



D. SEED SOVEREIGNTY: JEWISH FRAMEWORK

Bereishit, or Genesis, is the first book of the Torah. Beginning with an account of creation — including the first man and woman — Bereishit chronicles the early history of the human race, particularly the ancestors of the Jewish people: Abraham and Sarah, Isaac and Rebecca, and Jacob, Leah and Rachel. It ends with the story of Joseph and the arrival of the Children of Israel in Egypt. In Chapter 1, G-d creates the universe over the course of six days: light, darkness, day and night on Day One; a separation between water and sky on Day Two; land and vegetation on Day Three; sun, moon and stars on Day Four; living things of the water and the sky on Day Five; and living things of the earth — including human beings — on Day Six.

D1. Bereishit 1:11-13

¹¹And G-d said, “Let the earth sprout vegetation: seed-bearing plants, fruit trees of every kind on earth that bear fruit with the seed in it.” And it was so. ¹²The earth brought forth vegetation: seed-bearing plants of every kind, and trees of every kind bearing fruit with the seed in it. And G-d saw that it was good. ¹³And there was evening and there was morning, a third day.

בראשית א:י"א-י"ג

יֵאָמֵר אֱלֹהִים תִּדְשָׂא הָאָרֶץ דֶּשָׂא עֵשֶׂב
מִזֶּרַע זֶרַע עֵץ פֶּרִי עֹשֶׂה פֶּרִי לְמִינֹו אֲשֶׁר
זָרְעוּ בוֹ עַל הָאָרֶץ וַיְהִי כֵן: יב וַתּוֹצֵא הָאָרֶץ
דֶּשָׂא עֵשֶׂב מִזֶּרַע זֶרַע לְמִינֵהוּ וְעֵץ עֹשֶׂה פֶּרִי
אֲשֶׁר זָרְעוּ בוֹ לְמִינֵהוּ וַיִּרְא אֱלֹהִים כִּי טוֹב:
יג וַיְהִי עֶרֶב וַיְהִי בֹקֶר יוֹם שְׁלִישִׁי:

Vayikra, or Leviticus, is the third book of the Torah. Primarily a compilation of legal and ritual material, Vayikra establishes rules for sacrifices, the priesthood, ritual impurity and purification (including the laws of kashrut), and the so-called Holiness Code, which establishes social and ritual norms for the average Israelite. Chapter 19, which appears toward the middle of the Holiness Code, sets forth basic rules for righteous living and ethical conduct between Israelites, particularly in the context of social relations and daily life.

D2. Vayikra 19:19

¹⁹You shall observe My laws. You shall not let your cattle mate with a different kind; you shall not sow your field with two kinds of seed; you shall not put on cloth from a mixture of two kinds of material.

ויקרא י"ט:י"ט

יֵשׁ אֶת חֻקֵי תִשְׁמְרוּ בְהַמְתִּיךָ לֹא תִרְבִּיעַ
כְּלָאִים שָׂדֶךְ לֹא תִזְרַע כְּלָאִים וּבְגָד כְּלָאִים
שַׁעֲטָנָו לֹא יַעֲלֶה עֲלֶיךָ:



Rabbi Moshe ben Nachman (1194-1270), better known as Ramban or Nachmanides, was a leading medieval Jewish scholar, rabbi, philosopher, physician and kabbalist. Ramban lived in Spain and died in Israel. Ramban wrote commentary on the Talmud and on the five books of the Torah.

D3. Ramban on Leviticus 19:19

Now the reason for [the prohibitions against] *kilayim* ["mixed kinds"] is that G-d has created in the world various species among all living things, both plants and moving creatures, and He gave them a power of reproduction enabling them to exist forever as long as the Blessed One desires the existence of the world. And He further endowed them with a power to bring forth [only] after their kind, and that they should eternally never be changed, as it is said with reference to all of them [in Bereishit 1:11], "after its kind." This driving force in the normal mating of animals is for the sake of preserving the species, even as human beings engage in sexual activity for the sake of having children. Thus one who combines two different species, thereby changes and defies the work of Creation, as if he is thinking that the Holy One, blessed be He, has not completely perfected the world and he desires to help along in the creation of the world by adding to it new kinds of creatures. Moreover, the mating of diverse species of animals does not produce offspring, and even in the case of those that are by nature close to each other [such as the horse and the donkey], from which offspring are born, such as mules, their seed is cut off, for they themselves [the mules] cannot produce offspring. Thus from the point of view of these two matters [i.e., the changing in the order of Creation and the sterility of the product, we see that] the act of combining different species is despicable and futile.

Even when diverse species of vegetation are grafted together, their fruits do not reproduce afterwards, and they too are prohibited because of the two aforementioned reasons [for the prohibition of mixing different species together]. This is the meaning of the prohibition [stated here in the verse], "you shall not sow your field with two kinds of seed," which in the opinion of our Rabbis [in Kiddushin 39a] constitutes a prohibition against grafting [diverse kinds of trees, or trees and vegetables and is not a prohibition against merely sowing together diverse kinds of seed].

רמב"ן על ויקרא י"ט:י"ט

והטעם בכלאים, כי השם ברא המינים בעולם, בכל בעלי הנפשות בצמחים ובבעלי נפש התנועה, ונתן בהם כח התולדה שיתקיימו המינים בהם לעד כל זמן שירצה הוא יתברך בקיום העולם. וצוה בכחם שיוציאו למיניהם ולא ישתנו לעד לעולם, שנאמר בכולם "למינהו" (בראשית א), והוא סיבת המשכב שנרביע בהמות זו עם זו לקיום המין כאשר יבואו האנשים על הנשים לפריה ורבייה. והמרכיב שני מין, משנה ומכחיש במעשה בראשית, כאילו יחשוב שלא השלים הקב"ה בעולמו כל הצורך ויחפון הוא לעזור בבריאתו של עולם להוסיף בו בריות. והמינים בבעלי חיים לא יולידו מין משאינו מינו, וגם הקרובים בטבע שיולדו מהם כגון הפרדים יכרת זרעם כי הם לא יולידו. והנה מצד שני הדברים האלה, פעולת ההרכבה במינים דבר נמאס ובטל:

וגם הצמחים אשר יתרכבו מין בשאינו מינו אין פרים צומח אחרי כן, ויהיו באיסורם שני טעמים הנזכרים, וזה טעם "שדך לא תזרע כלאים" שהוא בהרכבה על דעת רבותינו (קידושין ל"א).



Discussion Questions

1. How do you understand the creation of flora in Bereishit 1:11-13? What is the understanding of plants, trees, fruits, seeds and species reflected in that text? How does this understanding relate to notion of sacredness and divine order?
2. Does Vayikra 19:19 seem like a logical ethical principle? How do the three kinds of *kilayim* prohibitions relate to one another? Can you think of any similar ethical principles in today's world?
3. Do you agree with Ramban's interpretation of Vayikra 19:19 and his understanding of *kilayim*? What do you think about the way he combines the story of creation in Bereishit 1:11-13 with the prohibitions in Vayikra 19:19?
4. How might these three texts inform current debates about the technological, legal and/or ethical implications of biotechnology, genetic engineering (GE) and genetically modified organisms (GMOs)?

These verses from the end of Chapter 1 of Bereishit represent the final acts of Day Six and the culmination of G-d's act of creation: the creation of human beings.

D4. Bereishit 1:26-30

²⁶And G-d said, "Let us make man in our image, after our likeness. They shall rule over the fish of the sea, the birds of the sky, the cattle, the whole earth, and all the creeping things that creep on the earth." ²⁷And G-d created man in His image, in the image of G-d He created him; male and female He created them. ²⁸G-d blessed them and G-d said to them, "Be fertile and increase, fill the earth and master it; and rule the fish of the sea, the birds of the sky, and all the living things that creep on earth." ²⁹G-d said, "See, I give you every seed-bearing plant that is upon all the earth, and every tree that has seed-bearing fruit; they shall be yours for food." ³⁰And to all the animals on land, to all the birds of the sky, and to everything that creeps on earth, in which there is breath of life, [I give] all the green plants for food." And it was so.

בראשית א:כ"ו-ל

כּו וַיֹּאמֶר אֱלֹהִים נַעֲשֶׂה אָדָם בְּצַלְמֵנוּ
כְּדַמוֹתֵנוּ וַיְרַדְנוּ בְדִגְתַּי הַיָּם וּבְעוֹף הַשָּׁמַיִם
וּבַבְּהֵמָה וּבְכָל הָאָרֶץ וּבְכָל הַרְמֵשׁ הַרְמֵשׁ
עַל הָאָרֶץ: כּו וַיִּבְרָא אֱלֹהִים אֶת הָאָדָם
בְּצַלְמוֹ בְּצֶלֶם אֱלֹהִים בָּרָא אֹתוֹ זָכָר וּנְקֵבָה
בָּרָא אֹתָם: כח וַיְבָרֶךְ אֹתָם אֱלֹהִים וַיֹּאמֶר
לָהֶם אֱלֹהִים פְּרוּ וּרְבוּ וּמְלֵאוּ אֶת הָאָרֶץ
וּכְבֹּשׂוּהָ וַיְרַדְנוּ בְדִגְתַּי הַיָּם וּבְעוֹף הַשָּׁמַיִם
וּבְכָל חַיַּי הַרְמֵשֶׁת עַל הָאָרֶץ: כט וַיֹּאמֶר אֱלֹהִים
הִנֵּה נֹתְתִי לָכֶם אֶת כָּל עֵשֶׂב זֶרַע זֶרַע אֲשֶׁר
עַל פְּנֵי כָל הָאָרֶץ וְאֵת כָּל הָעֵץ אֲשֶׁר בּוֹ פְרִי
עֵץ זֶרַע זֶרַע לָכֶם יְהִי לְאֹכְלָהּ: ל וְלִכְלֹל
חַיַּי הָאָרֶץ וְלִכְלֹל עוֹף הַשָּׁמַיִם וְלִכְלֹל רוֹמֵשׁ
עַל הָאָרֶץ אֲשֶׁר בּוֹ נֶפֶשׁ חַיָּה אֵת כָּל יֶרֶק עֵשֶׂב
לְאֹכְלָהּ וַיְהִי כֵן:



Rabbi Shlomo Yitzchaki (1040-1105), better known as Rashi, wrote the first comprehensive commentaries on the Tanakh, the Mishnah and the Talmud. Rashi begins by quoting a particular word or phrase from a text, then offers his own interpretation of its meaning. In this case (as in many midrashim), his interpretation is based on a creative reading of the text's grammatical ambiguity.

<p>D5. Rashi on Bereishit 1:26</p> <p>“They shall rule over the fish of the sea”: The expression contains both the meaning of ruling and the meaning of subservience. If [the human being] merits, he rules over the beasts and the cattle. If [the human being] does not merit, he becomes subservient to them, and the beasts rule over him.</p>	<p style="text-align: right;"><u>רש"י על בראשית א:כ"ו</u></p> <p style="text-align: center;">וירדו בדגת הים: יש בלשון הזה לשון ירדוי ולשון ירידה, זכה רודה בחיות ובבהמות, לא זכה נעשה ירוד לפניהם והחיה מושלת בו</p>
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Rabbi Samson Raphael Hirsch (1808-1888) was a prominent German rabbi whose writings laid the foundations for much of Modern Orthodoxy. His German-language commentary on the Torah combined a deep command of and commitment to Jewish tradition with elements of modern biblical scholarship and a concern for contemporary Jewish life.

<p>D6. Rabbi Samson Raphael Hirsch on Bereishit 1:26</p> <p>This is the position the human being is to have towards all other living creatures on earth. He has not been given the mission to make them all—and indeed not entirely—subservient to him. The earth and its creatures may have other relationships, of which we are ignorant, in which they serve their own purpose. But the human being has been given the position <i>lirdot bam</i> [“to rule over them”], not <i>lirdot otam</i> [“to rule them”]: to exercise his mastery over living creatures and on the earth itself, to bring some of them out of their free independence under his hand for the fulfillment of his human calling.</p> <p>If the human being approaches the world as Adam (in the image and likeness of G-d), and demands its service only in the service of G-d, then the earth gladly renders it and gladly recognizes the human being as its ruler. Its mastery is no enslavement or degradation, but rather a raising and elevation of all earthly material elements into the sphere of free-willed moral G-d-serving purposes. The whole world bows willingly to the pure G-d-serving human.</p> <p>But if the human being misuses his position, if he does not approach the world as Adam (as the representative of God), but in his own power of mastery, then animals too do not willingly bow their neck to the human. [The Midrash teaches:] “If [the human acts] in Our image and likeness [then] ‘he will rule;’ if he [acts] not in Our image and likeness, then ‘he will be taken down.’ If he merits, then he will rule; if he does not merit, then he will be taken down.” Thus our Sages teach.</p>



Discussion Questions

1. The verses in Bereishit 1:26-30 have been interpreted to justify a wide range of relationships with the natural world. How do you understand the role that G-d gives to human beings? Is it one of unregulated dominion? Measured stewardship and responsibility? A balance between the two? Something different altogether?
2. What do you make of Rashi's commentary? Is his interpretation consistent with your understanding of the Bereishit 1:26? How would you define the terms "ruling" and "subservience"? What do you think Rashi means by "merit"?
3. In Rabbi Hirsch's commentary, he draws a distinction between *lirdot bam* ("to rule over them") and *lirdot otam* ("to rule them"). How do you understand the difference between these two concepts? Which one do you think characterizes our relationships with the natural world today?
4. Based on the positions argued in these texts, what position might the Torah advocate for biotechnology? What might Rashi and Rabbi Hirsch have to say about the ethical implications of GMOs?