייו א:יייז</u>

לא היו קוברין אותו בקברות אבותיו אלא שתי בתי קברות היו מתוקנין לבית דין אחת לנהרגין ולנחנקין ואחת לנסקלין ולנשרפין נתעכל הבשר מלקטין את העצמות וקוברין אותן במקומן והקרובים באים ושואלים בשלום הדיינין ובשלום העדים ולנשרפין נתעכל הבשר מלקטין את העצמות וקוברין אותן במקומן והקרובים באים ושואלים בשלום שדין אמת דנתם כלומר שאין בלבנו עליכם שדין אמת דנתם

After the executed transgressor is taken down he is buried, and they would not bury him in his ancestral burial plot. Rather, two graveyards were established for the burial of those executed by the court: One for those who were killed by decapitation or strangled, and one for those who were stoned or burned. Once the flesh of the deceased had decomposed, they would gather his bones and bury them in their proper place in his ancestral burial plot. And soon after the execution, the relatives of the executed transgressor would come and inquire about the welfare of the judges and

about the welfare of the witnesses, as if to say: We hold no grudges against you, as you judged a true judgment.

45. Sanhedrin (46b), the Gemara says:

"Rabbi Yochanan said in the name of Rabbi Shimon Ben Yochai: Where is there an allusion to burial in the Torah? The verse says, 'But you must rather bury him' – here is the allusion to burial in the Torah."

46. Sanhedrin 47b:4'ב:ד'ל

The Gemara notes that the language of the mishna is also precise, as it teaches: Once the flesh of the deceased had decomposed, they would gather his **bones** and bury them in their proper place in his ancestral...**burial** plot, indicating that with the decomposition of his flesh, the executed transgressor achieves atonement, so that he may be buried alongside his righteous relatives.

<u>47. Rabbeinu Bahya, Bamidbar 12:15:1יי, במדבר יייב:טייו:אי</u>

Joseph who had taken a great deal of trouble to bring his father's **bones** to **burial** in the Holy Land, was rewarded in Moses securing his casket and the people taking it with them to the Holy Land during

48. Mishnah Sanhedrin, Chapter 6:6 '1:'1

נָתְעַכֵּל הַבָּשָּׂר, מְלַקְּטִין אֶת הָעֲצָמוֹת וְקוֹבְרִין אוֹתָן בִּמְקוֹמֶן. וְהַקְּרוֹבִים בָּאִים וְשׁוֹאֲלִין בִּשְׁלוֹם הַדַּיָּנִים וּבִשְׁלוֹם הָעֵדִים, כְּלוֹמֵר אָבָל אוֹנְנִין, שָׁאֵין אָנִינוּת אֶלָּא בַלֵּב ,שָאֵין בְּלִבֵּנוּ עֲלֵיכֶם כְּלוּם, שָׁדִין אֱמֶת דַּנְּתֶם. וְלֹא הָיוּ מִתְאַבְּלִין:

When the flesh was completely decomposed, the bones were gathered and buried in their proper place.

The relatives then came and greeted the judges and witnesses, as if to say, we have no [ill feelings] against you, for you gave a true judgment.

And they observed no mourning rites but grieved [for him], for grief is in the heart alone.

49. Sefaria, Dr. Joshua Kulp (Put link in footnote) Mishnah six discusses the process which occurs a year or so after the initial burial of the criminal. At this time formal reconciliation is made between the family of the criminal and the court, thereby restoring proper order to society.

When the flesh was decomposed the bones were allowed to be returned to their ancestral burial place. This is the first step of reconciliation: allowing the criminal's bones to rejoin the bones of his family. The mishnah then prescribes a procedure in which the relatives of the criminal were to greet the judges and witnesses, thereby tacitly admitting that the verdict had been correct. This second process of reconciliation and admission to the authority of the court allows society to return to some sense of normalcy, after the severe disruption of an execution. Finally, although the family may not observe proper mourning rites, which would involve elaborate eulogies and public rituals, inappropriate for a criminal, they were allowed to observe the private ritual of grief. While the mishnah cannot allow the public ritual, it is sensitive to the private needs of the mourning family. This too is a form of reconciliation, as if the court is saying to the family that although your relative was a criminal, the moral stain is not borne by his entire surviving family. They are to return to regular members of society.

50. Shulchan Arukh, Yoreh De'ah, Siman 403

One must not take apart the [collected] bones nor sever the sinews.²² Sem(H). XII,

A collection of bones [for final burial] is made only after the flesh has become decomposed; ²³ Sem(H). XII, [for] once the flesh is decomposed, the shape of the corpse is no longer discernible through the bones. Therefore, one may collect by himself his father's and mother's bones. Yet, it is [more] proper that one should not collect them by himself.

51.the Zohar 3:169a

וכל אינון חרשין וקוסמין ידעין אתרין אלין בחרשייהו וגחנין לארעא ושמעין קלא דא דמתחברן <u>ישעיה כט</u> אוב מארץ ועל דא רדיף שלמה) אינון רוחא ונפשא והבל דגרמי ואודעין מלה ודא איהו , למנדע מה דאתעביד מההוא קלא ולא ידע, זכאה חולקך רבי דאתבריר לךמלה דקשוט,

52. B'nei Yissaschar

ויש לילה שהנפשות יוצאות מן הקברות כגון בליל הושענא רבא יוצאות ומתפללות וכבר הלכו שנים והחביאו עצמן בבית הקברות ושמעו שאחת קוראה לחבירתה נצא ונתפלל יחדיו יצאו כל הנפשות והתפללו ובקשו רחמים כדי שלא יגזור מיתה על החיים גם אותם שימותו שישובו מדרכם הרעה ובחולי קל ימותו ועל כל ענין של חיים ושל מתים ועל עצמן למהר לסור דין מעליהם ומעל אחרים והגידו לקהלם. שנה אחרת בליל הושענא רבא הלכו שנים אחרים ויצאו מן הקברות רק בתולה אחת שמתה קודם שבת אמרו תצאי אמרה איני יכולה מפני כי אבי היה עשיר וירד מנכסיו וקברה בלא בגד ושמעו שמקצת הנשמות אמרו לא נקבץ יחדיו כי כבר שנים גילו עלינו לרבים אלא כל אחד ואחד יתפלל בקברו שלא ישמעו החיים ויגידו לעם וכעסו על האב ולקחו בגדים והלבישו לאותה בתולה ואם התכריכים בלו אין זה מונע הנשמה שהרי הגוף כלה והנשמה בתוך העצמות של מת חונה אף על פי שיוצא מן הגוף המת שהרי מעלה בזכורו מביא הרוח ע"י עפר שבולע מן המת. אחד לא ראה בליל הושענא רבה צל ראשו והתענה הוא ואוהביו הרבה צומות ונתן צדקה הרבה וחי כמה שנים אחר כן כדכתיב

*Translation by Rabbi Elliot Ginsburg

Kiss me, make me drunk with Your [lit. his] kisses...You are wholly fragrant, your name [your very presence] the heady scent of essential oil, oil as it is poured forth" [Song of Songs 1:1-2, my translation] One can interpret this as an allusion to the pure lights of Hanukkah. For the miracle of Hanukkah occured after prophecy [nevu'ah'] had ceased flowing. And yet, a miracle occurred with oil. Consider: whenever one spills essential oil (i.e., perfume) or pours it from vessel to vessel, a residue [roshem] always remains...As our Sages say (Sha'arei Gan Eden, Oraḥ Tsaddiqim, Gate 3, Path 2), The Shekhinah doesn't depart until She leaves behind a trace [roshem]. Now [even before the first Hanukkah] the time of occlusion had already come, and the intimate "mouth-to-mouth" speech between Shekhinah and the prophets had ceased. But lest Israel think "all hope is lost" [she-avdah tiqvateinu, ff. PRE 32, et al.]— even as prophecy departed the miracle of the oil occured, leaving behind an enduring trace [roshem], one that does not fade. They said in the name of Reb Pinḥas of Koretz: Through the trace of the soulbreath [neshamah] that remains in the body [after death], the mystery of the

so-called 'havla de-garmei' [breath of the bones] —through the inspiration of this trace [reshimu], the dead will be brought back to life.

And so the Blessed One revealed his wonders through the miracle of this [essential] oil that leaves behind a trace....For we still have access to the *reshimu*, which is *ruaḥ ha-qodesh*, the Holy Spirit . Its light emanates from the light of Torah, where it is concealed, *ha-or ki tov* — "the light that is good" [*or ha-ganuz*, the light of expanded consciousness]. With this light one can see from one end of the world to the other, as we explained above. And thus it will continue until the time of the Mashiaḥ [lit., the one fully annointed in oil!]. Thanks to the *reshimu*, the dead will come to life and prophecy will return with renewed vigor [*be-yeter se'et*], as it is written (Joel 2:28 "I will pour My spirit on all flesh; Your sons and daughters shall prophesy— your old men shall dream dreams and your young shall see visions:

וצדקה תציל ממות (משלי יב):