Torah and Science The Torah Academy

Fundamentals for Understanding the Interface Between Torah and Science

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Introduction

The goal of higher education has always been to satisfy and wed two of man's most profound inner-yearnings: his desire to know reality and his need for self-expression. A true synthesis of these two aspirations can only be achieved after each has been adequately addressed independently. The first of these two is the foundation of all scientific endeavor, while the second forms the basis for man's exploration of art and the humanities. The merging of the two, for the purpose of allowing the self to positively impact objective reality, can be viewed as the incentive behind the pursuit of technology, the professions, and what are known as the human or social sciences.

The integration of these fundamental spheres of human interest—the arts and the sciences—has always been an implicit aspect of the spiritual program embodied in the Torah. The Torah does not consider them as conflicting with its primary purpose—to satisfy yet another, infinitely more sublime yearning, the desire to "know G-d" and commit oneself to His will. On the contrary, the Torah teaches us that one can only approach Divine reality in the context of addressing the derivative realities of the self and the universe. The contemplation of Divinity is most complete when it avails itself of both a spiritual parable from the workings of the soul and a physical parable from the workers of nature.

The intimate connection between the pursuit of Torah and a joint interest in the arts and sciences can be inferred from the *gematria* (numerical value) of the word Torah (תורה = 611), which is the same as that of the words for art (אמנות) and science (אמנות = 114) combined.

In order to properly appreciate how the Divine wisdom of the Torah addresses and inspires the pursuit of the arts and the sciences, it is best to present the model (*partzuf*) that relates the *sefirot*, the basic forces that define the internal structure of reality, with each distinct sphere of human interest.

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Crown: Faith, Torah, and Art

The first and most exalted of the *sefirot* is referred to as crown. A physical crown sits atop the head, adorning its bearer with an all-encompassing halo that reflects power and authority that derive from a higher source. Similarly, the transcendent *sefirah* of crown encompasses consciousness, unable to be incorporated within it, thus signifying the totality of our super-conscious experience. According to Kabbalah, the crown is comprised of three component realms or in our present context, three spheres of human interest, which are sustained together by a common source of super-conscious inspiration.

The highest realm of the crown (referred to in Kabbalah as "the unknowable head" (*reisha d'lo ityada*) corresponds to the transcendent sphere of faith. This is a realm that can only be explored consciously through the spiritual disciplines of meditation and prayer. Since "no thought can grasp Him,"² the mind must ultimately approach faith through a meditative process referred to as "touching and not touching." Guided by the mystical insights of Kabbalah, the "study of faith" (paradoxical as it may sound) allows the soul to experience its super-rational source in the Divine essence.

The intermediate realm of the crown, known as "the head of nothingness" (*reisha d'ayin*) super-consciously connects one with Divine "nothingness," the origin of created reality, or "something-ness." In "nothingness" inheres the ultimate experience of Divinely-inspired pleasure.³ This realm can be accessed through the study of the Torah in its entirety, whose precepts served as the blueprint for creation ("G-d looked into the Torah and created the world"⁴,). The soul's ultimate delight comes from the study of the Torah for its own sake.⁵ This arouses the soul's potential to create anew, as first manifest in the Torah-innovations given to one who studies the Torah for its own sake.

In particular, this level corresponds to the study of the Divinely-revealed "body" of the Torah—its 613 commandments (*mitzvot*, singular: *mitzvah*) and their myriad details and applications—which ultimately infuses the cognitive representations of reality produced by the mind with the spirit of Divine "nothingness," the abstract spiritual essence of creation.

The final realm of the crown, known as "the infinite head" (*reisha d'arich*), which contains "the concealed brain" (*mocha stima'ah*), represents the primal force of will that continuously propels the self forward into conscious experience. One can never fully account for the motives behind the ongoing extension of selfhood into outer reality. This is so due to the fact that "the concealed brain" is situated in the realm of the crown

^{2.} Introduction to Tikunei Zohar (17a)

^{3.} See Tanya, Igeret HaKodesh 11.

^{4.} Zohar 1:134a, 2:161a.

^{5.} King David exclaims in Psalms 119:92, "Were it not for my delights in Your Torah, I would be lost in my suffering."

beyond the scope of cognitive awareness. Nonetheless, these motives do manifest themselves indirectly in art.

Serving one's desire to leave a personal imprint upon the world, the artistic endeavor taps the deep strivings of the inner self housed in the realm of the crown. In Divine service, the physical performance of a *mitzvah* summons forth these same instincts. Through *mitzvot*, man actualizes God's own will to imprint Himself upon reality, while simultaneously mobilizing his own creative energy.

The aesthetic sense reflected in each individual's unique style of expression lends an intrinsic beauty and grace to all the conscious endeavors of the soul. For example, an eloquent mathematical demonstration is in itself, one of the highest forms of artistic expression. So too, the unique form of dialectic reasoning that the sages employ in their exegeses of the Torah is an artistic extension of the super-conscious reasoning (or "taste") underlying the primal will. Ultimately, art is one's own individual "prophecy" to the world. On the one hand, it necessitates the complete nullification of self which is the basis of all Divine inspiration; on the other, it requires one's unique selfhood to concretely express that inspiration. The genius of Betzalel, the archetypal Jewish artisan, lay in his ability to construct the Tabernacle in accord with the explicit and detailed instructions of God while at the same time demonstrating a highly individual mastery of the creative energy made available in the universe (as indicated by the Midrash ascribing to him the ability to permute the letters by which the heavens and earth were created).

The relationship between the super-conscious realms of faith—*emunah* (אמנה) and art—*omanut* (אמנה), inferred from their common root (אמנה), implies the acknowledgment of faith as the ultimate source of artistic inspiration. The word *emet* (אמנה, "truth"), also a derivative of the root (סיר, ממנ), corresponds to the intermediate realm of the crown associated with Torah study in general, reflecting its essential role in making transcendent faith accessible to the intellect whose roots lie in the realm of super-rational will.

The Three Heads of Keter

the u	unknowable head	faith	אמונה
the l	nead of nothingness	Torah (truth)	אמת
the l	nead of infinity	art	אמנות

Following the *sefirah* of *keter*, an additional ten *sefirot*—all identified with specific realms of *conscious* (as opposed to super-conscious) experience—proceed to chart the

^{6.} Grammatically, אמת is the result of the nun falling from אמנת.

^{7. &}quot;There is no truth but Torah" (Y. Rosh HaShanah 3:8).

course of man's evolving awareness of outer reality. Each *sefirah* corresponds to a specific mode of inquiry into the world we occupy. Unlike the modalities associated with *keter*, these ten methods of exploring reality are predicated upon an objective analysis of the underlying laws operating in creation. Although there ostensibly is no room for utilizing one's subjective unconscious experience in cultivating scientific insight or fact, we will see that when proceeding from level to level of objective awareness, more room becomes available for expressing one's personal "artistic" style.

Some of the disciplines we will now describe deal in the construction of a purely theoretical knowledge-base; others, in a more interventionist spirit, are concerned with developing practical tools for impacting their respective fields of inquiry. Still others seek to combine both these approaches. Beyond sharing an empirical stance to fact-gathering, the common bond uniting them all is their mutual adherence to rational objective criteria as a means of establishing the veracity of their conclusions, thus qualifying them all in the broadest sense as fields of science (*mada*, y = y).

We will now proceed to describe these *sefirot* and their corresponding spheres of interest and study.

Wisdom: Mathematics

The first *sefirah* to emerge from the super-conscious realm of the soul and enter the soul's consciousness is wisdom. As an intellectual faculty, wisdom is the mind's direct insight to reveal the possible sphere of innovations and inventions that are the undercurrent of one's present knowledge base. Wisdom thus provides the individual with the necessary prelude to further cognitive elaboration.

Wisdom includes the ability to intuitively grasp the principal abstract processes and relationships underlying physical reality; as such, it is best represented by the discipline of mathematics, the most fundamental and innovative field of intellectual inquiry.

In contrast to the yet-undefined state that characterizes the super-conscious realm, the conscious realm introduced by wisdom is founded upon well-defined (though abstract) "form" and "structure." Such is the nature of mathematics (השבון).

The field of mathematics, which employs the purest and most abstract processes of thought (מחשבה), provides the basis for all ensuing constructions of consciousness. This is alluded to in the verse "Come to [the city of] Cheshbon [same word as "mathematics"], it shall be built and established...."⁸

Just as the *Zohar* interprets *chochmah*, the Hebrew word for wisdom (הכמה) to read כת (מחשבה, "the power of abstract being,"⁹ so does it interpret the word for "thought" (מחשבה) to read (מחשבה, "think in abstraction"—thus identifying the essence of mathematical thinking with *chochmah*.

^{8.} Numbers 21:27.

^{9.} מה = אדם. The first man, Adam, representing this level of abstract consciousness.

Understanding: The Natural Sciences

Binah (בינה, "understanding") is the power of analytical reason. Through the power of *binah*, the intuitive insight of *chochmah* is conceptually elaborated and then subjected to a rigorous process of logical analysis in context of real, observable phenomena.

This function of intellect expresses itself best in the natural sciences of physics, chemistry, and biology. They represent the tangible arenas wherein the abstractions of mathematical theory can ultimately be applied, their relevance to reality thereby confirmed. (*Chochmah* and *binah* are referred to in the *Zohar* as "inseparable companions"¹⁰—"father" and "mother"—as first personified by Adam and Eve.).

The study of nature (\mathfrak{vac}) is associated in Kabbalah with Eve, the first woman and "mother of all life"¹¹ (from which derives the idiom "mother nature"). Our sages teach us that an "additional measure of understanding (*binah*) was given to woman [Eve], more than to man," supporting the correspondence between Eve and the faculty of *binah*.

The second law of thermodynamics, the law of entropy, expressing nature's predisposition to chaos and disorder, reflects Eve's vulnerability to the destructive forces inherent in nature (as promoted by the primordial serpent of Eden). This, in Kabbalah, is referred to as the tendency of *binah* toward "severe judgments" (דינים). ¹²¹³

Though nature itself "stands forever,"¹⁴ man-made theories to understand its laws change from generation to generation. Theories overthrow theories and theories consume theories. Yet, each theory possesses a mathematical model, which, as an abstraction, is unchanging. So may we perceive the union of "father" and "mother," Adam and Eve, mathematics and the natural sciences.

Knowledge: Psychology

Da'at ($\pi \nu \pi$, "knowledge," or "consciousness") is the ability to consciously "connect," by applying one's power of concentration, to those truths generated by the antecedent powers of the intellect. Through one's power of da'at, man continuously enhances his relation with outer reality, and cultivates a self-awareness that invites constructive and meaningful identification with the elements of his experience. Da'at particularly

^{10.} See Zohar 2:185a.

^{11.} Genesis 3:20.

^{12.} Nidah 45b, based on the verse (Genesis 2:22) referring to the creation of Eve, ויבן ה' אלקים את הצלע אשר, "And G-d built the side [alternatively translated as 'the rib'] which He had taken from Adam into a woman." The word for "built," בינה, is cognate to בינה, "understanding."

^{13.} As the Zohar states with regard to binah, מינה דינין מתערין, "from her are judgments aroused."

^{14.} Ecclesiastes 1:4: "A Generation goes and a generation comes, but the earth stands forever."

expresses itself through the fastening of consciousness upon one's chosen soul-mate ("And Adam knew his wife, Eve"¹⁵) who, according to Chassidic thought, reflects the hitherto unconscious side of one's own self.¹⁶

Embracing both the speculative and the empirical modes of consciousness, *da'at* provides the natural venue for exploring the human condition through the field of psychology. Knowledge pertaining to the nature of one's soul (*cew*) constitutes by itself a spiritual rectification, as intimated by the verse "...without *da'at*, the soul is not good."¹⁷ Though self-knowledge, or self-consciousness often entails pain ("Exceeding knowledge brings exceeding pain"¹⁸), this pain in fact heralds the inner-breakthrough that is necessary in order to proceed further toward Divinely-inspired emotions and deeds.

In Kabbalah da'at is the first sefirah to break, which places it as the seat of the individual's own internal breakdown. Therefore it also becomes first sefirah that needs to be rectified. Each one of the kings of tohu is a particular type of psychological pathology. Likewise, each of these pathologies has a particular psychological school that builds its theory based on this particular problem. (this will be the topic of the next text in psychology).

chochmah	Adam
binah	Eve
da'at	union of Adam and Eve

Each of the seven holidays also corresponds with a particular pathology and serves as its rectification.

Loving-kindness: Social Sciences

Chesed ("Norm, "loving-kindness") is the desire to act with "expansiveness." The first of the soul's emotive capacities, *chesed* represents the ability of the self to experience an unconditional and universal affinity with others—to lovingly "embrace" all of humanity. By virtue of its desire to relate with understanding and love to alternate human realities, the power of *chesed* is best put to work in the social sciences, such as anthropology, sociology, and social work.

^{15.} Genesis 4:1. The literal meaning of this verse is that Adam knew Eve through marital relations.

^{16.} As above, in footnote 9, מה = 45, the value of the full-spelling of G-d's Name: יוד הא ואו אד . The revealed, conscious aspect of this Name is its four original letters, which equal 26. The concealed, unconscious aspect of the Name is the six letters which complete the full spelling of the Name, those hidden to the speaker or reader of the Name, which equal $19 = \pi \ln$, Eve. Eve thus represents Adam's initially unconscious sense of self (-fulfillment) inherent in his consciousness of G-d.

^{17.} Proverbs 19:2.

^{18.} Ecclesiastes 1:18.

The term for "social sciences" (מרעי החברה) reflects the importance of exploring social phenomena in a spirit of "friendship" (חברות) and "togetherness" (חבור). Success in the pursuit of these disciplines depends upon what *Chassidut* refers to as an "inner sense" (חוש) of loving one's fellow Jew.

Might: Law

Gevurah (גבורה), "might") is the power to restrain and subdue. A counter-balance to the unreserved connectivity of *chesed*, the affective (posture) of *gevurah* dictates the establishment of strict boundaries governing the comportment of relations with the outside world. Sensitive to the integral limits which attach to all elements within creation, *gevurah* allows one to circumscribe the parameters of acceptable social behavior and determine the consequences of their violation, thereby providing a basis for establishing the statutes of law.¹⁹

The idiom that the Torah uses to describe a just legal system is "righteous judgment" (משפט צרק). After enjoining the people to appoint qualified judges who might "judge the people in righteous judgment," the Torah continues: "Righteousness, righteousness shall you pursue."²⁰ One of the implications of the term "righteousness" being mentioned twice is that the judge, in accordance with the ideal of promoting justice (משפט), which he represents, strive to realize the element of "righteousness" of judgment in both positions presented before him. In this way, the natural severity of judgment becomes "sweetened" with mercy, the trait identified with the following *sefirah*, *tiferet*.

Beauty: Medicine

Tiferet (הפארת, "beauty") is the attribute of inner-balance and harmony. The basis for modulating a balanced affective response to outer reality, combining the expansiveness of *chesed* with the restraint of *gevurah*, the mercifulness of *tiferet* enables one to determine when compassionate overtures are in order (thereby expressing a concern for the other that extends even deeper than that associated with *chesed*) as well as recognize when they might be inappropriate or even counterproductive.

In Kabbalah, *tiferet* is referred to as "the body of man" (תפארת גופא).²¹ The root of *tiferet*, הפאר, permutes into the root רפא, "to heal." As a mediating force, balancing variant and often competing energies, *tiferet* works to help the body achieve an internal equilibrium, a goal which is central to the pursuit of all healing sciences subsumed within the profession of medicine.

The Torah states that ורפא ירפא, about which the sages say: From these words we know that the doctor has been given permission [from the Almighty] to heal." This

^{19.} The Zohar relates that the Heavenly Court resides in the sefirah of gevurah.

^{20.} Exodus 16:18-20.

^{21.} Introduction to Tikunei Zohar.

teaching first of all tells us that though one might think that whatever happens from Heaven should not be meddled with, the Torah states the opposite.

Beauty in Hebrew refers to the multitude of colors together. The Arizal explains that the word "פאר" also means limbs, and thus also to the limbs of the body. Thus, it is clear that a healthy body makes the body beautiful.

רפואה also stems from the word meaning הרפיה. This implies the ability to decrease tension and cause relaxation.

In particular תפארת corresponds to the muscular system. When the muscle system is properly aligned, everything in the body flows in a good way. The heart itself is part of the muscular system and is considered the source from which all the limbs of the body receive their sustenance.

The entire Jewish people are considered a single body, with a collective consciousness. The love of one's fellow Jew is loving-kindness, while the unity between Jews corresponds to the *sefirah* of beauty. When one is lacking in love for one's fellow Jew then one also lacks a connection and unity with other Jews, which produces an ailment in one of his own limbs.

Vicotry: Education

Netzach (נצח), "victory" or "eternity") is the ability to take initiative in fulfilling one's aspirations and perpetuating one's life. *Netzach* is the primary executive force of the soul. When one is mobilized in the service of holiness, he realizes that confidence and initiative are qualities endowed him by G-d, the consequence of genuinely trusting that G-d is concerned for his welfare.

In its attempt to focus the energy of the self on an active engagement with outer reality, the power of *netzach* is responsible for the confident determination and resolve with which the individual takes on the challenges of life. In particular, *netzach*—which can mean "eternity"—symbolizes the victory over death, the power to perpetuate life.

The need to transmit time-honored values and knowledge to successive generations of youth is the primary concern of education, which aims to promote confidence among the young in their ability to intellectually and spiritually grapple with the complexities of life. Through education, the parent wishes to bequeath to his offspring the sense of assurance necessary for succeeding in life's journey and overcoming its obstacles.

The Hebrew word for education (תווד, *chinuch*) is related to the Hebrew name for Enoch (תווד, Chanoch). In the Torah's documentation of Adam's genealogy two different people were called by this name. The first Enoch, son of Cain and third generation from Adam, was the recipient of a materialistic education that culminated in his introducing the city into history.²² The lineage of Cain came to an end with the Flood, which in many ways was caused by the decadence and excess associated with metropolitan life. The

^{22.} Genesis: 4:17.

second Enoch, the seventh generation from Adam through his third son Seth, is recorded in Kabbalah as being the spiritual mentor of Moses, giver of the Torah. This Enoch's son, Methuselah, merited to live the longest life recorded in the Torah. This can be attributed to his having received a proper G-d-fearing education from his father, who understood education to be an instrument for perpetuating life as opposed to cutting it short.

Thanksgiving: Economics

Hod (*THT*, "thanksgiving" or "splendor") is the ability to acknowledge truth, that is to be honest; to confess or surrender. In the Torah the most important stipulation to conducting business is that it be conducted in good faith, that is, that the person be honest. Honesty first and foremost means keeping your word in business dealings and not manipulating others with your speech.

The sefirot of victory and acknowledgment are called "partners." Partnership requires two individuals, one who plays the more senior role (corresponding to the relatively masculine sefirah of victory) and the other playing the junior role (corresponding to the relatively feminine sefirah of acknowledgment). Business is particularly related to education as one's education (and one's confidence, both in himself and in the Almighty's Providence) can best be known through the way the he conducts himself in his business. Without confidence, a person finds it necessary to cheat and lie in business.

These two sefirot are also symbolized by the two cups of a scale, indicating that both require a sense of balance. Education requires balance between inspiration and integration (as explained elsewhere), whereas economics is based on a balance between risk and profit. Though the goal is to always gain profit the ability to take risks is the ability to survive losses. The interplay between profits and losses represents the balance of the relative victory (profit) and acknowledgment (loss) in the sefirah of acknowledgment. This interplay is called "the wheel that returns," indicating that business should be conducted with the knowledge that sometimes you are above and sometimes you are below. It is also therefore one of the strongest motivators for charity, as explain in the Talmud. Because of this interplay, economics is considered one of the best examples of chaotic phenomena in Chaos theory. It is also related to entropy, as profit is dependent on staying ahead of entropy.

By allowing oneself to surrender control, he becomes increasingly receptive to the multitude of "vibrations" (*hod* derives from the root ¬¬, meaning "echo") resonating throughout external reality. Becoming more and more sensitive to the needs and rights of others, one develops the ability to echo their concerns and "transact with them in [good] faith."

Hod's inner attribute, *temimut* (תמימות, "sincerity"), is the property of the soul which most reflects the simple faith of its unknowable head, as honest and trustworthy

dealings with others. The ability to promote social contract qualifies *hod* as the proper foundation upon which to base the pursuit of business and economics. These are disciplines which require broad social accommodations as means of guaranteeing the just and equitable distribution of resources within a given community.

Through every act of *hod*, one creates a "vessel" capable of receiving blessing. The Hebrew word for "economics" (כלכלה) intimates an ability to produce multiple "vessels" (כלים) for receiving the blessings of wealth.²³

The potential in *hod* for promoting "self-surrender" enables one to keep his sights set upon life's ultimate objectives, thus allowing him to proceed confidently and with straight bearing toward his desired destination regardless of the obstacles strewn in his way. For this reason, *hod* is the companion-*sefirah* of *netzach*, the two of them depicted in Kabbalah as the "legs" of the soul which in unified step lead one on the unwavering path toward achieving his life-aspirations. The word for "market" (שוק), the arena of economics, is the same as that for "leg" (שוק). According to Kabbalah, the left leg, *hod*, is the most vulnerable part of the body. In Jacob's battle with Esau's archangel, it was this part of his body which was wounded. When not properly guarded, it may degenerate and transform into a destructive force. This is what happens when business becomes an obsessive, egocentric pursuit of wealth and power.

Aside from working in conjunction with *netzach*, it is often necessary for the *sefirah* of *hod*—by its inherently passive nature—to suppress the aggressive tendencies of *netzach*. Implicit in the submissive posture of *hod* is a redemptive capacity that allows one to acknowledge and thereby share in the power of a larger and more supreme entity than the isolated, individual self. The transcendent power of *hod* to inspire the self toward an attachment with more sublime reality is what endows its possessor with the "splendorous aura" which is also one of the meanings of *hod*.

Foundation: Communication Science

Yesod (יסוד), "foundation") is the power to actualize one's latent creative potential; the drive towards self-fulfillment. Yesod is portrayed in Kabbalah as the instrument of man's procreative energies. Ultimately it seeks intimate connection (קשר) with others as a means of verifying, or fulfilling the self.

As explained in the introduction, we engage in the arts and science for the purpose of either expressing ourselves or influencing our surroundings. More than any of the other disciplines, communication is linked to both reasons. Communication (תקשורת) of one's seminal thoughts and feelings to another represents the beginning of selfactualization. While, out of healthy communication comes the power to positively influence others and thereby shape public opinion in accordance with those truths which one most desires to see adopted in the world.

^{23. &}quot;The blessing of G-d brings wealth" (Proverbs 10:22).

Just as *da'at* serves to connect and bridge one's intellect to his emotion, *yesod* seeks to channel emotion into thought, speech, and action. The property of truth which inheres within *yesod* signifies the need to outwardly realize, and thereby verify the value of, one's innermost yearnings and desires. The more guarded one is in speaking only that which is necessary, the more vigilante one is of one's speech, the more potent speech becomes. This is like saying that in the spiritual sense we should sanctify our speech, that is, refrain from improper speech and speech that is not mindful. To guard one's speech a person has to be very mindful, or conscious of his speech. In Kabbalah this is called "consciousness is concealed in the mouth." The more consciousness is invested in one's speech the more weight his words will carry.

Furthermore, as we found *tiferet* to mediate between the two affective dispositions of *chesed* and *gevurah*, so too does *yesod* reconcile the often conflicting ego-postures of *netzach* and *hod*, by enabling a responsible yet forceful dialogue between the individual self and broader society.

By impelling one to express himself, be it through word or action, in ways which are deemed constructive to outer reality and which reflect the inner truth of one's own soul, the power of *yesod* creates the foundation for meaningful occupation in communication and the media.

The experiential power of foundation is truth. The worst plague of all communication is lying and deceit. From the sefirah of victory and on, the disciplines have a tendency to deceitfulness which must be combated by strengthening one's commitment to the truth. This tendency grows stronger and stronger until it reaches its maximum in politics. The commitment to the truth must begin in a person's education. If the education has been strong enough to instill a commitment to truth, this can influence one's business dealings, one's speech, and finally one's politics.

One's commitment to speak truthfully can be divided into a number of stages, which correspond to the sefirot from victory to kingdom. Victory and acknowledgment correspond to the kidneys which are called "batuchot," which literally mean "promises." The beginning of rectified speech is the promise of a good future that education gives the individual. This is a long term promise. The shorter term promise is that of the truthful and honest businessman. Though action, expressive of kingdom is the final form of fulfillment of one's promises, the words spoken in communicating are an initial form of fulfillment.

Chassidut explains that many times it is only through speech that certain aspects of reality can be distinguished from one another.

Kingdom: Political Science

Malchut (מלכות, "kingdom") is the ability to both exercise and accept sovereign authority. From King David, the archetype of *malchut* in the Torah, we learn that a true king must possess a deep inner humility ("I shall be lowly in my own eyes"²⁴) which, itself, paradoxically allows him to assume outwardly the attitude of superiority (התנשאות, literally, "upliftedness" over one's people) necessary for one destined to leadership. Humility enables the king to consummately accept upon himself the yoke of Heaven so that he may, with total self-sacrifice, accept the Divine mandate to rule with justice and benevolence over his people.

Thus, the final resource available to the self in its attempt to penetrate and influence outer reality is the radical capacity for self-sacrifice implicit in the *sefirah* of *malchut*. Only through circumventing one's own self-interest can the integral will of the other be served. An appreciation of this principle is the prerequisite for entering into the arenas of political science and government, the "state-sciences" (מרעי מרעה).

The Hebrew word for "state" or "government" (מרינה) is derived from the word for "law" or "justice" (דין). Kabbalah teaches that law and order is the beginning of all rectified *malchut*.²⁵ But subsequently, *malchut* must express "the trustworthy benevolence of King David"²⁶ if it is to achieve true perfection. It is the king's outward posture of superiority that gives him the power to implement law and order; yet it is his inner humility which allows him to rule with benevolence at the same time.

Parallels in History

The succession of disciplines delineated in the above model beautifully reflects a parallel progression in the history of the Jewish people.

The power of faith in the unity of G-d is a characteristic inherited directly from the patriarchs and matriarchs of the Jewish people. The Torah received and taught by Abraham, Isaac, and Jacob is the basis of present-day teachings in Kabbalah and *Chassidut*, the "study of faith." The Exodus from Egypt and the Jews' birth as a nation was in the merit of this ancestral faith, while the splitting of the Red Sea offered a glimpse into the depths of its mystery. The ensuing war with Amalek, the first nation to attack the newly born nation of Israel, represents the struggle with and victory over uncertainty²⁷ in regard to this faith.

The second great stage of Jewish history, the giving of the Torah at Sinai amidst Divine revelation, corresponds to the Torah appearing after the consummation of faith in our model.

Upon Moses' final descent from Mount Sinai, he commanded the Jewish people to begin constructing the Tabernacle as a resting place for the Divine Presence on earth.

^{24.} II Samuel 6:22.

^{25.} In accordance with the principle in Kabbalah, "the initial construction of malchut is from gevurah."

^{26.} Isaiah 55:3.

^{27.} Alluded to by the fact that Amalek (עמלק) is numerically equivalent to ספק, "doubt."

The chief artisan of the Tabernacle and its attendant vessels and furnishings was Betzalel, the archetypal Jewish artist mentioned above.

The subsequent forty-year sojourn in the desert is chronicled in the book of Numbers (mathematics), so called because of its detailed accounting of the twelve tribes of Israel in relation to their encampments and preparedness for military service.

Mastering the natural sciences corresponds to the first seven-year period of Israel's conquering the land of Canaan (i.e., nature) during which it was liberated from its prior inhabitants. In Kabbalistic terms, this stage represents the conversion of natural "chaos" (עולם התקון) into a force of harmony and order (עולם התקון).

After the seven years of conquest came seven years of dividing and apportioning the land amongst the various tribes. Every individual and family within each tribe received a predestined and eternal inheritance in the land of Israel. The matching of a man to his land-inheritance is similar to matching a groom with his bride. Both employ the property of *da'at*, in both its conscious and unconscious aspects, in order to help one realize his destined purpose on this earth.

Most of the Torah-commandments tied to the land of Israel became binding only subsequent to the fourteen years of conquest and division described above. With the actual settling of the land, a continuous seven-year cycle governing the use of the land and its produce (with a fifty-year interval for observing the Jubilee) commenced. The six-year component of this cycle corresponds to the six "settling"-properties of the heart, which themselves correspond to the six interrelating disciplines (the social sciences, law, medicine, education, economics, and communication) necessary for the proper functioning of society.

The seventh, sabbatical year in the cycle corresponds to the establishment of the Messiah's just and benevolent rule over Israel, while the Jubilee year alludes to the exclusive Kingdom of G-d on earth culminating and epitomizing the Messianic era.