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"...THEY SHALL SERVE AS SIGNS FOR THE SET TIMES..."

**BIBLICAL AND RABBINIC BACKGROUND,
THEOLOGICAL ASPECTS AND ECOLOGICAL IMPLICATIONS
OF THE
HEBREW CALENDAR**

by

Debra Judith Robbins

Thesis Submitted in Partial Fulfillment
of the Requirements for Ordination

Hebrew Union College - Jewish Institute of Religion

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Referee, Professor David B. Weisberg

Digest

This is a study of the Hebrew calendar. It presents a history of the Hebrew calendar in the Biblical and Rabbinic periods, the theological aspects of the luni-solar calendar, and the connections between the Hebrew Calendar and contemporary ecological issues.

This thesis is divided into five chapters and an introduction which provides the context and objectives of this study.

Chapter I surveys calendar development in the Biblical period. It provides background to the development of the Hebrew calendar by focusing on the calendar as it was determined by citation of the moon and seasonal changes, and the subsequent transition to calendrical calculation.

Chapter II discusses the Hebrew calendar as it developed in the Rabbinic period. It analyzes Mishnaic material and creates portraits of individuals from the Mishnah and the Talmud who were involved in determining the calendar.

Chapter III contains various modes for celebrating the new moon from both historical and contemporary perspectives.

Chapter IV describes the festival observances of Pesach, Shavuot and Sukkot as opportunities within the Hebrew Calendar to develop relationships between God, human beings and the natural world. Historical background and Reform observance lead to suggestions for the renewal of ancient agriculturally oriented rituals.

Chapter V applies the Hebrew Calendar to current environmental concerns. Drawing upon the essence and structure of the Hebrew calendar it concludes that sensitivity to the natural cycles of the world, as expressed in the Hebrew Calendar, can lead to a relationship with the Creator and partnership in the ongoing work of Creation.

Table of Contents

Preface	vi
Introduction.....	1..
 Chapter I	
CALENDAR DEVELOPMENT IN THE BIBLICAL PERIOD	
BACKGROUND TO THE HEBREW CALENDAR IN THE BIBLICAL PERIOD.....	6
Egyptian Calendar	6
Aviv.....	9
Moon and Month.....	11
HEBREW CALENDARS OF THE BIBLICAL PERIOD	15
Introduction	15
Stage I	
The Canaanite Calendar	16
Stage II	20
The Gezer Calendar.....	21
The Calendars of Monarchies.....	28
The Babylonian Calendars.....	31
Stage III	
Calendars of Transition.....	33
 Chapter II	
CALENDAR DEVELOPMENT IN THE RABBINIC PERIOD	
CALENDAR DETERMINATION AS RECORDED IN THE MISHNAH.....	38
The Sanhedrin and the Calendar	38
Mishnah Rosh Hashanah 1:1-3:1	
As a Source for Calendar Determination by the Sanhedrin	41
Analysis of Mishnaic Material.....	45
Witnesses	47
Evidence	51
Proclamation	54
Communication	56
CALENDAR PERSONALITIES IN THE MISHNAH AND THE TALMUD	60
Gamliel I	63
Rabbi Yochanan ben Zakkai.....	66
Gamliel II	68
Rabbi Joshua ben Chananya	73
Chananya	75
Judah Hanasi.....	78
Mar Samuel.....	80
Hillel II.....	85

Chapter III
CELEBRATING THE NEW MOON
Historical and Contemporary Formats for Welcoming the New Month.....89

INTRODUCTION.....89
HISTORICAL CELEBRATIONS OF THE MOON.....91
 Sacrifices91
 Rejoicing93
 Declaration and Blessing.....96
 Women and the Abstention from Work.....99
CONTEMPORARY CELEBRATIONS OF THE MOON104
 Monthly Gatherings.....105
 Observation of the New Moon.....107
 Kiddush levanah.....110

Chapter IV
FESTIVAL OBSERVANCES WITHIN THE HEBREW
CALENDAR
Symbols and Rituals to enhance the relationships between Creator,
Created and Creation from a Reform Perspective114

INTRODUCTION.....114
 Agricultural Cycles.....114
 The Reform Movement.....117
PESACH.....120
 Background120
 Reform Observance.....127
 Suggestion—Bedikat Chametz.....128
SHAVUOT.....129
 Background130
 Reform Observance.....136
 Suggestion—Bikkurim137
SUKKOT.....138
 Background138
 Reform Observance.....148
 Suggestion—Simchat Beit Hashoevah.....148

Chapter V
ECOLOGICAL IMPLICATIONS OF THE HEBREW CALENDAR
Using the essence and structure of the Hebrew Calendar to address
current environmental issues.....151

RELATIONSHIPS BETWEEN CREATOR, CREATION AND CREATED.....151
 Introduction151
 Contemporary Expressions of Experiencing God in Nature.....152
 Job's Experience of God in Nature155
CARETAKING IN THE BIBLE.....158
 Varied Religious Perspectives.....158
 A Biblical Perspective Beyond Genesis.....162

CARETAKING IN THE RABBINIC PERIOD	168
From Aggadah	168
From Halakhah	172
TODAY'S JEWISH CARETAKERS.....	176
Organizations for Religious Environmentalists.....	177
Jewish National Fund.....	177
Neot Kedumim.....	178
The Religious Action Center of Reform Judaism.....	178
The Shalom Center	179
Shomrei Adamah.....	179
The Society for the Protection of Nature in Israel.....	180
Some Conclusions.....	180
Appendix	185
Photograph of the Gezer Calendar	185
Drawing of the Gezer Calendar	186
Comparative Chart of Gezer Months	187
The Path of the Beacons from Jerusalem to Babylonia	188
The Locations for the Sanctification of the New Moon and the Intercalation of the Year	189
The Paths of the Sun, the Moon and the Festivals.....	190
Observation Report Form for Citing the New Moon	191
Shalom Center Proposal for Sukkat Shalom.....	192
Organizations for Religious Environmentalists.....	194
Bibliography.....	195
Primary Sources.....	195
Calendar-General	195
Calendar-Biblical	196
Calendar-Rabbinic	198
Environment	199
Festivals	201
Moon	202

Preface

Many people have helped me as I have written this thesis, and I am tremendously grateful to them for their friendship and their support. I am honored to be able to publicly recognize and thank a few unique individuals, who like Torah, have given me kernels of wisdom and glimmers of understanding, treasures that are indeed beyond measure.

The members of Congregation B'nai Israel in Kokomo, Indiana, have patiently endured my explorations in combining environmentalism and Judaism over the past two years. In particular, the Pudnos and Mulis families have been ever supportive and flexible in determining our own congregational calendar; Margo Sorgman introduced me to the work of Daniel Boorstin, and Stuart and Janine Green taught me the powers of myths.

Dr. Mark Washofsky, was always able to direct me to the reference materials I needed to study the Rabbinic period, with grace and with humor. Richard Hedrick, Dana Fredrickson, and other members of the library staff at the Hebrew Union College-Jewish Institute of Religion in Cincinnati always greeted me with a smile. They taught me not only how to jump through the hoops, but through which hoops to jump.

LeRoy Doggett, of the United States Naval Observatory, graciously shared his research on calendars and moon-watching with me. Through both conversation and correspondence, he inspired me to pursue renewing the monthly ritual of observing of the moon in celebration of Rosh Chodesh.

And finally, Dr. David Weisberg, my teacher and advisor, constantly affirms and challenges me in my labors. His patience and compassion have persistently drawn out abilities I did not know I possessed and helped me to apply them not only to my research and writing, but to my personal and professional life as well. This process has been, as he promised, "a rich and rewarding experience, the ultimate expression of my beliefs and my hopes."

A few words of explanation are necessary about the technical aspects of this work.

Regarding the translations: All Biblical translations, unless otherwise noted, are taken from Tanakh-The Holy Scriptures. The New JPS Translation According to the Traditional Hebrew Text. All Mishnaic translations and Hebrew texts, unless otherwise noted, are taken from Mishnayoth, edited by Philip Blackman. All translations and Hebrew texts of the Babylonian Talmud are taken from the Hebrew-English Edition of the Babylonian Talmud, published by Soncino Press.

Regarding the transliteration: The system outlined by Werner Weinberg in How Do You Spell Chanukah? has been very helpful to me. There are however some cases where in order for transliterated Hebrew words to sound like Hebrew, certain technical conventions are not effective (e.g. Chodesh rather than Hodesh). I hope that my transliterations will not cause confusion and will be helpful in integrating Hebrew terms into the English vocabulary.

Regarding gender language: I do not believe that God is "He" or "She". When I refer to the Divine, the name depicts some of the many attributes of Adonai. However, throughout this document God is referred to, by others, as "He" because I respect the theological beliefs of those whose works are cited, and I have not emended their texts. I hold the belief that any translation is a work of interpretation, and therefore I honor the new translation of the Bible provided by the Jewish Publication Society. I have not tampered with the pronouns or any of the names by which NJPS refers to Adonai, the Sustainer, the Creator, the God of Israel.

Dedication

Larry Scott Robins

will forever be my help-mate and my partner
in our lifelong relationship with God.

I have been blessed to receive
unending support and encouragement
as I have worked on this project,
gifts far beyond what I imagined any human being could bestow.

To Larry, in love and in friendship, I dedicate this thesis.

Introduction

So long as man marked his life only by cycles of nature—the changing seasons, the waxing or waning moon—he remained a prisoner of nature. If he was to go on his own way and fill his world with human novelties, he would have to make his own measures of time. And these man-made cycles would be wonderfully varied.¹

Boorstin's conclusion is quite different from the perspective that Judaism has developed over the ages. Jews have long recognized that nature does not confine human beings, but rather it serves as a vital guide to communal life. Our tradition teaches,

God said, "Let there be lights in the expanse of the sky to separate day from night; they shall serve as signs for the set times—the days and the years..."²

Three times a year you shall hold a festival for Me. You shall observe the Feast of Unleavened Bread...at the set time in the month of Abib...and the Feast of the Harvest, of the first fruits of your work, of what you sow in the field; and the Feast of Ingathering at the end of the year, when you gather the results of your work from the field.³

And on your joyous occasions—your... new moon days—you shall sound trumpets over your burnt offerings and your sacrifices of well being. They shall be a reminder of you before your God...⁴

The sun, the moon, and the stars mark the basic units of time in the Hebrew calendar. They record the passage of time, determining our festivals, our days, our months, and our years. The various agricultural seasons: Aviv, the Harvest and the

¹ Boorstin, p. 12.

² Genesis 1:14.

³ Exodus 23:14-16.

⁴ Numbers 10:10.

ingathering, determine when we hold our most sacred religious convocations. The moon dictates the duration of each month. Celebration of its rebirth sustains our relationship with God.

Biblical and later Rabbinic understandings of nature, reflected in the Hebrew calendar, express a traditional Jewish view that people are not, as Boorstin argues, prisoners of nature. We are guided by nature. Its patterns and rhythms are deeply imbedded within each of us; they surround us each day, if we would only notice them.

Among the most obvious and stable of the ancient links of man with the world of nature are the daily, seasonal, and lunar rhythms exhibited by most functions of his body and mind. These rhythms clearly reflect the governing influence that cosmic forces exerted in the distant past on all aspects of human evolution...The behavioral patterns associated with the seasons cannot be entirely accounted for by changes in temperature or in the luminosity of the sky. They have their seat in the genetic constitution and originate from a time in the evolutionary past when man lived in such direct contact with nature that he could survive only if his bodily functions and his mental responses were precisely geared to the seasonal rhythms of nature and availability of resources...The more civilization developed, the less man remained directly dependent on nature; yet changes in his ways of life did not markedly alter his fundamental needs and rhythms.⁵

We need these basic cycles in our lives: the waxing and waning of the moon, the growth and completion of the harvests, the arrival of the first winter rains. They add meaning to our lives by providing us with a structure, and more importantly, by bringing us into a relationship with nature and with God, its Creator. In the past, the cycles of nature and responsible use of the natural resources of the world have successfully guided the Jewish people. Today, we have become distant from the natural cycles of the world. We have not been as careful of the earth's gifts as we need to be. But, a renewed sensitivity to the cycles of nature can bring us closer to the earth on which we live as

⁵ Dubos, p.49-50.

tenants and caretakers. Appreciation and wise use of limited resources can, as it has done historically, bring us closer to God, the Ultimate Owner.

Within Jewish tradition, Shabbat celebration has been one way to integrate environmental appreciation with Jewish practice. Abraham Joshua Heschel has suggested Shabbat is the time when humans are to be "*independent of technical civilization*: We abstain primarily from any activity that aims at remaking or reshaping the things of space. Man's royal privilege to conquer nature is suspended on the seventh day."⁶ Shabbat is a day set aside from all others to appreciate the holiness of creation.

To set apart one day a week for freedom, a day on which we would not use the instruments which have been so easily turned into weapons of destruction, a day for being with ourselves, a day of detachment from the vulgar, or independence of external obligations, a day on which we stop worshipping the idols of technical civilization, a day on which we use no money, a day of armistice in the economic struggle with our fellow men and the forces of nature—is there any institution that holds out a greater hope for man's progress than the Sabbath?⁷

This belief is echoed and explicitly tied to ecological sensitivity by Ehrenfeld and Bentley,

Without the influence of the Sabbath, stewardship in practice is corruptible and unstable. For Jews, it is the awareness of the Sabbath during the working days that can bring the realm of time and its accompanying sense of restraint and limit to stewardship. It is the Sabbath that defines the relationship between steward and Ruler. It is the Sabbath, ultimately, that completes and confirms the environmental wisdom of Judaism.⁸

Shabbat provides a weekly reaffirmation of the human link to nature and to God. In addition to this weekly connection, the Hebrew calendar provides monthly and

⁶ Heschel, *The Sabbath*, p.28-29.

⁷ Heschel, *The Sabbath*, p.28.

⁸ Ehrenfeld and Bentley, p.311.

seasonal opportunities to nurture these relationships. The Hebrew calendar brings us into contact with nature, rather than allowing nature to imprison us. Rosh Chodesh, Pesach, Shavuot and Sukkot are all opportunities for us to patiently observe the recurring cycles of nature and to render praise to the One who created them all. The Hebrew calendar, at its core, encourages observation and blessing of nature's greatest gifts of beauty and allows them to define the patterns and times in our lives.

All my life I have been a collector of nature's rarest and most subtle gifts—nature's *cryptophenomena*. I am not talking about Loch Ness monsters or pots of gold at the end of rainbows, or other purported creatures or objects that if they were real would be of a spectacular nature. Rather I am talking about aspects of the *ordinary* and *presently real* that hide in their very delicacy—very young moons, certain ephemeral kinds of frost, and the zodiacal light are examples—things that require for their observation nothing but knowledge and patience.⁹

Through the Hebrew calendar, by observing the new moon; by heralding the arrival of the wheat harvest on Pesach; by proclaiming the bounty of the land on Shavuot; and by anticipating the rain on Sukkot; we become collectors of nature's most subtle and dramatic powers. We come to understand that we alone can not call forth these miracles of growth and renewal. The Hebrew calendar illustrates it is only by our partnership with the Creator that the natural cycles and their gifts are sustained.

"An analysis of the calendar of a given society, or even an investigation into a specific or detailed calendar problem, will often reveal aspects of social and economic life that surpass the mere 'calendric' nature of the initial inquiry."¹⁰ Study of the Hebrew calendar reveals not only social, economic and religious elements of Jewish life, it most importantly indicates ecological sensitivities and theological relationships. Study of the Hebrew calendar clearly indicates a connection with the natural cycles of the heavens

⁹ Raymo, p.145.

¹⁰ Talmor, *King, Cult, and Calendar...*, p.89.

and the earth. These cycles release us. They free us to enter into relationships with the Creator, as partners in the ongoing work of Creation.

As I conclude this rabbinic thesis, regarding the connections between the historical Hebrew calendar and its sensitivity to contemporary environmental issues, a war is being fought in the Persian Gulf. Americans, Europeans and people from Arab lands are allied against Iraq, "to liberate Kuwait." Israel is under constant threat and attack of SCUD missiles. There have moments in the past months when my work has seemed all too theoretical in the face of the life and death issues of peace and war. It has, however, become increasingly clear that issues of the calendar, theology, ecology, and of war are tied all too closely together. Lowdermilk addresses this poignant connection:

Here is a challenge greater than the challenge of war. For it is not until mankind works out a lasting adjustment to the good earth, more especially to its soils and the rains that fall on them, is there much hope of peace on earth or good will among men. Hungry people do not keep the peace, they do not stay within their own borders. What happens to their land in the final reckoning will decide this race between civilization and famine.¹¹

My work explores the relationships that could be developed between human beings and God, by means of an appreciation of the natural world, as expressed in the Hebrew calendar. In light of the current world events I hope it will also be read in a broader scope and will express the connections between God, the land and the inhabitants; the issues of war and death, of life and of peace.

Debra J. Robbins
February 21, 1991
7 Adar 5751

¹¹ Reifenberg, p.9.

Chapter I

CALENDAR DEVELOPMENT IN THE BIBLICAL PERIOD

BACKGROUND TO THE HEBREW CALENDAR IN THE BIBLICAL PERIOD

Egyptian Calendar

In its earliest stages, the ancient Egyptian calendar was based on three seasons within a year. The year began in the season of *Akhet* or Inundation. This was the time when the Nile rose and overflowed the fields, generally in the middle of the summer. The season of *Peroyet* or Coming Forth, took place when the water would recede and arable land would again emerge. It was at this time, in the fall, that seeding, tilling, growing and harvesting would occur. The year would conclude with the season of *Shomu* or Deficiency. This was the time when the Nile was at its lowest point, following the harvest and prior to the next inundation. "The recognition of these seasons, based upon climatic and agricultural factors, was undoubtedly very old."¹

While ancient Egypt remained an agriculturally based society, as they began to observe and calculate the patterns of the stars and the lengths of the days, people began to integrate astronomical factors with agricultural seasons. The year began with the lunar month, which began after the river started to rise (late spring). This summer season also included the time of summer solstice and the first reappearance of the Sirius star at sunrise.

Thus if the great summer inundation was originally taken as signaling the beginning of a new year in an agriculturally oriented reckoning, these two celestial events, which fell within the same period...were available to provide a more precise point of beginning in an astronomically oriented reckoning. Since the reappearance of Sirius

¹ Finegan, p.21.

at sunrise was the more readily observable event, it is probable that this is what was first utilized.²

Following this initial transition from an solely agricultural calendar to a partially astronomical calendar, Ancient Egypt developed three different calendars. The first was a luni-stellar calendar determined in reference to Sirius. It demanded an intercalary month every three years and was in use until the Proto-dynastic period. The second calendar was a solar calendar, made up of twelve months, each with thirty days and five epagomenal days inserted at the start of the lunar year. The months were not measured according to the new moon but were rather fixed units in a solar year (this is why it is called a "solar calendar"). This calendar is also referred to as schematic because the units have artificial regularity. This type of calendar was introduced sometime between 2937 and 2821 BCE and became the standard calendar of Egypt. Neugebauer upholds, "This calendar is, indeed, the only intelligent calendar which ever existed in human history."³

The third Egyptian calendar developed because of disharmony that existed between the civil calendar and the solar calendar. This new calendar was introduced around the year 2500 BCE with the intention of unifying the two systems. All three calendars remained in use throughout ancient Egyptian history.

This calendrical material concerning Ancient Egypt is significant to the development of the Hebrew Calendar because the Israelites were living in Egypt until the time of the Exodus (between 1275 and 1250 BCE).⁴ These were the calendars with which the Israelites lived and were familiar. At this time in history they did not have their own methods and patterns for measuring time. They lived in accordance with the rest of

² Finegan, p.22-23.

³ Neugebauer, *The Exact Sciences in Antiquity*, p. 81.

⁴ Seltzer dates the Exodus of the Hebrews from Egypt around 1260 BCE, sometime during the reigns of Sethos I (c. 1305-1290) or Ramses II (c.1290-1224), p. 17. Determination of the time period in which the Israelites were in Egypt has focused on a variety of theories many of which are discussed by Miller and Hayes, pp.65-75.

Egyptian society reckoning seasons and months by the agricultural seasons and by solar and civil calculations.

According to Nahum Sarna all of this changed dramatically with the Exodus of the Jews from Egypt. He writes,

A liberated people must evolve and stress its own national existence and forge its own institutions. One of its first desiderata is the establishment of a uniform calendar. Such an institution is a powerful instrument of societal, cultural and religious cohesion.⁵

From the very moment the Israelites left Egypt they began to live by their own calendar. We can only assume that prior to the Exodus they lived by the various Egyptian calendars, but Exodus 12:2 indicates a radical change. It is here that Israel begins to celebrate the start of the year in springtime. "This month shall mark for you the beginning of the months; it shall be the first of the months of the year for you." We learn from Exodus 13:4 a more specific time for this awesome event, "You go free on this day, on the new moon of Abib." This event based on the Biblical commandment, "You shall observe the Feast of Unleavened bread...at the set time in the month of Aviv, for in it you went forth from Egypt..."⁶, will come to be the compelling factor in all future calendar determinations of the Israelite people. As Sarna asserts, "We know nothing of Israel's earlier calendar, but the phrasing unmistakably points to an innovation, to a break with the past."⁷

And so the Israelites find themselves in the wilderness of Sinai, with a need to create the national institution of calendar to keep track of the set times, the days and the years.⁸ They strive to create something new that belongs to them in its uniqueness, and

⁵ Sarna, p., 81.

⁶ Exodus 23:15

⁷ Sarna, p., 81.

⁸ Scholars disagree about the arrival of the Israelites departure from Egypt and entrance into Canaan, both in regard to the dating of the events and the forms they took. Miller and Hayes suggest that what occurred was not as direct the departure and conquest described in the Genesis-Joshua account nor is it a complete rejection of this narrative. They suggest, "Some of the ancestors may have been part of the old Semitic

they have the benefit of models from the developing Egyptian calendar system.

Throughout the Biblical period, from the time of the Exodus from Egypt to the return from Exile in Babylonia, the Israelites struggle to develop a calendar that is practical in its use and reflects the natural cycles of the agricultural world around them.

Aviv

The ongoing need to celebrate liberation at the spring harvest, during Aviv, will be the dominant factor in future calendar determinations of the Israelites. Aviv in modern Hebrew is the season of spring. In the Bible, Aviv refers to "the particular stage of growth in grain at the beginning of its ripening process, after the stalks have hardened."⁹ Aviv is a word that refers to a time of year rather than a specific date, it reckons time based on a specific event which takes place in the natural world.

The "month of Aviv" is the month during which grain (first barley, later wheat) reaches the stage of development called *Aviv*. Since plant growth and development is controlled by the sun, this Biblical "month of Aviv" falls in the same solar season every year. It is clear, therefore, that the first month (Nissan), one of the lunar months, is not identical to the "month of Aviv" which is determined by the sun...¹⁰

This month of Aviv, the time during which the grain ripens is the central event around which the Israelites will organize their calendar. This method of determining time in accordance with events in the natural world is consistent with the Israelite way of life.

That which characterizes the Israelite conception of time is...not so much the distances, as the substance and context of events. The conceptions of time and space

stock that had occupied Palestine as far back as written records go. Some may have settled the land gradually throughout the Bronze Age, making seasonal use of Palestine's grazing lands. Some may have been counted among the disaffected Habiru known from the Amarna correspondence. Some may have been escaped slaves from Egypt or migrating Arameans who settled the land. Some may have entered Palestine along with the Sea Peoples, or have been thrust into the hill country as a result of the disturbance and pressure created by the Sea Peoples. Again, there is probably no single explanation to be given for the origins of Israel and Judah; there are many explanations." p. 78-79.

⁹ Hareuveni, ... Biblical Heritage, p. 49.

are...determined by their character and quality... one reckons with periods but in that one sees the experiences gather round a special feature which pervades the whole, an important event or a prominent man.¹¹

✓ Aviv was defined, not by a specific date but by an event, by the occurrence of the ripening of grain in the ancient Israel. It is a time that can be anticipated but a specific date cannot be predicted for this event. Agriculture in the Biblical period was an imperfect science and the time of ripening and harvest depended on the amounts of rain and sun that had been present throughout the various seasons.

The festival observances were originally tied to a variety of factors, the weather, and the state of the crops and the herd, rather than a specific date.¹² The necessity of keeping a festival observance in Aviv forced the Israelite calendar to develop differently than other calendars. The calendar developed by the Moslems is not tied to the agricultural events of a specific time and place.

[In the Moslem calendar] the months are 29 or 30 days, and each begins with the new moon, but they have no connection with the seasons...So not only do the months not correspond with seasons, a period of time measured in years on the Moslem calendar does not correspond with the same period of time measured by years of the sun.¹³

The result of this calendar is that the major Islamic festival of Ramadan wanders backwards throughout the seasons. Each year it falls eleven days earlier than the year before; sometimes it falls during the winter and in other years during the summer. "This system is unacceptable for the Jewish calendar because the Torah says the holidays must fall in the proper seasons."¹⁴

¹⁰ Hareuveni, ...Biblical Heritage, p.49-50.

¹¹ Pederson, p.490.

¹² Anderson presents the development of the festivals a little bit differently. He asserts, "These three pilgrimage feasts, adopted from the old Canaanite calendar, were the feasts of Unleavened Bread, of Weeks and of Tabernacles. In the course of time these agricultural feasts were historicized—reinterpreted in terms of Israel's sacred history." p.558.

¹³ Bushwick, p.49.

¹⁴ Bushwick, p.49.

In order to avoid this problem of the festivals moving backward through the seasons, the Israelites developed a calendar system that periodically adds an additional month to keep the lunar months in balance with the solar year. This was imperative not only for practical reasons but also for agricultural, theological, and historical reasons.

In the absence of this method of adding a "leap month" the commemoration of the exodus from Egypt—a most crucial event in the history of Israel—would have "wandered" throughout all the seasons of nature. The holiday would then have retained only historic importance: its agricultural significance would have eroded. On the other hand, agricultural ritual might have developed, centered around the month of Aviv, dissociated from this momentous event in the history of the people. This might have strengthened the natural inclination to separate sources of supernatural power and "serving two alters" might well have become permanent.¹⁵

The Hebrew calendar has become intertwined with the ancient agricultural practices of the land of Israel. Today, we still determine the times of our festivals based on the season of Aviv, the ripening of the grain as it occurred thousands of years ago.

Moon and Month

As has already been discussed, the name of an object or event is often times an indication of its meaning and significance in the lives of human beings. For the ancient Israelites the word **חַדָּשׁ** meant both "month" and "moon". This is an indication of the connection that the lunar cycle had on this measurement of time.

The rule of sun and moon consists in their governing time. It does not mean that they are used to measure distances in time. For the Israelite time is not merely a form or a frame. Time is charged with substance or, rather, it is identical with its substance; time is the development of the very events...the character of the time is always determined by that which happens.¹⁶

¹⁵ Hareuveni, ...Biblical Heritage, p.50.

¹⁶ Pederson, p.487. For Biblical proof-texts of this idea see Isaiah 13:10, Joel 3:3, 4:15, Amos 8:9, Micah 3:6, Job 3:5.

The ancient Israelites measured the "month" in accordance with the life of the moon (lunation). The period of time was directly measured and known by the event that took place—the cycle of the moon. When the moon was first seen as a small crescent in the sky at sunset, the new month began and it continued until the moon was seen again at the same stage about twenty-nine days later. This phenomenon of the same word meaning moon and month is common in many Semitic languages. According to Abraham Savasord in Sefer Haibbur, "just as in many languages, so also in Hebrew the same word denotes the moon and the month."¹⁷ The Chicago Assyrian Dictionary defines חַד as *ahlu* meaning moon, new moon, or month.¹⁸

The usual Hebrew term for moon is יָרֵחַ .¹⁹ It is related to the verb חָנַח which means "to journey or to travel", and, in the case of the moon, it refers to the progress the moon makes across the night sky. This word can also refer, not only to the moon as an object in the sky, but to the period we call a month.²⁰

The Israelites had another word which was also used to designate a month. The Hebrew word חֹדֶשׁ originally referred to "the shining glittering new moon and later came to designate the festival of the new moon day, as well as the whole month."²¹ Two additional terms were also used in conjunction with the moon and the month. The older term, which was used biblically but not later in the Mishna or the Babylonian Talmud, was יּוֹם הַחֹדֶשׁ .²² The more widely used term is רֵאשִׁית חֹדֶשׁ meaning the beginning or the first day of the month.²³

¹⁷ Gandz (1949), p.259.

¹⁸ Chicago Assyrian Dictionary p.249.

¹⁹ An alternative poetic name for the moon is לַבְנָה .

²⁰ The complex meaning of the word חַד is apparent in the text of Deut.21:13 in which it is used to refer to a full cycle of the moon, a month. And in Job 29:2 in which he wishes to be like the moon that has past, he wishes to be restored to the way he was in months gone by.

²¹ Gandz (1949), p.260.

²² See Ezra 46:1, 6, I Samuel 20:34 and Exodus 40:2 for examples of this expression

²³ See Numbers 10:10 and 28:11 for examples of this usage.

It is not surprising that the Israelites developed this connection between the month and the moon. Whereas Ancient Egyptian culture focused for a long time on the centrality of the sun, "worship of the moon figured prominently in the early pagan cults of Canaan...where it [the moon] was considered a male deity...and sacrifices were made to it on the day of the new moon..."²⁴ The centrality of the moon in religious practice and in societal structures was well established in Canaan. It is natural that the Israelites absorbed part of this culture into their own. In time, "worship of the moon was forbidden in the religion of Yahweh,²⁵ but this prohibition was a late innovation—as late as the literary redaction of the code in which it is now embodied."²⁶

It is for this reason that **יָמֵי הַחֹדֶשׁ הַשְּׁלִישִׁי** and not **יָמֵי הַחֹדֶשׁ הַרְבִּיעִי** came to be the preferred name. "Day of the New Moon" was "offensive as a pagan survival, it reminded one of the worship of a heavenly body, of a day dedicated to the new moon."²⁷ For the ancient Israelites the moon was not something to worshipped. It was something to be praised among the creations of God, and it was something to be praised because it provided a natural, God-given, means of measuring time. It is for these theological and religious reasons, the terminology surrounding the month developed in the way that it did. Furthermore it should be clear there is an intimate connection between the natural cycles of the moon and the measurement of time we now call a month. This natural 29-30 day cycle was observable and came to influence the lifestyles and institutions of the ancient Israelites.

The Hebrew calendar maintained the centrality of the moon, while other calendars abandoned this basic and naturally observable event. The Roman calendar changed the definition of "month" from a period of time, measured on a full cycle of the moon, in order to create an accurate calendar.

²⁴ Gaster, p.436.

²⁵ Deuteronomy 4:19, 17:13.

²⁶ Gaster, p.436.

²⁷ Genz (1949), p.260.

They give up the original meaning of month as the period of the moon and instead divide the year into twelve approximately equal periods and called them months. In our calendar however, we can not do that because God commanded us to start each month with the appearance of the new moon...²⁸

The major problem with a strictly lunar calendar is that the lunar year is about 11 days shorter than the solar year. If the Israelites had adopted a strictly lunar or a strictly solar calendar, their festival observances would have roamed throughout the seasons of the year. This was directly in conflict with the Biblical injunction to celebrate the Exodus from Egypt at the new moon of Aviv.

The linking by means of the leap month of the historical event of the exodus from Egypt with the agricultural month of Aviv is rooted in the inculcation of the monotheistic belief that the success of the crops is dependent on the same God Who brought the people out of Egypt...²⁹

Adjustments had to be made to the lunar cycle in order to maintain the festivals at the appropriate seasons and to preserve the centrality of one God in the lives of the people. The moon was one of the most elementary ways of measuring time and it became the major element in the calendar development of the Israelites.

The lunar cycle...does not tax too severely the memory or the mathematical ability of primitive man. The waxing and waning of the moon are constant; and the phasis in each month is always preceded by a few nights in which no moon is visible...³⁰

The experience of the Israelites in Egypt, the importance of the season of Aviv, and the centrality of the moon are all factors that significantly influence the development of the Hebrew calendar during the Biblical period, from the time the Israelites enter Canaan until the time when the calendar is definitely determined in the first century CE.

²⁸ Bushwick, p.49.

²⁹ Hereuveni, p.50.

³⁰ Segal, p.253.

To this day, Jews have maintained lunar months and continued to centralize and celebrate the new moon as a naturally occurring means of measuring a month.

HEBREW CALENDARS OF THE BIBLICAL PERIOD

Introduction

The Israelites during the Biblical period were an agriculturally centered people.³¹ They were primarily involved in planting and harvesting crops.³² They lived in semi-permanent dwellings and were vulnerable to the natural elements, heat, cold, rain, hail, frost and blight. The Israelites created for themselves shelters from the elements, but basically, they lived in nature. An Israelite would rise with the sun and sleep when it became dark. He would notice the path of the sun in the sky. She would keep track of the shapes of the moon. Children would recognize the repeated pictures and patterns of the stars. The Israelites were very connected not only to the patterns of the sky but also to the patterns of the land. The olive and grape harvests would conclude, and the Israelites would wait for rain in order to plant new fields and then wait again for the ^{barley} wheat and then the ^{wheat} barley to ripen for harvest. And then the pattern would repeat itself, in cycle after cycle, and the Israelites lived in harmony with these natural cycles of the earth.

These natural cycles of the sky and the earth came to dictate the economic, religious and social lives of the Israelites and were expressed in the calendars.³³ The

³¹ Miller and Hayes uphold, "The topography and climate of Palestine predisposed the area to an agrarian-pastoral village economy and lifestyle...Agrarian and pastoral interests were pursued more in harmony than in competition, although one notices occasional allusion in ancient Middle Eastern literature to differences between the life-styles of the city-farmer and the life-style of the tent-dwelling shepherd." p.50-51.

³² According to Fleissner, "The rapid growth of numerous settlements shows that the Israelite conquerors were not true nomads but had long been acquainted with agricultural life." p.64.

³³ Miller and Hayes explain "Perhaps the most important point to be made is that the rhythm and routine of life in preindustrial Palestine was thoroughly immersed in the climatic and agricultural patterns of the land. Fall plowing and sowing, winter pruning, spring harvesting, early summer threshing, and late summer gathering set the dominant agricultural chores. Pastoral pursuits were carried out in the context of this same larger rhythm of life. During the rainy months, when crops were growing, the 'wilderness' areas provided pasture; in the summer, the freshly harvested lands could be grazed and the crop residue after threshing used as fodder." p.52.

Hebrew calendar was in an ongoing state of change during the Biblical period, stabilizing only in the first century CE. As the Israelites developed as a nation, the calendar evolved to reflect political situations and to accommodate outside influences. Within all of the evolution two factors remained constant, the role of the lunar month and the need to celebrate a festival in Aviv. This sensitivity to the natural cycles of the world makes the Hebrew calendar unique. Despite all of the changes the Hebrew calendar has gone through in the Biblical and subsequent time periods, these two factors have remained central and thereby essential to the Hebrew Calendar.

Having surveyed much of the literature about the Hebrew Calendar in the Biblical period, I propose there were three major stages of development which took place during this period. My theory combines elements of theories developed by Morganstern,³⁴ Konig,³⁵ and Segal³⁶. Stage I dates from the time of the Exodus (1275-1250 BCE). Stage II begins with the period of the Monarchy (1000 BCE). Stage III is post-Exilic (after 538 BCE up until the 1st century CE). These calendars all share in common two important elements: all involve some sort of reckoning of the month in accordance with the moon; and all recognize the need to insure a festival in Aviv. In a very broad context all three calendars are based on natural occurrences and human observation of those events. This stands in sharp contrast with calendar reckoning in our own day which is based on scientific calculation rather than sensitivity to the natural world and its cycles.

Stage I: The Canaanite Calendar

Stage I begins when the Israelites enter Canaan from Egypt between the years 1275-1250 BCE. The calendar of the indigenous people resembled that which they had

³⁴ Morganstern also argues in favor of a three stage development of the Hebrew Calendar but our dating differs as does our analysis of the content of the calendars.

³⁵ Konig upholds a two stage development. Calendar I was in use up until the year 600 BCE when it was replaced by Calendar II. See Morganstern (1935) for more details of his argument.

³⁶ Segal also outlines three stages of calendar development based on a solar reckoning. Phase I is up until the Monarchy, Phase II is until the return from Exile and Phase III is post-Exilic. While he and I agree in time periods we do not agree in content. See Segal for more details of his theory.

just left behind, the solar calendar of Egypt. The Israelites struggled to build their own identity and to express it through their calendar, but they found it was easiest to adopt and then adapt the system of the Canaanites. This strictly solar calendar had to be transformed to include 1) measuring months in accordance with moon and 2) maintaining the centrality of the month of Aviv. This earliest calendar was,

borrowed completely and seemingly with little or no modification by the Israelites as an integral part of the Canaanite agricultural civilization which they assimilated...[this calendar was] cognizant of fixed moments in the solar year, the equinoxes and the solstices...It took cognizance likewise of the variable state of the crop in different parts of the country...it may have been largely local rather than national in character.³⁷

The Canaanite calendar was oriented primarily toward the sun,

...the rising of the sun began the day; the equinoxes were the turning points of the year. If this was the case, then, in the lack of other evidence, the guess may be hazarded that the months were not tied closely to the phases of the moon but were units of the solar year probably thirty days in length, as in the "schematic" calendars of Egypt and Mesopotamia, and that the resultant shortage was simply made up by the insertion of additional days at the end of the year.³⁸

While the moon was the object used to reckon the length of a month, the sun also played a central role in determining the calendar of the Israelites. It distinguished between day and night and was also visible testimony to the year.

It is the nature of the sun to follow a certain course, so that it comes and goes regularly; this is its contribution to the totality of the universe, hence its covenant with God³⁹. A "day" is all that happens in connection with the sun. There are things which can be done in connection with the sun, and there are things which can only be done at night...⁴⁰

³⁷ Morgenstern (1935), p.5.

³⁸ Finegan, p.36-37.

³⁹ Jeremiah 33:20.

⁴⁰ Pederson, p.489.

Evidence of this early Canaanite calendar as it was adapted by Israelites is evident today within the Biblical text. The month names which survive in the Biblical text reflect the centrality of the sun in determining the Stage I calendar of the Israelites because they are the months which represent the spring and fall equinoxes.

Four Canaanite month names are known to us from the Hebrew Bible. *Ethanim*⁴¹ is "the month of steady flowings" i.e. the month in which only perennial streams contain water. This month corresponds to September/October in today's calendar reckoning.⁴² *Elul*⁴³ is the rain month and considered to correspond to October/November of our calendar cycle. *Aviv*⁴⁴ refers to the "fresh ear of grain" and "was derived no doubt from the fact that this was the beginning of the harvest."⁴⁵ *Aviv* occurs during March/April according to our reckoning of the calendar today. *Ziv*⁴⁶ is the month of splendor, "with reference, Gesenius supposes, to the beauty of the flowers, but it might be to the general beauty of Nature at this season, before vegetation has suffered from the summer drought."⁴⁷ The names of these months indicate that not only was the Canaanite year organized around the sun but it was also dictated by the agricultural events of the region. Additional names of Canaanite months have been found in Phoenician inscriptions and were with all probability also used by the ancient Israelites in Canaan although there is no direct evidence of their use.⁴⁸

The Stage I calendar of the Israelites was guided by the sun and by agricultural and natural occurrences.

Climatic and agricultural factors doubtless called attention to the cycle of time that is the year...in Palestine the climate was marked by the 'early rain' or "autumn rain" which came in October/November and the "later rain" or "spring

⁴¹ I Kings 8:2.

⁴² Woods, p.109.

⁴³ I Kings 6:38.

⁴⁴ Exodus 13:4, 23:15, 34:18, Deut. 16:1.

⁴⁵ Woods, p.109.

⁴⁶ I Kings 6:1, 37.

⁴⁷ Woods, p.109.

rain" which came in March/April (Deut. 11:14, Jer. 5:24) as well as by the recurrence of summer and winter (Zec. 14:8)...And the agricultural seasons likewise returned regularly with the ripening of the olives in the fall...and the shooting into ear of the barley in the spring.⁴⁸

Events such as the harvest, the new crops, and the advent of rain were occasions for festivity. These events came to be representative of seasons and time periods which formed the basic structure of an agriculturally based seasonal calendar. Because the lives of the Israelites were so dependant and intimately tied to the fruit, wheat and barley of the fields, it is natural that they came to measure time based on these occurrences. Just as many people in a capitalist society today measure time from tax season to tax season so too did the ancient Israelites in their agricultural society measure time from harvest to harvest. The calendar was determined by the readily observable events in which the community was directly involved agriculturally.

Calendar reckoning was not considered to be dependant upon abstract calculations. The calendar was subject to events which could be directly perceived... The framework of the calendar was provided by agricultural seasons which gave rise to festivals connected with the main features in the annual cycle of the farmer's life.⁵⁰

Within the land of Canaan there was difficulty in reckoning the calendar in accordance with the commencement or conclusion of a particular crop. The region's variety of temperate zones, hills, valleys, mountains, and desert provide numerous conditions for agricultural growth. It is unlikely that grains growing in the north would ripen at the same time as grains growing in the south.

✓ ...In the pre-monarchic era agricultural festivals were not celebrated at one and the same time in all parts of Palestine...Harvest ceremonies may have been spread over a certain period of the year... partial synchronization was achieved already during the first stages of settlement

⁴⁸ Woods, p. 109.

⁴⁹ Finegan, p. 18.

⁵⁰ Talmon, King, Cult and Calendar... p. 120.

of the Israelites in Canaan [in communities with similar climatic conditions]...⁵¹

It is difficult to know what the Hebrew calendar was like at this early period in Biblical history. The Israelites used the Canaanite months. The sun played a central role in determining seasonal divisions, and agriculture was the dominant factor in determining the passage of time. The variety of temperate zones within Canaan and the lack of unity among the people indicates that festivals were celebrated locally within a certain span of time but were not centrally and uniformly observed during this early stage. It is clear however that the the moon and the season of Aviv continued to be central factors in the determination of the Hebrew calendar.

Stage II

As the Israelite community became more organized and structured under the influence of a monarchy, the calendar continued to evolve and became a tool of political manipulation. STAGE II in the development of the Hebrew Calendar took place from about 1000 to 586 BCE. This stage is characterized not so much by the innovations or changes made to the calendar but rather by the way the calendar was used by the different ruling powers. As a powerful political tool, the calendar, during this period, became more regulated and took on a form similar to the form we recognize today. It is significant that the connections to agricultural life were maintained and even strengthened, as was the role of the moon, in reckoning the month. The monarchs may have used the calendar to manipulate the people, but it was also used to unify them in their festival observances.

During the time of Solomon, Jerusalem was the unifying element in the social structure of the Hebrew nation. Everyone needed to celebrate the festivals at the same time, and everyone needed to pay taxes at the appropriate season. Thus the need for a

⁵¹ Talmon, King, Cult and Calendar... p.121.

more fixed calendar arose. Because the unifying institution already existed in the form of the monarchy, the calendar was a natural extension of unification during this period. To control the calendar was to control the festivals and the taxes, and thus it became a powerful and often manipulated tool by various powers during the years between 1000 and 586 BCE.

...but a full scale synchronization, affecting all Israel and going counter, in a sense, to climatic conditions and agricultural requirements, could have been established only by centralizing forces as were inaugurated by David and Solomon. The harvest feast, as other ceremonies, was then divorced from its direct and immediate relation to the family and to rural norms and became a more or less royal undertaking...⁵²

The Gezer Calendar is the earliest evidence we have of this sort of unifying calendar. It is for this as well as other reasons that this inscription is so valuable to understanding the Hebrew Calendar in the Biblical period.

The Gezer Calendar

The Gezer calendar was discovered by R.A.S. McAlister in 1908 at Gezer, an area northwest of Jerusalem. Historians conclude that Gezer was a city fortified by Solomon which survived only a short time during the 9th century BCE. It was replaced by Gibbethon as the major fortress of the region, and was destroyed in 918 BCE by Shishak on his way to destroy Meggido. Apparently, the town was leveled to the ground, and therefore there are no indications of a conflagration.⁵³

The Gezer Calendar was probably written during this brief period of Israelite occupancy between 950 and 918 BCE. It is a Hebrew inscription of seven lines, engraved into soft limestone. Based on the ancient Hebrew script used, the Gezer calendar is dated to the 10th century BCE making it one of the oldest written documents

⁵² Talmon, *King, Cult and Calendar...*, p.122.

⁵³ Albright, "The Gezer Calendar", p.18.

of agricultural life during the Biblical period. "It may be regarded, on linguistic and palaeographic grounds, as the most ancient inscription on Early Hebrew writing, as old as the age of Saul or David."⁵⁴

There are a variety of theories regarding the nature and purpose of this inscription. Some scholars consider this to be an exercise in writing, believing that the repetition of letters and the indications of erasure marks are evidence that this was the elementary work of someone learning to write.⁵⁵ There are those who hold that this inscription records a popular folk song of the period.⁵⁶ And, there are those who believe that this stone was a table indicating the taxes which were to be collected at each season by the ruling power.⁵⁷

Albright comments that the Gezer Calendar is in the form of a mnemonic, by remembering the events, of 3 double months, then 3 single events, then a double, and then a single, the agricultural seasons could easily and readily be remembered.

For a grown peasant, to whom the succession of agricultural activities was as familiar as the use of his senses such rhythmic enumeration would have no importance; to a child who had not yet learned the immutable sequence of activities it would be just as useful as our familiar "thirty days hath September..."⁵⁸

While this may have been originally a childhood rhyme, it may well have served an important role and been widely known in Israelite society. We will never know the exact purpose of this inscription, but we can derive a great deal of valuable information

⁵⁴ Maucheline, p.201.

⁵⁵ Maucheline p.201. For a discussion of "the oldest and most complete linear alphabet of 22 letters," see Aaron Demsky "A Proto-Canaanite Abecedary Dating from the Period of the Judges and its Implications for the History of the Alphabet" *Tel Aviv* 1977 (Vol.IV), pp.14-27.

⁵⁶ Honeyman upholds that this tablet is one half of an antiphonal recitation of the names of the months and the seasons or occupations that are associated with them. "The Gezer pupil who could recite his tally of month names and at the same time give them their places in the year by writing out the duration and characteristics of the corresponding agricultural phases would produce just such a statement of calendrical lore." p.58.

⁵⁷ Talmon, *King, Cult and Calendar...* p.90.

⁵⁸ Albright, "The Gezer Calendar", p.25.

from it regarding the role of the calendar in the life of the people living in Gezer during the years surrounding 925 BCE.

Albright translates the text as follows:

His two months are (olive) harvest,
His two months are planting (grain),
His two months are late planting;
His month is hoeing up of flax,
His month is harvest of barley,
His month is harvest and *feasting*;
His two months are vine-tending
His month is summer fruit.⁵⁹

Albright reads the final word of line five as ונל whereas Gibson and other scholars read this final word of line five as וכל. Albright argues,

Previous students have all read כ before ל but this reading is achieved by disregarding part of the complex of incised lines, by assuming a form of כ without good parallel in any period and otherwise unknown in the 10th and 9th centuries, and by putting the כ unusually high on the line. I assume that the upper three strokes were already found on the surface being remains of previous incisions, intentional or accidental, and that their presence caused the scribe to write his letter just below. The two lower strokes for a ל perfect for that age, only a little low in the line. There is no third possibility.⁶⁰

In addition to this emendation of the text, Albright goes on to construct a detailed scenario of events that must have occurred to render his reading of the inscription valid.⁶¹ He goes on to bring two Biblical proof-texts which support his translation of feasting/rejoicing⁶². These texts support the occurrence of a time of

⁵⁹ Albright, "The Gezer Calendar", p.22-23. See Appendix for drawing and photograph of this tablet.

⁶⁰ Albright, "The Gezer Calendar", p.23.

⁶¹ Albright provides this rationalization in Note 38a on page 23. "For instance, the boy, who was presumably writing from dictation may have heard wakil (for w-hakil) instead of wagil and may have written an archaic kaph (without a stem). Then he may have noticed his error and have incised a gimel directly below his kaph, following it by a lamed (correctly aligned with the characters before kaph/gimel, though too low for one and too high for the other)."

⁶² Deut. 16:9-12 and Isaiah 9:2.

rejoicing in conjunction with the harvest but are too general and do not add significantly to the understanding of the calendar as a reflection of agriculturally based seasons.

Gibson reads the inscription differently than Albright and his argument is more straightforward and perhaps more convincing. He adds yet another detail to the agricultural cycles as experienced by the ancient Israelites. Gibson reads the final word in line five as כָּל and translates it as "measuring". He argues,

כָּל = [kel] base KYL. [It appears] only once in the Bible (Isaiah 40:12)⁶³ but it occurs in another inscription, Yavneh-yam 5, also in a farming context. The activity would take place on the threshing floor and perhaps involved the payment in kind of debts and taxes...⁶⁴

Gibson does not disregard or attempt to explain away incisions on the stone as Albright did by means of a detailed scenario. His Biblical citation is singular, but it is directly relevant and helps to support the flow of agricultural events which appear to govern the calendar. ⁶⁵

The people living in Gezer were aware and most likely used the Canaanite names for months. but this text indicates they were also sensitive to the natural seasons. As an agriculturally based community, their lives were dependant on the produce of their fields, and thus they were intimately tied to the earth. This connection with the crops and the fields was so primal to them that they would refer to the times of the year in accordance to the agricultural cycles.

The peasant population were accustomed to use, alongside the usual official names of the months, also designations that were based on agricultural tasks...and as a farmer who was proud of his ability to write, the author of

⁶³ Radak confirms this reading of כָּל from Isaiah 40:12. He affirms that it is similar to the word כָּל which also means "measure". Radak explains that it refers to the measuring of sheaves of grain and is found to have this meaning as well in the Targum.

⁶⁴ Gibson, p.3.

⁶⁵ According to Cassuto, Ginsberg reads the text in yet another way. Ginsberg read, "yerah qas or wk halle" meaning month of harvesting and finishing. p.215.

the tablet engraved such names in order to make use of his skill and to demonstrate his talents...⁶⁶

The chart in the Appendix indicates the correspondence between the months of the Gezer Calendar, the Canaanite months, the Hebrew Months, and the Roman months (our months today), also included are Biblical references to support the various agricultural events.

These agricultural seasons, which are indicated within the Gezer Calendar, are also present in the Biblical text. The passages cited indicate the centrality of the agricultural seasons, and the natural flow that existed between them. As in the Gezer Calendar, no specific months are mentioned in these Biblical passages, yet they serve as evidence that the people of the Biblical period were familiar with this sequence of time and events. While they had use of specific Canaanite month names, the standard and most widely used measurement of time was based on seasonal agricultural occurrences. Talmon concludes,

...These climaxes such as sowing and harvesting, can not be objectively determined, as can the rotation of the sun or the moon. Their appropriate time will differ from year to year and from region to region...The agricultural calendar was therefore not concurrent with the astronomical division of the year into twelve, more or less equal, stretches of time. It was governed by considerations of agricultural seasons which lent themselves to a division into eight periods as we may learn from the Gezer Calendar.⁶⁷

The Gezer Calendar indicates eight agricultural seasons, which are perpetuated in our Biblical text. Talmon argues that these seasons can be grouped during the Biblical period into four broader seasonal divisions. He brings three proof texts from the Bible to argue his case.

⁶⁶ Cassuto, p.219. Cassuto disputes this conclusion made by McAlister. Cassuto points out that if the names on the tablet were in use among the farmers of Judah, they would have been reflected in those Biblical passages where suitable opportunity occurred to mention them. I believe that the names are found in the Biblical text as is noted in the chart found in the Appendix.

⁶⁷ Talmon, *King, Cult and Calendar...*, p.120.

1) I Kings 5:27-28. Solomon's system of taxation involved 30,000 men, divided into shifts of 10,000, serving the army in Lebanon for a period of four months each year. Men served one month in Lebanon and then had two months at home. The men worked for one month each season, so that they could also tend to the seasonal requirements of their farms at home.⁶⁸

2) Judges 11:40. Following the death of Jephtha's daughter it became the custom of the maidens in Israel to practice certain mourning rites for four days each year. This chanting of dirges can be understood to have taken place for one day during each quarter of the year.⁶⁹

3) Amos 7:1-8:1. "In the cluster of four oracles, each of which is introduced by בַּה הָרִאֲנִי (7:1,4,7; 8:1) the individual prophetic utterances obviously are arranged in accordance with the progress of the agricultural seasons to which the prophet alludes..."⁷⁰ The visions begin with the season of late growth (fall), immediately after the first harvest, and extends into the rainy season (winter). The second vision focuses on the nearly ripened barley (spring) and the threat of fire during this season. The final vision is of summer fruits, of ripened figs which typify this final season of the agricultural year (summer).

In contrast to Talmon, North argues that the ancient Biblical community focused on a three season year, with each season comprising four months. He believes,

that for the farmer, the year falls naturally into three parts, seedtime, threshing time and vintage (Lev. 26:5 and Am. 9:13). Generally speaking seedtime begins in December, Threshing-time in April and vintage in August, so the agricultural year actually comprises three seasons, each of which last approximately four months.⁷¹

⁶⁸ Talmon, *King, Cult and Calendar...*, p.101. See chart on page 102 of Talmon's work for details of this division.

⁶⁹ Talmon, *King, Cult and Calendar...*, p.101.

⁷⁰ Talmon, *King, Cult and Calendar...*, p.103-104.

⁷¹ North, p.447.

He builds his argument on the Biblical text of Judges 19:2. He argues grammatically that the word יָמִים is used in many places throughout the bible to indicate "season" and that based on this text from Judges, a season is a four month period. In keeping with this line of understanding, North translates Genesis 1:14 in the following manner, "Let there be lights in the expanse of the sky to separate day from night, they shall serve as signs both for festivals and for seasons and for years."⁷²

While there is Biblical proof for North's three season theory of agricultural life in the Biblical period, he overlooks what may be the most compelling evidence for the three season rather than four season agricultural system. The Israelites developed a practice of harvest oriented festivals which took place three times during the year. The holidays of Sukkot (the fall harvest of olives, grapes and dates), Pesach (the spring harvest of wheat) and Shavuot (the early summer barley harvest) have ancient origins and could very well reflect this three stage natural agricultural cycle. It is interesting to note that this three season theory also reflects the earliest stage of the ancient Egyptian calendar.

An eight season calendar is supported by Yeivin in accordance with his reconstruction of the zodiac mosaic at Bet Alfa. Based on the division of the year into eight agricultural periods,

he conjectures that there existed in the Land of Israel a tradition that divided the agricultural year in this form...a tradition that endured for centuries and was reflected in these two monuments, separated from each other by an interval of more than a thousand years...⁷³

Whether the ancient Israelites ascribed to an eight, four or three season calendar is still open to dispute. What is clear is that the ancient Israelites ascribed to a calendar that was defined by the agricultural occurrences of their society. The Israelite calendar,

⁷² Contrast this with NJPS translation of Gen. 1:14, "...they shall serve as signs for the set times—the days and the years...".

⁷³ Cassuto, p.222. Cassuto rejects this theory as being too hypothetical and based on conjecture, but I think it may have some merit in perpetuating the centrality of agriculture in the development of the calendar.

as evidenced in the Gezer Calendar, and later through Biblical texts, reflects the intimate relationship that the people had with the land in which they lived. They measured their basic units of time, seasons and months, not on abstract numbers and calculations but on the reality of the natural environment in which they lived.

The Calendars of Monarchies

While the reigns of David and Solomon were unifying experiences for the Israelites, the division of the kingdom in 922 BCE was an event that was just the opposite. Within this divisive split, the calendar became a tool of manipulation and power for the various monarchs.

Jeroboam I enacted certain calendar reforms⁷⁴ which were influential in determining the separation of the North and the South on religious and social matters.

The Old Testament evidently attributes to Jeroboam manipulation of the calendar. In order to upset synchronization of cultic and therefore public life in Ephraim and Judah he did not even stop short of the deferment of the Feast of Tabernacles by one whole month...⁷⁵

While his motives were political, it appears that the people may have welcomed this change and readily accepted it. Because of the climatic differences in the Northern and Southern regions, the festivals of the Israelites during the time of David and Solomon did not always correspond to what was happening in their fields.

In fact, in the heartland of the Kingdom of Israel, in the mountains of Ephraim, fruit ripens later than in most regions in the Kingdom of Judah. King Yerovam took advantage of this when he ordered the Festival of the Ingathering, Sukkot, to be celebrated in the city of Beth-El in the Kingdom of Israel, not on the date commanded in the Bible (the fifteenth day of the seventh month) but on the

⁷⁴ These reforms are recorded in I Kings 12.

⁷⁵ Talmon, King, Cult and Calendar..., p. 119.

fifteenth day of the eighth month, in the month he had devised of his own heart...⁷⁶

The changes made by Jeroboam for the Ephraimites meant that once again their agricultural festivals fell at the time which corresponded with their harvests.

Without giving regard to the political machinations involved, though not unaware of them, the Ephraimite peasant acclaimed the change which brought the cultic festivals again into focus with the agricultural seasons.⁷⁷

But at the same time, this change was divisive for the Israelites as a whole people. Those in the North found themselves celebrating the festivals in accordance with Jeroboam's new calendar a full month later than the same festivals were celebrated in the Southern Kingdom. Jeroboam's changes in the date of the Feast of Tabernacles from the seventh month to the eighth month, and the acceptance of such a change on behalf of the people, indicates the central nature of agriculture and the natural world in determining the calendar.

Until the fall of the Northern Kingdom in 722 BCE, the North and the South upheld independent cultic calendars. During the reign of Hezekiah (715-687 BCE), the two territories were reunited and an agreement had to be reached with the Ephraimites inducing them to accept Jerusalem as the religious center and as the capital of the nation. As part of this reconciliation between the North and the South it was essential to restore the synchronization of the calendar reckoning in order to coordinate the march of events in the lives of the two populations.

According to the Biblical narrative,⁷⁸ Hezekiah requests that the Ephraimites come to Jerusalem for Passover one month earlier than they were accustomed to celebrating it, since Jeroboam had decreed it to be celebrated in the 8th rather than the 7th month. The Ephraimites, of course, refused to come to Jerusalem at this time

⁷⁶ Hareuveni, p. 68.

⁷⁷ Talmon, King, Cult and Calendar, p. 122.

⁷⁸ Chronicles 30:1ff.

because they considered it too early according to their official calendar and according to their crops. Hezekiah felt it was imperative that Jerusalem be reestablished as the center of the kingdom. In order to accommodate the Ephraimites, he deferred the festival to be in accordance with the Northern kingdom and everyone came at this later date to celebrate the harvest in Jerusalem.⁷⁹

When King Josiah came to power (640-609 BCE), the supremacy of Jerusalem was no longer contested between the Northern and Southern populations. He was able to impose the Judean calendar on the remnants of the Ephraimite people. This was a unique and significant event.

The novelty here referred to is the reenforcement of a calendar common to Judah and to Ephraim and the reestablishment of Jerusalem as the national center of worship—two features which had never coincided during the period of the divided kingdom.⁸⁰

Josiah felt that he had to make amends for Jeroboam's wrongs and reunite the people with Jerusalem and a common calendar. He wanted to return to the past and pick up the unified place where Solomon had left off years earlier. He succeeded in doing this, and, according to the Biblical tradition, the festival celebrations that took place during his rule were great beyond compare and involved all the people of his kingdom.⁸¹

In the midst of all of this political unrest and calendar manipulation, one idea clearly emerges. To control the calendar is to dictate the political, religious, social and economic lives of the people. During Stage II because the Israelites were an agriculturally based people it was vital to them that their calendar correspond with the events of nature which were taking place in their fields. Thus, despite all of the political

⁷⁹ Talmon goes on to point out, "At the time of Hezekiah's Passover, the Northern calendar prevailed over the Southern time reckoning. But it is probable that this was a solitary occurrence. Hezekiah's plan did not materialize and it seems that eventually he reverted to the Judean calendar while the Northern tribes kept to their own system of time-reckoning." page 127, King, Cult and Calendar...

⁸⁰ Talmon, King, Cult and Calendar... p. 128.

⁸¹ || Kings 23:22-23 and || Chronicles 35:17-19.

and changes made by the various monarchs, agricultural and natural cycles played the dominant role in determining the Hebrew calendar during Stage II of the Biblical period.

The Babylonian Calendars

While the calendar of Israel during this period of time (1000-586 BCE), was constantly being manipulated by monarchs for political purposes, the luni-solar calendar was undergoing significant developments in Babylonia. While the Israelites at this time did not adopt this calendar in all of its details until later, the Babylonian calendar greatly influenced the Israelite calendar as it was taking shape during this time period.

The Babylonian Calendar underwent three stages of development according to Wacholder and Weisberg.⁸² They explain,

...we find it difficult to believe that the discovery of the equivalence of 235 lunar months with 19 solar years and its implementation into the calendar were a sudden development. It is probable that centuries of experimentation led to this remarkable discovery and that more time passed before Babylonian astronomers felt confident enough to convince the king that a permanent calendar was practicable...⁸³

Calendar reckoning in these early times, when it was based on the cycles of the sun and the moon, took a long time to determine.⁸⁴ Careful records of observations had to be kept for many generations in order to determine the actual patterns of the heavens. During Stage I (747-634 BCE) there was no predictable pattern of intercalation within the

⁸² Wacholder and Weisberg, p.68.

⁸³ Wacholder and Weisberg, p.68.

⁸⁴ Neugebauer, *Exact Sciences in Antiquity*, explains, "The fundamental problem of the Babylonian lunar theory is determined by the calendar. So far as we know, the Babylonian calendar was at all periods truly lunar, that is to say, the 'month' began with the evening when the new crescent was for the first time visible shortly after sunset. Consequently, the Babylonian 'day' also begins in the evening and the 'first' of a month is the day of the first visibility. In this way the beginning of a month is made dependent upon a natural phenomenon which is amenable to direct observation. This is certainly a very simple and natural definition, as simple as the concurrent definition of the 'day' as the time from one sunset to the next. But as is often the case, a 'natural' definition leads to exceedingly complicated problems as soon as one wished to predict it's consequences. This fact is drastically demonstrated in the case of the lunar months." p. 106.

Babylonian luni-solar calendar. With Stage II, (633-482 BCE) experimentation with intercalation began to take place. Astronomers experimented with intercalating 7 months in a 19 year period in order to keep a balance between the solar years and the lunar months. And finally during Stage III (481-71 CE), the Babylonian Calendar took on its final form. It had a predictable pattern of intercalation of the month of Addaru 7 times within in a 19 year cycle.⁸⁵

The accuracy of this determination provided an important step in the development of the calendar throughout the Ancient Near East.

The achievement of the ancient Babylonian astronomers in devising the 19 year cycle with its seven intercalated months was indeed remarkable...the difference between 235 lunar months and 19 solar years is only .086403 day or 2 hours, 4 minutes, 25,22 seconds. This is how close the ancient Babylonian system came to solving the problem of the relationship between the lunar year and the the solar year.⁸⁶

The developments in Babylonia ultimately had a deep and lasting impact on the Hebrew calendar, but this happened slowly over a long period of time.

It seems almost certain that the same antagonism as manifested itself toward designations linked to alien religious concepts and rites hindered, and for a long time even prevented, the introduction of the Babylonian names...⁸⁷

The Israelites were struggling to assert their own identity, religiously and socially and thus they wanted their institutions (including the calendar) to reflect their own belief systems. The Babylonian calendars were very influential but only when adapted and incorporated with the agriculturally based Israelite calendar of the Biblical period.

⁸⁵ Wacholder and Weisberg, p.68.

⁸⁶ Finegan, p.31.

⁸⁷ Cassuto, p.225.

Stage III: Calendars of Transition

Stage III of the Hebrew calendar became concretized when the Jews returned to Eretz Yisrael in 538 BCE following the Exile in Babylonia. While the Babylonians had slightly influenced the Hebrew calendar during Stage II, the years spent in Babylonia had a deep and lasting influence on the cultural and religious practices of the Jews. The advancement of calendar determination in Babylonia had been great during the years the Jews were in Exile, and the Jews brought these developments back with them to Eretz Yisrael.

The Jews brought back to Eretz Yisrael not only the 19 year intercalary cycle and the intercalation of Addaru but also the month names. The following chart lists both the Babylonian and Hebrew month names beginning in the spring time.⁶⁸

Babylonian	Hebrew
Nisanu	Nisan
Aiaru	Iyyar
Simanu	Sivan
Duzu	Tammuz
Abu	Ab
Ululu	Elul
Tashritu	Tishri
Avahasamnu	Heshvan
Kislimu	Kislev
Tebetu	Tebeth
Shabatu	Shebat
Addaru	Adar

Prior to using these month names the Israelites referred to their months by ordinal numbers, and before those, by their Canaanite names. The Canaanite month names were linked to Canaanite religious practices and beliefs. As the Israelites became unified around their own religious beliefs and observances, they sought to move away from this system of reckoning time. By replacing the Canaanite month names with

⁶⁸ Parker and Dubberstein, p.24.

ordinal numbers, the months were dissociated from a religious tradition and the system of reckoning was more in keeping with the new monotheistic views of the Israelites.

The transition between the Canaanite names and the ordinal numbers probably took place during Stage II of the development of the Hebrew Calendar.

When the Gezer Calendar was written... the trend to abolish the use of Canaanite names for the months had not yet prevailed. Without doubt the opposition that ended at a later point in the triumph of this trend and in the introduction of the ordinal numbers was also alive... Before the numerical method prevailed, other experiments were possibly made in this direction. The practice of designating months according to the agricultural tasks that were customarily performed in each of them undoubtedly arose spontaneously in a society that had already become essentially agricultural...⁸⁹

The names of the months are changed again in Stage III. At first, they are referred to by both their ordinal number and the corresponding new Babylonian name. Later in this same stage, they came to be known only by their Babylonian influenced names.

When the Jews returned to Zion after the Babylonian Exile toward the end of the sixth century BCE, they brought back with them the Babylonian names for the months of the year, and these gradually displaced the numerical system... This development is reflected in Scriptures that derive from post-exilic times seven of the twelve Babylonian names appear often glossed by a note giving the numerical equivalent based on the spring New Year...⁹⁰

This stage of development in the Hebrew calendar encompasses two of the three Calendars outlined by Morganstern. He determined that the Israelites of the Biblical period had three calendars which developed one from the other. Calendar I was used

⁸⁹ Cassuto, p.225-226.

⁹⁰ Sarna, p.84. Examples of the blending of the two systems are common in Esther. See Esther 2:16, 3:17, 13.

prior to the destruction of the Temple. Calendars II and III were in use following the destruction and prior to the second century CE.

According to Morganstern, Calendar I was a solar calendar, building its festivals and rituals around the equinox. It was most likely divided into twelve smaller units of thirty days each, reflecting the constellations of the zodiac. It is also likely that, at this stage, the calendar underwent some sort of fairly frequent intercalation to regulate the constant discrepancy.⁹¹ But it must be emphasized that at this early date (prior to 621 BCE), the calendar of the ancient Israelites was based upon observation of regular natural phenomena, the sun, the moon and the stars. Their calendar was not based on scientific or calculated conclusions, and it reflected the irregularity of crops and harvests as well.

The transition between Calendar I and Calendar II was "purposed, sudden and complete, [it was] no doubt made possible by royal fiat..."⁹² Calendar II of the Israelites, was a luni-solar calendar based upon Assyro-Babylonian models. Months in this calendar were designated by number, and there are indications that there must have been some sort of system for intercalation.

Calendar II was introduced in Palestine some time between the years of 608 and 586 BCE for three reasons: 1) There was a strong influence of Babylonian culture on the life and religious practice of Israel during the seventh and sixth centuries; 2) There was a desire on the part of the leaders of the Deuteronomic Reform to rid Israel of non-YHVH, Canaanite religious practices and institutions, especially those surrounding agricultural festivals (equinox and solstice); 3) There was a necessity, after the centralization of Jerusalem to have "a unified, nationalized calendar, officially authoritative and uniformly observed throughout the entire land; for only with such a nationalized and invariable

⁹¹ Morganstern (1924), p. 65.

⁹² Morganstern (1935), p.6.

calendar could the observance of the three annual pilgrimage festivals...be made possible,"⁹³

Calendar III evolved slowly from Calendar II and was in use by the end of the 4th century BCE. It too was luni-solar in character but had a more exact system of intercalation. This fixed system of intercalation developed out of the need to fix new and full moon moments and festivals. Calendar III is distinct in that it uses adaptations of Babylonian month names. For a long time, both the numbers and the names were used and then ultimately the names endured. This transition most likely took place after the time of Ezra and Nehemiah.⁹⁴

In contrast to Morganstern, Konig developed a theory which articulates two phases of calendar development in ancient Israel. The first was a solar calendar. It was identical to that of the Phoenicians and the Canaanite predecessors of Israel in Palestine and was well adapted to simple agricultural life. In the scheme of this calendar, day began at sunrise and the year began in the fall. This calendar used Canaanite-Phoenician names for months which were thirty days long each.

The second calendar of Israel in the Biblical period according to Konig was a luni-solar calendar. It was based on lunar months and necessitated a greater knowledge of the moon. It also required intercalation for harmony with the solar calendar. Months were designated by ordinal numbers and then later by Babylonian names. Days were reckoned by sunset, and the day of the full moon came to be important. All of this took place around the year 600 BCE.⁹⁵

Stage III in the development of the Hebrew calendar is significant since it is the culmination of a process. During Stage III the calendar is standardized regarding month names and intercalation. Within the standardization, traditions which had developed

⁹³ Morganstern (1935), p.6.

⁹⁴ Morganstern (1935), p.8.

⁹⁵ This summary of Konig's theory was derived from Morganstern (1935), pp.2-3.

throughout the period were preserved. The months continued to be measured in accordance with the new moon, and the year is oriented to celebrating the festivals at their appropriate agricultural seasons, beginning with Aviv. These features which developed slowly in the Biblical period have for the most part been maintained in the Hebrew calendar as it exists today. While the shape of the calendar changed, "the memory of and regard for Calendar I [the earliest calendar] did not completely die out in Israel"⁹⁶. The centrality of agricultural life as it existed during the Biblical period has been preserved within the timeless institution of the Hebrew calendar.

⁹⁶ Morgenstern (1924), p.65.

Chapter II

CALENDAR DEVELOPMENT IN THE RABBINIC PERIOD

CALENDAR DETERMINATION AS RECORDED IN THE MISHNAH

Following the periods of the Monarchies and Hellenism, during the Roman eras,¹ Jewish legislation and observance focused on the Temple in Jerusalem. The Aaronide priests administered the sacrifices, while Levitical guilds of musicians and Temple assistants staffed the complex of buildings and courtyards. Also convening in the area of the Temple in Jerusalem was the Sanhedrin, the supreme legislative-judicial assembly of the Jewish people. There is much uncertainty regarding the shape and function of this body. Scholars disagree as to the influence that the priests may or may not have exerted over this group. There is also disagreement as to the degree of authority the Sanhedrin could exert over diaspora communities and the influence the Judean king or Roman administrator played in the decisions the court made. Finally, there is dispute between scholars whether the Jewish courts decided issues on a per case basis, based on spontaneous interpretation of scripture, or if there was a systematic body of law to supplement biblical precedents.²

The Sanhedrin and the Calendar

The Sanhedrin met regularly in Jerusalem, and following the destruction of the Temple in the year 70 CE, it was reconvened under the leadership of Rabban Yochanan Ben Zakkai in Yavneh.³ Following the Hadrianic persecutions (117-138 CE), at the end

¹ Steinseltz, *The Reference Guide*, dates the Mishnaic period from 30 BCE to 200 CE during which Roman imperial power was at its height. The Talmudic period, from 200 CE-500 CE was a time in which Roman authority was shaken. p.11-12.

² Seltzer, p.215.

³ Steinseltz, *The Reference Guide*, explains, "After the destruction of the Temple, the Jewish High Court, (The Great Sanhedrin)—commonly referred to then as the Great Council' (בית הועד הגדול) since the Sanhedrin had ceased to operate with its full authority—became the recognized center of Jewish life..." p.13.

of the Bar Kochba Revolt (140s or 150s), the Sanhedrin reassembled in Galilee, where it was headed by Judah I (Nasi) from 170-217 CE. Between 225 and 255 CE, the Sanhedrin was moved to Tiberias due to economic, social and political difficulties that arose in the Roman Empire. In approximately the year 420, upon the death of Gamliel VI, the Sanhedrin was abolished by the Roman government.⁴

By the end of the first century, the Sanhedrin was established as the official leadership of the Jewish people. It was involved in the canonization of scripture⁵, the refinement of many prayers, and the determination of many ritual observances associated with the Temple. In addition, and most relevant to our discussion, "the Sanhedrin assumed supreme legislative and regulatory functions, such as the right to control the date of the New Year and the leap months..."⁶

This was no easy task. Calendar regulation, in the period of the Sanhedrin, involved a detailed procedure for determining the beginning of each month in accordance with the first sighting of a new moon and the ritual sanctification of the day on which it was seen. There are also indications that some sages were knowledgeable in the techniques of mathematically calculating the calendar using the system developed in Babylonia. The Sanhedrin was further involved regulating the yearly calendar so the festival celebrations fell at the correct season, thereby maintaining the observance of Pesach in Aviv.⁷ This often called for intercalation, the procedure in which a month is

⁴ This dating is taken from Robert Seltzer's charts pp. 166-170.

⁵ Leiman disagrees with this opinion concerning canonization. He argues, "The closing of the Biblical canon did not occur at Jamnia toward the end of the first century CE. Jewish sources such as the Apocrypha, Philo, and Josephus, as well as the Christian sources reflecting Jewish practice, such as the New Testament and the Church Fathers, support the notion of a closed canon in most Jewish circles throughout the first centuries before and after the Christian era...The Talmudic and Midrashic evidence is entirely consistent with a second century BC date for the closing of the Biblical canon." p. 135.

⁶ Seltzer, p. 247.

⁷ Bushwick argues that the calendar was determined month by month and year by year. He argues, according to most Rishonim and Achronim, that it was impossible during the time of the Sanhedrin to establish or publish a calendar. He does allow that there is a minority opinion held by Saadia Gaon, Rabbeinu Hananel and others that even in the time of the Sanhedrin a fixed calendar was followed. (Bushwick p. 52) It is my opinion, based on evidence discussed earlier and also based on the upcoming discussion of Talmudic

added to the year so the solar year coincides with the lunar months. To fulfill these important responsibilities, the Sanhedrin had two functions. They were responsible for,

the sanctification of the new moon day and the intercalation of the year. The new moon day still retained some of its original festival character, hence it was proclaimed with the formula מקודש "sanctified"; to the intercalated year however, no holy or festival character whatever was attached, hence there was no sanctification of the intercalated year. Consequently the talmudic sources, as a rule, speak of the sanctification of the new moon day as קידוש החדש and the intercalation of the year as עיבור החדש.⁸

Because this was such an important function in the life of the Jewish people, only the most important leaders had the authority to determine the calendar. Prior to the destruction of the Temple in Jerusalem,

The new month was proclaimed by the Nasi in conjunction with his court, and it was only with the support of the latter that he could proclaim a leap year. Originally this prerogative belonged to the Great Court in Jerusalem, but after 70 CE it was taken over by the Sanhedrin in Jabneh. In the absence of the Nasi the court was empowered to proclaim a leap year subject to his approval, although the Nasi was free to appoint an agent on his behalf...⁹

materials, that some form of fixed calendar was in use during the time of the Sanhedrin but ritual observance, sanctification and intercalation were still maintained.

⁸ Genz (39) p. 263. Steinsaltz distinguishes between these two technical terms.

"קידוש החדש *Sanctification of the month*. The judicial discussion and the declaration issued by the authorized Rabbinical Court announcing the beginning of a new month...Opinions are divided among the Tannaim as to whether only a new moon following a month of twenty-nine days (חדש חסר) had to be legally sanctified on the thirtieth day, or whether the new moon following a month of thirty days (חדש מלא) also had to be sanctified on the thirty-first day." p.252. "עיבור החדש *The addition of an extra day to a month*. The moon's monthly cycle is slightly more than twenty-nine-and-a-half days. In the Talmud, unless stated otherwise, a month is understood as having twenty-nine days. But it was, of course, frequently necessary to add an additional day to the month..." p.239.

⁹ Mantel p.179-181.

Mishnah Rosh Hashanah 1:1-3:1

As a Source for Calendar Determination by the Sanhedrin

Much of what we know about the Sanhedrin and their role in the determination of the calendar is based on Mishnah Rosh Hashanah, Chapters 1:1-3:1 and the accompanying passages from the Babylonian Talmud, Tractate Rosh Hashanah, pages 18a-26a. Before entering into a detailed analysis of these sources it is important to consider their validity as historical source materials for the period and subject being discussed. I will explore here the different opinions of Herbert Danby, Abraham Goldberg, Jacob Neusner and Ben Zion Wacholder.

As Danby explains,

It is a matter of extreme difficulty to decide what historical value we should attach to any tradition recorded in the Mishnah. The lapse of time may have served to obscure or distort memories of times so different...Moreover, there is much in the contents of the Mishnah that moves in an atmosphere of of academic discussion pursued for its own sake, with...little pretense at recording historical usage...On the other hand, this academic tendency sometimes shown by the Mishnah...is not necessarily such as wholly to discredit its picture of the fuller life of pre-destruction times...¹⁰

Danby begins to lay out the problem that confronts scholars today concerning the historical value of the Mishnah. Is it a document that represents the historical period in which it was written? Does it represent the historical periods prior to the time when it was finally edited? Is the Mishnah a document that depicts a plan for the ideal Messianic future? Contemporary scholarship indicates the Mishnah, as a historical document, answers all of these demands.

Danby upholds,

¹⁰ Danby, p.xv.

...The Mishnah bears no trace of a tendency to effect reforms in Jewish religious and ceremonial usage or to evolve a new scheme in closer accord with later conceptions of what the law required: on the contrary, it manifests a veneration for the letter of tradition remarkable for pedantic insistence on verbal exactitude...¹¹

For Goldberg, as for Danby, the Mishnah represents the historical experience prior to the destruction of the Temple. Its purpose was to preserve that style of Judaism for future generations.

...The aim was to preserve in a definite literary form the great spiritual heritage of the Second Temple Period, especially of its later generations. This heritage had been centered in great measure around the Temple ritual and worship...Since everything had to be saved and recorded for posterity, there was nothing in the late Second Temple ritual and Pharisaic teaching which escaped the attention of the Sages and their disciples who assembled at Yavneh for several generations...Yavneh, then, marks the beginning of the compilation of the Mishnah. This does not mean, however, that Mishnah-type material did not exist before then. Oral law teachings abounded in the late Second Temple days and some of the formulations may have come down to us unchanged...¹²

Neusner takes a somewhat different approach toward the historical value of the Mishnah. He does not believe it accurately represents the time in which it was written or the time prior to when it was written.¹³ He does believe that the Mishnah reflects an ideal reality that its editors hoped for in the future.

...The Mishnah stands in contrast with the world to which it speaks. Its message is one of small achievements and modest hope. It means to defy a world of large disorders

¹¹ Danby, p.xv.

¹² Goldberg, p.215.

¹³ Regarding the Talmud as a source for reliable historical information Neusner writes, "...we have no way of knowing how accurately the actual words of the rabbis were reported in the final recension...I can offer a general law for verifying the reliability of Talmudic materials, although my assumption is that legal dicta were actually stated by the rabbis to whom they are credited unless contrary evidence denies it." Neusner II p.xv of preface.

and immodest demands. The heirs of heroes¹⁴ build an unheroic folk in the new and ordinary age. The writing of survivors, the Mishnah is a document of imagination and fantasy, describing our of the shards and remnants of reality how things are, meaning how they are supposed to be, but in larger measure, building social being our of beams of hope. The Mishnah tells us a bit about how things were, but everything about how a small group of men wanted things to be...¹⁵

Wacholder takes this argument a step further. He upholds, based on his own time-frame hypothesis of the Mishnah, that it represents the historical past placed into a context for the future, the messianic world to come. He upholds that the Mishnah does not reflect the current practice at the time in which it was written, and thereby, can not serve as a historical document to understand this period of Jewish history.

To be sure, I grant that material of which the Mishnah was made up originated during the three or four centuries between the Maccabean Uprising in 170 BCE and 200 CE. However I would deny the validity of the corollary that the halakhic concern of the Sages...necessarily centered around then current problems. It seems to me that, as in the case of the Homeric epics, the authors and redactors of the Mishnah may well have intended to depict the life and norms of a bygone epoch...¹⁶

Wacholder argues that this preservation of the past was undertaken with the express purpose of it being used again in the future. "Rabbi Judah Hanasi reproduces that Halakhah which, as he saw it, governed Israel in the past and would do so again in the future..."¹⁷ Wacholder defines the purpose of the Mishnah in the following manner which does not allow it to be viewed as a historical document of the period in which it was written.

¹⁴ These heroes, personalities, will be discussed in regard to their contribution to the Hebrew Calendar later in this chapter.

¹⁵ Neusner, *The Mishnah* p.ix.

¹⁶ Wacholder, "Messianism and Mishnah..." p.7.

¹⁷ Wacholder, "Messianism and Mishnah..." p.34.

...Assuming this time-frame hypothesis, it might well follow that in compiling the Mishnah, which contains both *dinim* called *de-Orayyeta* and *de-Rabbanan*, Rabbi Judah Hanasi and his fellow redactors were in fact preparing, so to speak, a handbook for Elijah, who as chief courtier of the Messiah would be in charge of the punctilious observance of the Halakhah...¹⁸

My conclusion is that each of these theories concerning the historical merit of the Mishnah all have some validity. The Mishnah is based on reality. It may or may not be the reality of life in the first and second centuries, but it does describe aspects of the life of the Jewish community at a time prior to its redaction. The Mishnah is valuable to the study of the calendar because, while we can not determine with precise accuracy how the calendar was determined during this time period, we can sketch a picture of the rituals and practices that may have surrounded the determination of the calendar prior to and immediately following the destruction of the Second Temple. While the Mishnah does not provide historically accurate facts, it is still very useful, as a primary document, in discussing the history of the Hebrew calendar, because it does describe past practices and future hopes.

Based on my own interpretation of the information provided in the text of the Mishnah, the following seems to have occurred concerning the calendar during the period of the Sanhedrin: The Sanhedrin or a duly appointed court¹⁹ would meet at the specified location. Jews from all over Eretz Yisrael would regularly observe the heavens and watch for the appearance of the new crescent moon. Those who cited the new moon would then travel to the meeting place of the court and serve as witnesses concerning the appearance of the new moon. The court would question the witnesses to determine if the individual was an acceptable witness. If he was considered acceptable,

¹⁸ Wacholder, "Messianism and Mishnah...", p.10.

¹⁹ Quint argues that evidence to determine the new month was heard by a *Beit Din*, a court of three selected by the Great Sanhedrin, while the intercalation of the year required seven judges from the Great Sanhedrin. pp.70-73.

he was further questioned to determine the validity of his evidence. Upon determining that the new moon had been cited in the proper place at the appropriate time, the court publicly declared the new month and word was sent, by means of beacons and then by messengers, to outlying and diaspora communities.

The determination and communication of the calendar was central to the unity of the Israelite community which was now spread throughout a vast territory stretching from Jerusalem into Babylonia²⁰. The method by which this took place is known to us today from the texts of the Mishnah and the Talmud, which, it must be remembered were not written to reflect a historical reality but rather to record what may have been common practice, but more importantly, what was hoped for in the future.

Analysis of Mishnaic Material

Having discussed the historical value of the Mishnaic texts, it is now possible to explore them for details of the procedures that took place surrounding the determination of the Hebrew calendar. Calendar reckoning as described in the Mishnah involved both observation and calculation. It included details and exacting regulations for witnesses, for the presentation of evidence, as well as specific procedures for proclamation and communication of the start of the month. As was previously discussed, the Biblical period involved the initial transition from a calendar based solely on observation to a calendar that involved exploratory calculation. The material of the Mishnah describes in detail this transitional stage in the history of Hebrew Calendar. It depicts a time when

²⁰ Communication about the calendar in the Rabbinic Period took place between Palestine and Babylonia and seemingly not between Palestine and the other Diaspora communities. Ben Zion Wacholder has indicated that in Rabbinic Literature the word "Golah" refers specifically to "Mesopotamia". Alon disagrees with this determination, and regarding the absence of reference to the lands to the south, the west and especially Alexandria he writes, "...some scholars... suggest that the Jews of Egypt did not depend in calendrical matters on the decisions of the Jerusalem Sanhedrin, but managed these things in their own way. However, the suggestion is unconvincing. It is based entirely on *argumentum e silentio*, which proves nothing. Nor are there any other grounds for the assumption. Besides, we have proof that the Jews of Alexandria *did* accept direction from the Old Country when it came to 'the order of the festivals' [Yer. Eruv. III 21c]." p.237.

people were still observing the patterns of the heavens to determine the calendar, while they were also fine tuning their abilities to insure accurate calculation. The practice of observing the phases of the moon and of being familiar with its pattern of waxing and waning, as it did for the people of the Biblical period, brought the people of the Mishnaic period into direct contact with the naturally occurring cycles of the world and to an awareness of God, the Creator of these phenomena. Calendar determination, as we experience it today, is based on pure calculation and has distanced us from the ever renewing cycle of the moon. This distance is evidenced as well in our remote relationship from many natural cycles and from God, the Creator of these natural wonders. It is hoped that by an exploration of calendar determination in the Mishnah we can reclaim the intimacy that once existed between our people, the natural world, and God.

The Mishnaic material concerning the determination of the calendar can be divided into four categories: 1) **Witnesses**. This material focuses primarily on the mitzvah²¹ that was fulfilled by being a witness to the new moon before the court. It also discusses the eligibility requirements for being a witness; 2) **Evidence**. This material outlines the court's procedure for questioning the witnesses in order to acquire the needed evidence concerning the citation of the new moon. It also describes the supplementary charts that were used in this procedure; 3) **Proclamation**. This material includes the formulaic declaration by the court and the people which marked the beginning of the new month. It also includes a discussion of the issues concerning the actual timing of that declaration; 4) **Communication**. This material discusses the early system of communication between communities with flaming beacons; how they were made and used as well as their locations and their path from hill to hill. This material also discusses the later system of messengers used to announce the beginning of the

²¹ A mitzvah is more than a good deed, it is a commandment, an obligation.

new month. It includes the details outlining when they were allowed to travel and permits them to travel on Shabbat.

Witnesses

According to the Mishnah, determination of the new moon, and thus the months, was based primarily upon the testimony given by witnesses before a court appointed by the Sanhedrin. It was considered not only an honor to be a witness to the new moon, it was more importantly, a mitzvah. The court tried to encourage people to fulfill this mitzvah by urging them to watch for the new crescent moon and then travel to the seat of the court to offer their citation as evidence. In the following section of text, Rabbi Akiba is chastised by Rabban Gamliel for detaining witnesses from traveling to give their testimony.

מַעֲסָה שֶׁעָבְרוּ יוֹתֵר מֵאַרְבָּעִים
יּוֹגֵי יוֹעֲבָבֵן רַבִּי עֲקִיבָא יְבָלוֹד.
שָׁלַח יְלוֹ יֶרֶבֶן גַּמְלִיאֵל. אִם מַעֲבָב
אֶתְּהָ אֶת־הַרְבֵּים. גַּמְצָאֲתָ
מִכְשִׁילָן יִלְעָתִיד לְבֹא.

It once happened that more than forty pairs (of witnesses who had seen the new moon) passed through, but R. Akiba detained them in Lydda. Rabban Gamliel sent to him (this message), 'If you detain the many, you may lead them astray in the future.' (Potential witnesses may in the future not come forward to volunteer in this mitzvah seeing that others were prevented from accomplishing their self set task.)²²

In addition to urging individuals to volunteer to fulfill this mitzvah, the court made a special effort to care for those who came to fulfill this mitzvah. Comforts were provided and a "reward" was given as a sort of incentive for being a witness to the new moon.

²² Mishnah RH 1:6.

חָצֵר גְּדוּלָה הָיְתָה בִּירוּשָׁלַיִם וּבֵית
 יַעֲזֵק הָיְתָה נִקְרָאתָ. וְלָקָם כָּל־
 הַעֲדוּיִם מִתְכַּנְּסִים, וּבֵית דִּין
 בּוֹדְקֵן אוֹתָם שָׁם. וּסְעוּדוֹת
 גְּדוּלוֹת עוֹשֵׂן לָהֶם, בְּשִׁבִיל שְׂיָהוּ
 רְגִילֵין לְבָא. בְּרֵאשׁוֹנָה, לֹא יֵהִיוּ
 חוּץ מִשָּׁם כָּל־יְהוּדִים; הַתְּקַן רַבֵּן
 גַּמְלִיאֵל הַגָּבוֹן שְׂיָהוּ מִהֶלְכֵךְ אֶלְפַיִם
 אַמָּה לְכָל־יְרֵיחַ.

There was a large courtyard in Jerusalem which was called Beth Yaazek, and there all the witnesses used to assemble, and there the court examined them. And they prepared big meals for them, so that they should acquire the habit of coming. Previously, they (the witnesses) might not move away from there all that day (if it was Shabbat), then Rabban Gamliel the Elder ordained that they might go two thousand cubits in any direction...²³

The court was so intent on encouraging people to fulfill this mitzvah that all witnesses had a chance to give testimony before the court, even if the first pair was deemed valid. The court did not want people to feel they had made the trip in vain.

וְכָל שְׂאֵר יִיְהוּדוֹת,
 שׁוֹאֲלִין אוֹתָם יִרְאֵשׁי דְבָרִים, לֹא
 שְׂהִיוּ צְרִיכִין יִלְהֵן, אֶלָּא כְּדֵי
 שְׂלֹא יִצְאוּ יִבְפָּחִי נַפְשׁ בְּשִׁבִיל
 שְׂיָהוּ רְגִילִים לְבָא.

...And as for all the other pairs, they asked them the important points, not because they required them, but in order that they should not depart disappointed and that they should acquire the habit to come.²⁴

Being a witness to the new moon was of such importance that the rabbis determined that one could even violate the observance of Shabbat in order to fulfill this mitzvah.²⁵ The following passage allows for an individual who has seen the new moon

²³ Mishnah RH 2:5

²⁴ Mishnah RH 2:6 (second half)

²⁵ While Shabbat is not mentioned explicitly in the opening of this passage, based on the later mention of permission to profane the Shabbat, it is understood by both Blackman and Danby to be the topic of discussion at the beginning of the passage as well as the end.

to travel by ass, to be carried, and to carry with him both a weapon and food for the journey. All of these actions are seen to be violations of Shabbat but are allowed in the case of an individual who will serve as a witness to the new moon. The purpose of this is to reinforce the importance of fulfilling the mitzvah.

<p>שְׁעַל יִמְהַלֵּךְ לַיְלָה יָנוּם, מִחֻלְלֵךְ אֶת־הַשָּׁבֶת וְיוֹצֵאֵךְ לְעֵדוּת הַחֹדֶשׁ. יִשְׁנֹאמְרֵךְ, אֵלֶּה מוֹעֲדֵי ה' אֲשֶׁר תִּקְרְאוּ אוֹתָם בְּמוֹעֲדֵם.</p>	<p>מִי שֶׁרָאָה אֶת־הַחֹדֶשׁ וְאֵינוֹ יָכוֹל לְהֵלֵךְ, מוֹלִיכֵךְ אוֹתוֹ עַל־הַחֲמֹר אֲפִילוֹ יִבְמַסָּה; וְאִם יִצוּדָה לָהֶם, לוֹקְחֵיךְ בְּיָדָם מִקְלוֹת. וְאִם הָיְתָה דֶּרֶךְ רְחוּקָה, לוֹקְחֵיךְ בְּיָדָם מִזֹּנוֹת.</p>
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If one see the New Moon and is not able to walk, they bring him on an ass or even on a litter; and if any lie in wait for them, they may take sticks in their hands. If the journey be a long one, they may carry food in their hands, because for a journey lasting a night and a day they may profane the Sabbath and go forth to give evidence about the new moon, as it is said, *These are the appointed seasons of the Eternal which you shall proclaim at their appointed season.*²⁶

From this passage we can understand the importance of the mitzvah of being a witness to the new moon. Based on the Mishnaic understanding of the biblical citation, "These are the appointed seasons of the Eternal which you shall proclaim in their appointed season"²⁷, it was crucial that the months be determined on time, despite all other circumstances including Shabbat.²⁸

While everyone was encouraged to fulfill this important mitzvah, there were eligibility requirements to be a witness...

²⁶ Mishnah RH 1:9

²⁷ Leviticus 23:4. Also similar to Leviticus 23:37 and 23:2.

²⁸ Blackman, "The term, מוֹעֵד-*appointed time, season* in connection with a commandment is understood to imply that this commandment has to be performed at that time in all circumstances including the Sabbath..." p,387.

אב ובנו שראו את-החדש יילכו.
לא כמצטרפין זה עם זה, אלא
כאם יפסל אחד מהן יצטרף
נשני עם יאחר. רבי שמעון
אומר, אב ובנו וכל הקרובין
בשרין לעדות החדש. יאמר רבי
חסי, מעשה בטוביה הרופא שראה
את-החדש בירושלים, הוא ובנו
ועבדו משתתף; וקבלו יחלקים
אותו ואת-בנו, ופסלו את-יעבדו;
וכשבאו לפני בית דין קבלו אותו
ואת-עבדו ופסלו את-בנו.

If a father and his son saw the New Moon both should go, not that they can be paired together, but in order that if one of them become ineligible, the second one may be included with another. R. Simon says, A father and his son and all of near kin are eligible to give evidence about the New Moon. R. Jose said, it once happened that Tobiah the Physician saw the new moon in Jerusalem, he himself, and his son, and his freed slave; the priests accepted him and his son, but pronounced his slave ineligible but when they came before the Court they accepted him and his slave but declared his son ineligible.²⁹

In most cases near relatives can not in a court of law give evidence together. However, in the case of a father and son serving as witnesses to the new moon, they are allowed to give testimony together. This is based on the Mishnaic understanding of Exodus 12:1-2³⁰ where the fixing of the new moon is handed over to Moses and Aaron even though they were brothers.³¹

In addition to defining the blood relationships of those who can serve as witnesses to the new moon, the Mishnah defines the behavior of those who may serve as witnesses. To be an acceptable witness one must be upright and honest in daily and ritual life.

²⁹ Mishnah RH 1:7

³⁰ "The Lord said to Moses and Aaron...This month shall mark for you the beginning of months..."

³¹ Blackman p.386.

אלו הן יתפסולין, יהמשחק
 בקובקא, יומלך ברבית, יומפריחי
 יונים, וסוחר ישביעת, בעבדים.
 זה יתפלל, כל-עדות שאין האשה
 בשרה ילה, אף הן זאינן בשרים
 לה.

These are the ones who are ineligible: dice players, users, those who fly pigeons³², dealers in the produce of a Sabbatical year and slaves. This is a general principle: all evidence that a woman is not eligible to bring, these (types just mentioned) are also not eligible to bring.³³

While there were restrictions on the type of person who could serve as a witness to the new moon, individuals were strongly encouraged to fulfill this mitzvah in a regular and timely fashion. The nature of the mitzvah demands that a person watch the path of the moon in the sky, that the person be aware of its waxing and waning, and that he or she learn the pattern of the moon's twenty nine and a half day cycle. Being a witness to the new moon in the period of the Mishnah, required more than upright behavior. It demanded a sensitivity to the natural world and particularly an awareness of the heavenly realms.

Evidence³⁴

After having been accepted as a worthy witness, the individual was then asked a series of questions to help determine the accuracy of his evidence. These questions reflect the astronomical knowledge of the rabbis at the time of the codification of the Mishnah. "From the five mentioned queries and relevant criteria...one may reconstruct a

³² For a discussion about the use of pigeon flyers as witnesses see article by D. Weisberg, "Some Observations on Late Babylonian Texts and Rabbinic Literature." HUCA, XXXIX (1968).

³³ Mishnah RH 1:8

³⁴ Peter Obermark indicates that in the Ancient Near East and, in the period under discussion, there were two types of evidence. Dispositive Evidence is that in which a document is necessary for the legal transaction to be valid. Oral contracts are not considered binding. Evidentiary Evidence is that in which a document is drawn up, but it does not have to exist for the transaction to be valid. It is interesting that the evidence provided by the witnesses to the new moon was not written, it was oral, and was seen as binding.

fairly comprehensive and accurate lunar theory in vogue among Tannaim and Amoraim...³⁵

הָיָה נוֹטָה? וְכַמָּה הָיָה יִרְחָב? אִם
אָמַר, לִפְנֵי הַחֲמָה, לֹא אָמַר
יְכַלּוּם. וְאַחַר כֵּן הָיוּ מְכַוְּנִים
אֶת־הַשְּׁנִי וּבֹדְקֵן אוֹתוֹ. אִם
נִמְצְאוּ יִדְבְּרֵיהֶם יִמְכּוּנִים,
עֲדוּתָן קִיָּמָה.

בִּיצַד יְבֹדְקֵן אֶת־הָעֵדִים? וּג
שָׁבָא רֵאשֵׁן בֹּדְקֵן אוֹתוֹ רֵאשֵׁן
יִמְכַוְּנִין אֶת־הַגְּדוֹל שְׁבָהּ.
וְאוֹמְרִים לוֹ, אָמֹר בִּיצַד רָאִיתָ
אֶת־הַלְּבָנָה, לִפְנֵי הַחֲמָה אוֹ
לְאַחַר הַחֲמָה? לְצַפּוֹתָה אוֹ
לְדְרוֹמָה? כַּמָּה הָיָה יָגוּבָה? וְלֵאמֹר

How did they examine the witnesses?—The pair that arrived first they examined first. And they brought in the elder of the two and said to him, 'Relate how you saw the moon: in front of the sun or behind the sun? To the north of it or to the south of it? How high was it? And in what direction was it leaning? And how wide was it?' If he said, 'In front of the sun,' his statement was worth nothing. And then they brought in the second one and examined him. If their statements were found to agree, their evidence stood...³⁶

From this passage Wiesenberg determines a great deal about the knowledge of the witnesses and the examiners in regard to testimony about the new moon. He concludes the witnesses "were not credited with any astronomical knowledge worth mentioning; except for the presupposition of their ability to determine the mid-western point of the horizon."³⁷ He goes on to conclude, based on the questions asked to the witnesses that "The examiners were in the possession of the requisite astronomical knowledge for the calculation of the main elements in a lunar theory...and that the court

³⁵ Wiesenberg, p. 153.

³⁶ Mishnah RH 2:6

³⁷ Wiesenberg, p. 195.

checked their (the witnesses) trustworthiness by means of astronomical calculations...³⁸
 Based on the questions asked by the court, there is the indication that they were in possession of many elements of calendar calculation. According to Weisenberg, the questions indicate the examiners, mentioned in the Mishnah, were aware of "solar longitude and declination, and the lunar longitude and elongation, latitude and declination, and parallax."³⁹

Further evidence of the vast knowledge of the rabbis is evidenced in the diagrams that Rabban Gamliel is reputed to have made use of to aid the accuracy of the witnesses testimony. Rabban Gamliel would show the witnesses charts of the phases of the moon to help them to verify what they had actually seen in the night sky.⁴⁰

יגמליאל. ועוד באו שנים ואמרו.
 ראינוהו יבזמנו. יובליל עבורו
 לא נראה; ינקבלן רבן יגמליאל.
 אמר רבי דוסא בן הקינס, ייעדי
 שקר הן; היאך מעידים על
 האשה ישיגדה ולמחר כריסה
 בין ישיגיה? אמר לו רבי ייהושע.
 רואה אני את יידבריך.

דמות צורות לבנות היו לו לרבן
 גמליאל בטבלא ובכותל
 יבעלייתו. שבהן מראה את
 יההדיטות. יואמר, הקזה ראית.
 או קזה? מעשה שקאו שנים
 ואמרו, יראינוהו שחרית במזרח
 וערבית במערב. אמר רבי
 יוחנן בן גורי, עדי שקר הם.
 כשקאו יליבנה יקיבלן רבן

Rabban Gamliel had diagrams of the shapes of the moon on a tablet and on the wall in his upper chamber. These he used to show to the ordinary people, asking, 'Did you see it like this, or like that?' It once happened that two came and said, 'We saw it in the east in the morning and

³⁸ Weisenberg, p. 195.

³⁹ Weisenberg, p. 195. See also Feldman for explanations and descriptions of these terms within the context of the Rabbinic period.

⁴⁰ See Bushwick, pp. 38-40, for a graphic illustration of how the moon appears at various phases from earth.

in the west in the evening.' R. Johanan ben Nuri said, 'They are false witnesses.' But when they arrived at Jabneh Rabban Gamliel accepted them. And on another occasion two came and said, 'We saw it at its proper time,' but on the following 'added' night it could not be seen; yet Rabban Gamliel accepted them. R. Dosa ben Hyrcanus said, 'They are false witnesses; how can people say in evidence of a woman that she has been delivered (given birth to a child) if the following day her belly is between her teeth?' R. Joshua replied to him, 'I agree with you.'⁴¹

Evidence brought by the witnesses had to be specific and accurate. It had to define in human language the observable natural event of the cycle of the moon. Witnesses had to be able to describe what they saw, as well as where and when they saw it. In order to give accurate and worthy evidence one had to be aware of the phases of the moon as they appeared in the sky throughout the month. The need to provide evidence helped to maintain an intimate relationship between the people and the natural cycles of the moon. The court may have been able to calculate the appearance of the new moon, yet by mainting the institution of witnesses providing evidence of the appearance new moon, a relationship with the natural world was sustained.

Proclamation

Upon determining from the witnesses and their evidence that the new moon had been cited at its proper time and in its expected place in the sky, the court would officially declare the beginning of the new month.

ראש בית דין אומר, 'מקודש, וְכָל
הָעָם יַעֲוִינָן אַחֲרָיו. מְקֻדָּשׁ
'מְקֻדָּשׁ. בֵּין שְׁנֵי נְרָאָה יִבְרָמֵנוּ בֵּין
שְׁלֹא נְרָאָה יִבְרָמֵנוּ. מְקֻדָּשׁ אֹתוֹ.
רַבִּי יֶאֱלָעֵזֶר בְּרַבִּי צְדוּק אֹמֵר,
אִם לֹא נְרָאָה בְּרָמֵנוּ אֵין מְקֻדָּשׁ
אֹתוֹ שְׂכֵבֵר יִקְדָּשׁוּהוּ שְׁמַיִם.

⁴¹ Mishnah RH 2:8

The chief of the court says, 'It is hallowed!' and all the people answer after him, 'It is hallowed! It is hallowed!' They acclaim it as hallowed whether it appeared at its proper time or not. R. Eliezer b. Zadok says: If it did not appear at its proper time they need not acclaim it as hallowed, since Heaven has hallowed it already.⁴²

From this description in the Mishnah it can be surmised that this must have been a ceremony of great significance despite its brevity. One can readily imagine the court standing before a crowd of people, local inhabitants and visiting witnesses and announcing, "It (the new month) is sanctified!" The assembled people would then respond by twice repeating the proclamation of the court, "It is sanctified! It is sanctified!" The public proclamation was important because while calendar determination was officially in the power and jurisdiction of the court, in this way the people were drawn in and were involved in the ceremony of declaration.

Declaration of the new month had to take place during the day time hours in order for the appropriate sacrifices to be offered. Thus, if the court did not proclaim the month prior to nightfall the proclamation and consequently the beginning of the month was postponed to the next day. Simply seeing the new moon was not sufficient to determine the beginning of the new month. One had to hear the proclamation before the month could begin. This was an effective way to maintain unity in the vast community and also allowed the Sanhedrin to exercise its sole authority to determine the calendar. The responsibility and authority of the court in regard to the calendar was shared among all the members. No member had the ability to determine the new month independently of the others.

⁴² Mishnah RH 2:7 (Translation from the Danby Edition)

יִרְאוּהוּ בֵּית דִּין וְכָל יִשְׂרָאֵל.
 יִנְחָקוּהוּ הָעֵדִים, וְלֹא יִהְיֶה פִּיקוּ
 לֹזֵמֵר, מִקֹּדֶשׁ, עַד שְׁחִשְׁבָה, הַרְדִּי
 יִזָּה יִמְעוּבָר. יִרְאוּהוּ בֵּית דִּין,
 בְּלִבָּד יִיעֲמְדוּ שְׁנַיִם יִתְעִידוּ
 בְּפִגְיָהֶם וְיֹאמְרוּ, מִקֹּדֶשׁ מִקֹּדֶשׁ.
 רְאוּהוּ שְׁלֹשָׁה וְהֵן בֵּית דִּין, יִעֲמְדוּ
 הַשְּׁנַיִם וְיֹשִׁיבוּ מִחֲבָרֵיהֶם אֶצְלֵי
 יִתְחִיד, יִתְעִידוּ בְּפִגְיָהֶם, וְיֹאמְרוּ,
 מִקֹּדֶשׁ מִקֹּדֶשׁ, שְׁאִין הִתְחִיד גִּאֲמָן
 עַל יָדֵי יִיעֲמֹו.

If the court itself and all Israel had seen the witnessess had been examined, yet night fell before they could proclaim 'It is hallowed!' then it is an intercalated month. If the court alone saw it, two [of them] should stand up and bear witness before them, and then they may say 'It is hallowed! It is hallowed!' If it was seen by three who [themselves] make up the court, two [of [them] must stand up and set [two] of their fellows beside the single [other judge] and bear witness before them, and then they may say, 'It is hallowed! It is hallowed!' For no single person can be deemed trustworthy in himself.⁴³

Witnessing the new moon and bringing that evidence to the court was important, but the new month was not official until it was proclaimed by the court and affirmed by the people. This procedure was vital because while it underscored the importance of observation it maintained the unity of the calendar for all Jews by centering the power to declare the month with the court.

Communication

In the days long before FAX machines⁴⁴, telephones, telegraph and pony express, communication between distant places took place by means of signal fires on

⁴³ Mishnah RH 3: 1 (Translation from the Danby Edition)

⁴⁴ An interesting model could be developed in the modern day in which witnesses from around the world could draw pictures to serve as evidence of the new moon, FAX it to a central body meeting in Jerusalem who would then proclaim the new month and FAX back the declaration. For a discussion of modern day moon-watching see the studies being conducted by LeRoy E. Doggett at the US Naval Observatory, discussed in Chapter III.

hill tops. It was in this way that the proclamation of the new month was communicated to distant Jewish communities. The Mishnah records the materials used for these fires and how they were used to communicate from hilltop to hilltop, from community to community.

<p>הָאוֹר, וּמוֹלִיף וּמְבִיא וּמַעֲלָה וּמוֹרִיד, עַד שֶׁהוּא רוֹאֵה אֶת- יַחְבִּירוֹ שֶׁהוּא עוֹשֶׂה כֵּן בְּרֹאשׁ הַהָר הַשְּׂנִי, וְכֵן בְּרֹאשׁ הַהָר הַשְּׁלִישִׁי.</p>	<p>כִּיצַד הָיוּ מְשִׂאֵן מִטּוֹאוֹת. מְבִיאֵן כְּלוֹנִסָּאוֹת שֶׁל יָאֲרוֹ אַרוּכֵין, יֻקְנִים, תְּעִצֵי שֶׁמֶן, וְנִעוֹרֹת שֶׁל פֶּשֶׁתָן; וְכוּרֶף בְּמִשְׁיָהּ. יוֹעוֹלָה לְרֹאשׁ הַהָר וּמְצִית בְּהֵן אֶת-</p>
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In what manner did they kindle the beacons?—They used to bring long poles of cedar-wood, and rushes and pine-wood, and tow-flax; and a man tied these together with twine. He went up to the top of the hill and set them on fire, and waved them to and fro and moved them up and down until he saw his fellow doing likewise on the top of the next hill; and also similarly on the top of the third hill.⁴⁵

The Mishnah also records the locations where beacons were lit and the path that was followed to ensure that all the communities were informed of the beginning of the new month.⁴⁶

וּמֵאַיִן הָיוּ מְשִׂאֵן מִטּוֹאוֹת? מִהָר
יְהוֹשֻׁפָה יְלִסְרֵטָבָא, וּמִסְרֵטָבָא
יְלִגְרוֹפִינָא, וּמִגְרוֹפִינָא יְלַחְוֵרָן,
וּמִחְוֵרָן לְבֵית יְבִלְתִּין; וּמִבֵּית
בִּלְתִּין לֹא יָזוּ מִשָּׁם, אֶלָּא יְמוֹלִיף
וּמְבִיא וּמַעֲלָה וּמוֹרִיד, עַד שֶׁהוּא
רוֹאֵה כָּל-הַגּוֹלָה לְפָנָיו כְּמִדּוֹרֵת
יְהוֹשֻׁפָה.

And from where did they kindle the beacons?—From the Mount of Olives to Sartaba, and from Sartaba to Agrippina, and from Agrippina to Hauran, and from Hauran to Beth Baltin and from Beth Baltin they did not go, but waved to

⁴⁵ Mishnah RH 2:3

⁴⁶ See Appendix for a map of this path.

and fro and moved up and down, until he could see the whole of the diaspora before him like a mass of fire.⁴⁷

Methods of communication change over time, and the Mishnah records the transition from the use of signal fires to the use of messengers to convey this important information.

בְּרֵאשׁוֹנָה הָיָה מְשִׁאֵן יַמְשׂוּאוֹת.
יִמְשְׁקִלְקְלוּ יְהוֹכוֹתִים. יִהְיֶה יוֹצֵאִין.
שִׁיְהוּ שְׁלוֹחֵי יוֹצֵאִין.

Previously they used to light beacons, but after the Samaritans caused great harm they enacted that messengers should go forth.⁴⁸

Blackman explains, "in the time of R. Judah Hanasi (toward end of the second century), the Samaritans lit the beacons on the wrong night in order to mislead the Jews, because they were out to create difficulties for the latter to revenge themselves since they were treated not as part of the Jewish people but as aliens."⁴⁹ Albiruni⁵⁰ upholds that the Samaritans lighting signal fires to confuse the Jews had an even greater impact than simply causing the shift from signal fires to messengers. According to Albiruni, the false signal fires were the central factor in leading the rabbis to calculate the calendar rather than determine it on the basis of witnesses and declaration.⁵¹

⁴⁷ Mishnah RH 2:4

⁴⁸ Mishnah RH 2:2

⁴⁹ Blackman, p. 388.

⁵⁰ According to Obermann, p. xlii, this is the "earliest source in our possession for a critical, scientific study of the (calendar) system itself as well as its background. Wacholder and Weisberg, write, "The first clear exposition of the rabbinic standard 19 year cycle appears in the time of the historian Al-Biruni (973-1048) where we read it in his Chronology of Ancient Nations...", p. 71.

⁵¹ Albiruni, p. 67. Albiruni, in his continuing discussion about the shift in the Hebrew calendar from citation to calculation explains that not all Rabbanites agree that the change to calculation came about because of the Samaritan smoke signals. "...the scholars and priests of the Israelites, feeling convinced that their people would be scattered and dispersed in consequence of the last destruction of Jerusalem, as they thought, were afraid that their compatriots, being scattered all over the world, and solely relying on the appearance of the new moon, which of course in different countries would be different for them, might, on account of this, fall into dissensions, and a schism in their doctrine might take place. Therefore they invented these calculations..." p. 68.

Efficient and timely communication of the beginning of the months was central to proper observance of the festivals with the Hebrew calendar cycle. To ensure that fast days and celebrations would take place on the proper dates, messengers would travel to the various cities. For months which did not include a festival or fast, the messengers did not go out to announce the new month.

על שְׁשֶׁה יְחֻדָּשִׁים הַשְּׁלוּחִין יוֹצְאִין.	תְּקַנֵּת יְהוֹמְעֵדוֹת; עַל כִּסְלִיו, מִפְּנֵי
עַל נִסָּן, מִפְּנֵי יְהַפְסֵחַ; עַל אָב,	יְחֻנוּכָה; וְעַל אָדָר, מִפְּנֵי יְהַפּוּרִים.
מִפְּנֵי יְהַמְעִינֹת; עַל אֱלוּל, מִפְּנֵי	וּכְשֶׁהָיָה בֵּית הַמִּקְדָּשׁ קַיָּים, יוֹצְאִין
יֵרֵאשׁ הַשָּׁנָה; עַל תִּשְׂרִי, מִפְּנֵי	אֵף עַל אֵייר, מִפְּנֵי יַפְסֵחַ קָטָן.

On six months the messengers go forth: on Nissan because of Passover, on Ab because of the Fast, on Elul because of the New Year, on Tishri because of the determination of the Holydays, on Kislev because of the festival of Dedication, and on Adar because of Purim. And while the Temple still existed, they went forth also on Iyyar because of the Minor Passover.⁵²

Conveying this information was so important that messengers could even profane the Sabbath in order to announce the arrival of new month and thereby ensure that the holidays would be observed at their proper times.

עַל שְׁנֵי יְחֻדָּשִׁים יִמְחַלְלִין אֶת־
 יְהֻשְׁבֵּת עַל נִסָּן וְעַל תִּשְׂרִי, יִשְׁבְּהֶן
 הַשְּׁלוּחִין יוֹצְאִין לְסוּרְיָא, וּבְהֶן
 יִמְתְּקִינן אֶת יְהוֹמְעֵדוֹת. וּכְשֶׁהָיָה
 בֵּית הַמִּקְדָּשׁ קַיָּים, יִמְחַלְלִין אֵף
 עַל יֵיכוּלֵן מִפְּנֵי תְּקַנֵּת יֵי הַקָּרְבָּן.

Because of two months could they profane the Sabbath: because of Nisan and Tishri, for on them messengers went forth to Syria and by them the Holydays were determined. And when the Temple still stood, they could profane it

⁵² Mishnah RH 1:3.

indeed for all of them for the correct regulation of the offering.⁵³

A unified calendar ensured that all Jews would celebrate the festivals at their proper times. Timely celebration and observance was central to the precepts of Judaism and thus proper communication of the new month was essential. The transition from beacons to messengers and then ultimately to calculation alone reflects the continuing centrality of this principle. The method of communicating the calendar may have changed but its centrality as an institution in Judaism has been unchanged throughout the ages.

The Mishnah provides a wealth of information about the witnesses, their evidence, and the proclamation and communication of the new moon. This material, when evaluated in the appropriate historical context, can provide some insights to calendar determination in the Mishnaic period. From this material it is possible to determine that witnessing and providing evidence for the new moon was considered a mitzvah and was based on regular observation of the night sky. The procedure surrounding the sanctification of the new moon was one that was meant to involve the community while maintaining the central authority of the court. The Mishnaic material also indicates that the process of determining the new month and communicating that information was constantly changing. Despite the innovations, the centrality of observing a natural phenomenon and using them to measure time was maintained as the central factor in the vital institution of the calendar according to the Mishnah.

CALENDAR PERSONALITIES IN THE MISHNAH AND THE TALMUD

To understand calendar regulation and development in the Mishnaic and Talmudic period, the Mishnah paints a helpful portrait. It is also instructive to examine

⁵³ Mishnah RH 1:4

various scholars and sages who are recognized within the Talmudic literature as having an expertise in calendrical matters. The following portraits of: Rabban Gamliel the Elder, Yochanan ben Zakkai, Gamliel II, Rabbi Joshua, Judah Hanasi, Mar Samuel, and Hillel II, trace the developments of the Hebrew Calendar from the beginning of the first century CE until the middle of the third century CE.⁵⁴ These individuals have been chosen because they made significant contributions and their achievements are well documented in the Babylonian Talmud. They have also been included in discussions by Feldman⁵⁵, Brodetsky⁵⁶ and Obermann⁵⁷ as significant personalities who contributed to the development of the Hebrew calendar.

During this time period there were a number of issues around which discussion of the calendar focused. These issues had emerged earlier and continued to be ongoing dilemmas, but during this time period they become documented and focused. In examining the various personalities who were involved in calendar determination as described in the Babylonian Talmud these issues emerge. The important issues were:

- 1) The formal transition from citation to calculation of the new moon and the value of both systems.
- 2) The struggle to control the calendar as a means of asserting political power.
- 3) The influence of urbanization on an agriculturally based people and the subsequent distance that they developed from seasonal cycles.
- 4) The continuing impact of Babylonia's astronomical discoveries and theories.

⁵⁴ Every attempt has been made to accurately date the lifetimes of these individuals. In cases where the dates are available they have been included.

⁵⁵ Feldman includes a chapter in his book entitled, "Some Mathematical Celebrities of the Talmud". Highlighted in this chapter are, Yochanan b. Zakkai, Gamliel the Elder, Joshua b. Chananya, Mar Samuel, Eliezer the Great, Josi b. Chalafta, R. Nathan and Abaye.

⁵⁶ Brodetsky discusses the astronomical skills and knowledge of the rabbis as evidenced in the Babylonian Talmud. He discusses, Rabban Yochanan ben Zakkai, Gamliel, Rabbi Joshua ben Chananiah, Eliezer the Great, Samuel, Hillel the Younger and many more are listed as being well versed in this topic.

⁵⁷ In his Introduction to Sanctification of the New Moon, Obermann cites the Talmudic sages whom he considers to have been influential in determining major principles of the calendar. He lists Patriarch Gamliel II, Mar Samuel, Abaye and Raba.

The study of astronomy was well known and wide spread in Babylonia and surrounding areas.

One of the main reasons for the transmission of astronomical knowledge from one nation to another was undoubtedly the spread of the belief in astrology as the one science which gave insight into the causes of events on earth. It has often been said that astronomy originated from astrology. I see no evidence for this theory. It seems to me much more plausible to assume that one major incentive for the development of astronomy consists in attempts to achieve regularity in the intercalations of the lunar calendars...⁵⁸

Indeed, the calendar as an astronomical, social and religious institution is central to a unified civilization. It is precisely because it embodies all of these elements that so much discussion takes place during the Mishnaic and Talmudic periods concerning the calendar. The following portraits will show that the rabbis had a vast knowledge of astronomy and were deeply concerned with the social and religious aspects of the calendar as they sought various ways to accurately and appropriately reckon time.

The portraits attempt to present not only biographical material about these individuals but also the issues that each confronted as a result of his involvement with the calendar. The lives and impacts of these people are important to a discussion about the development of the Hebrew calendar because while the calendar is based upon observable natural cycles of God's world, it is regulated and implemented by human beings. The calendar is a nexus, a meeting place for the interaction between the Divine, nature and human beings. Study of the individuals who were influential in the development of our Hebrew calendar can help us to explore the relationships that are still available to us today, between ourselves, creation and God.

⁵⁸ Neugebauer, The Exact Sciences of Antiquity, p.168.

Gamliel I (Rabban Gamliel the Elder)

Gamliel I lived during the first half of the first century, as Nasi of the Sanhedrin in Jerusalem (and later at Yavneh), between 20 and 40 CE, Rabban Gamliel was responsible for the regulation of the calendar. While calculations concerning to new moon were becoming more precise, and had been known in Babylonia since 633 BCE⁵⁹ and in Palestine since 481 BCE⁶⁰, Rabban Gamliel continued to rely on observable occurrences in the natural, agricultural world in his determination of the new month. In letters he sent to the Jews in the Galilee, to the Jews of Southern Palestine and to Jews in Babylonia and Media he wrote,

דתניא
*מעשה ברבן גמליאל שהיה יושב על גב
מעלה בהר הבית ויהי יוחנן סופר הלוי
עומד לפניו ושלוש איגרות חתומות לפניו
מונחות אמר לו מול איגרתא חדא וכתוב
לאתנא בני גלילאה עילאה ולאנתא בני
גלילאה תתאה שלומבן *יסנא מהודעין
אנתא לכן דומן ביעורא מטא לאפרוש
מעשרא כמעטנא דזוחא וסול איגרתא חדא
וכתוב לאתנא בני דרומא שלומבן יסנא
מהודעין אנתא לכן דומן ביעורא מטא
לאפרוש מעשרא מעובר שיבליא וסול
איגרתא חדא וכתוב לאנתא בני גללותא כבבל
ולאתנא דבבלי ולשאר כל גללותא דישאל
שלומבן יסנא לעלם מהודעין אנתא לכן
דנוליא רכיבין ואימדיא *ערקין חמנא
דאכיבא לא מטא ושפרא מילתא באנפאי
ובאנפי תבירי ואוסיפית על שתא דא יומן
תלחין דילמא בטר דעבדהו:

⁵⁹ Wacholder and Weisberg, p.236. Prior to 747 BCE there was no predictable pattern of intercalation, between 633-482 BCE a predictable pattern begins to emerge which then becomes standardized between 481 BCE and 71 CE.

⁶⁰ Wacholder and Weisberg p.239.

For it has been taught: It once happened that Rabban Gamliel was sitting on a step on the Temple-hill, and the well known scribe Jonathan was standing before him while three cut sheets were lying before him. 'Take one sheet' he said, 'and write an epistle to our brethren in Upper Galilee and to those in Lower Galilee, saying: "May your peace be great! We beg to inform you that the time of 'removal' has arrived for setting aside [the tithe] from the olive heaps." Take another sheet, and write to our brethren in the South, "May your peace be great! We beg to inform you that the time of 'removal' has arrived for setting aside the tithe from the corn sheaves." And take the third and write to our brethren, the Exiles in Babylon and to those in Media, and to all the other exiled [sons] of Israel, saying: "May your peace be great forever! We beg to inform you that the doves are still tender and the lambs still too young and that the crops are not yet ripe. It seems advisable to me and to my colleagues to add thirty days to this year."⁶¹

"The purposes of the letters are clear. Two deal with tithing and the third with intercalation."⁶² Rabban Gamliel, sitting in Jerusalem, shows an awareness and sensitivity to the agricultural happenings in the various areas where Jews live. He knows that the olives and corn are ripe and ready to be tithed. Rabban Gamliel also knows that some crops, particularly the barley, are not yet ripe and that the animals needed for the Pesach sacrifice have not yet matured. In order to allow the crop to ripen and the animals to grow to the appropriate stage, he intercalates a month. He adds in an additional month (Adar II)⁶³ so the barley and the lambs would have more time to develop and be ready for ritual use during Pesach and the omer period. He makes this

⁶¹ B. Sanhedrin 11b. For Philological notes, Epistolographic Considerations and General Interpretation of these letters see Pardee, pp. 192-196.

⁶² Pardee, p.195.

⁶³ See *Sar Shalom* p.82 for placement of the additional month and observance of holidays and fasts. Isaac Klein explains "...the periodic addition, or intercalation, of a thirteenth month, known as Second Adar, or Adar II, immediately after the normal month of Adar, which in leap years is known as First Adar, or Adar I...Adar II is added to the third, sixth, eighth, eleventh, fourteenth, seventeenth, and nineteenth year of every nineteen-year period..." p. 258-259. In regard to the observance of Purim, which takes place in the month of Adar, Klein explains, "During a leap year, it is the usual practice to do all things that must be done during the month of Adar during First Adar, in conformity with the principle that 'one must not pass by precepts' (B. Pesachim 64b). Purim, however, is celebrated only during Second Adar (Mishnah Megillah 1:4)..." p. 237.

determination not based on calculations but on readily observable events in the natural world.

In addition to depending on the natural world to determine the calendar, Rabban Gamliel relied heavily on the testimony of witnesses to determine the new moon and instituted some innovations to ensure that fulfilling this mitzvah was not too onerous for the witness.

Of the innovations of Rabban Gamliel, there were some of great importance for his time. He introduced a new procedure for taking testimony regarding the beginning of a new month. When it was necessary to hear such testimony on a Sabbath, the witnesses were kept at Beth Yazek and they were not permitted to leave because of the Biblical prohibition that "no man shall leave his place". Rabban Gamliel amended this law to permit one to walk 2000 ells in every direction from where one was...⁶⁴

As much as Rabban Gamliel may have used the state of the harvest and the testimony of witnesses to determine the month he must also have been familiar with astronomical material and calculations because his grandson in later years makes great use of this subject matter. Gamliel (the grandson) said:

אמר להם ר"ג כך מקובלני מבית אבי אבא "אין הרושה
של לבנה פחותה מעשרים וחשעה יום ומהצהה ושני שלישי שעה וע"ג הלקים

I have it on the authority of the house of my father's father that the renewal of the moon takes place after not less than twenty-nine days and a half and two-thirds of an hour and seventy-three *halakin* (parts of an hour)...⁶⁵

Rabban Gamliel may well have been very knowledgeable about the mathematical calculations for determining the new month and the intercalation of the

⁶⁴ Bader, p.125. Based on Exodus 16:29.

⁶⁵ B. Rosh Hashanah 25a.

year, but it is clear that he used his astronomical background to supplement what he observed in the agricultural and animal world in determining the calendar for his generation.

Rabbi Yochanan ben Zakkai

Yochanan ben Zakkai lived during the first century CE and was particularly active as a leader between 40 and 80 CE.⁶⁶ Following the destruction of the Temple in Jerusalem in 70 CE, Yochanan Ben Zakkai established Yavneh as its replacement. Under his leadership, it served as the central meeting place for the Sanhedrin and for the ritual practices of Jewish life. Yochanan ben Zakkai was one of Hillel's students and was considered to be a great scholar. It is said of him that,

אמר עליו על רבן יוחנן בן זכאי שלא הניח בקרא
וכשנה נבדא הלכות ואגדות דקדוקי תורה ודקדוקי ספרים קלים וחמורים
וגזרות שוות תקופות ונימשיאות שדה מלאכי השדה ושירת ימים
ושירת דקלים משלות כובסין משלות יועלים דבר גדול ודבר קטן

he did not leave [unstudied] Scripture, Mishna, Gemara, *Halachah*, *Aggadah*, details of the Torah, details of the Scribes, inferences *a minori as majus* analogies, **calendrical computations**, *gematrias*, the speech of the Ministering Angels, the speech of spirits, and the speech of palm trees, fullers' parables and fox fables,⁶⁷ great matters or small matters.⁶⁸

⁶⁶ Steinsaltz, *A Reference Guide*, p. 31.

⁶⁷ Rabbi Meir was also well schooled in fox fables. B. Sanhedrin 38b explains, "...Rabbi Meir had 300 parables of foxes, and we have only three left [as illustrations of Ezekiel 18:2, Leviticus 19:36 and Proverbs 11:8]." Rashi provides the parables, combined in a single story. See also B. Berachot 61b and Kohellet Rabba Y: 14. For a detailed discussion of fox fables in the ancient Near East, see Bendt Alster, *An Akkadian Animal Proverb and the Assyrian Letter ABL 555* in *Journal of Cuneiform Studies* Vol. 4 1/2 Autumn 1989, pp. 187-193.

⁶⁸ B. Sukkah 28a.

Yohanan ben Zakkai's task at Yavneh was to adjust Jewish life, which was previously Temple-centered, to new existing conditions. He did this in regard to holiday and Shabbat observance, the offering of fruits and new crops, and in regard to the calendar.

Concerning the calendar Yohanan ben Zakkai "introduced measures that show his appreciation of reality."⁶⁹ Guttman credits him with three innovations regarding witnesses of the new moon: **1)** In the time of the Temple, witnesses were allowed to transgress the Shabbat in order to travel to testify about the new moon. Yochanan ben Zakkai restricts this practice, allowing the witnesses to transgress the Shabbat only for the months of Nisan and Tishri⁷⁰. "The reason for this measure is that since we no longer have a sacrificial cult, the permission regarding the other months lost its justification."⁷¹ **2)** Yochanan ben Zakkai restores an old practice. He allows for witnesses of the new moon to be admitted to the court all day long. The time for the admittance of witnesses had been restricted in Temple times because they caused a distraction to the Levitical priests.⁷² "After the destruction of the Temple, this *Taqqanah* had lost its meaning and therefore Yohanan ben Zakkai annulled it."⁷³ **3)** Yochanan ben Zakkai "provides that the witnesses to the new moon should always go to the place of assembly, no matter where the head of the court may be at that time."⁷⁴ Certainly this was a very practical measure implying that the head of the court...was not always at the assembly...when the witnesses of the new moon were expected to arrive..."⁷⁵

⁶⁹ Guttman p. 192.

⁷⁰ This interpretation is based on B. Rosh Hashanah 21b, and while we can not prove that this as a historical fact the Talmudic tradition attributes this innovation to Yochanan ben Zakkai.

⁷¹ Guttman p. 192.

⁷² Mishnah RH 4:4. It is interesting and yet unclear to me why 4:4 is not included following 3:1.

⁷³ Guttman p. 192.

⁷⁴ Mishnah RH 4:4.

⁷⁵ Guttman p. 192.

Yochanan ben Zakkai, like Gamliel before him, was knowledgeable about calculating the calendar but preserved the institution of witnesses and the determination of the calendar by citation.

Gamliel II

Gamliel II (died 116 CE) was the grandson of Rabban Gamliel I and succeeded Yochanan ben Zakkai as Nasi in Yavneh in the year 80 CE. He was extremely knowledgeable about the calendar and astronomical calculations.

Gamliel was well aware that a single calendar for all the Jewish people was a *conditio sine qua non* for their unity. For this reason, he devoted much of his work to matters of calendation. Both Geonim and Karaites ascribe basic achievements to Gamliel in matters of calendric calculations...Gamliel possessed knowledge in astronomy which he applied for calendric purposes.⁷⁶

Gamliel II is one of the earliest Jewish astronomers. He is said to have made use of an instrument that allowed him to measure vast distances.⁷⁷

תנא :
שפופרת היתה לו לרבן גמליאל שהיה מביט
וצופה בה אלפים אמה ביבשה וכנגדה
אלפים בים הרוצה לידע כמה עומקן של גיא
מביא שפופרת ומביט בה וידע כמה עומקן
של גיא והרוצה לידע כמה גובהו של דקל
מודד קומתו וצלו וצל קומתו וידע כמה גובה
של דקל

A Tanna taught: R. Gamliel had a tube through which he could see at a distance of two thousand cubits across the

⁷⁶ Guttman, p. 203.

⁷⁷ Brodetsky writes, "...the description given of it is very inadequate, and I am not aware of any satisfactory explanation of its construction and use... This is one of the most puzzling scientific passages in the Talmud..." p. 9. Rashi (1040-1105) explains this to be a telescope (yet he lived long before the invention of the telescope by Galileo in 1609). Maimonides explains that this tube was an astrolabe whose use can only be understood by those who know all about trigonometry and the solution of triangles. (It is my conclusion that we do not know what this instrument was that was used by Gamliel or how it was used. I can conclude that he made use of sophisticated instruments to measure distances and that these were skills he also employed in regard to the moon and the calculation of the calendar.

land and a corresponding distance across the sea. If a man desires to ascertain the depth of a ravine let him use a tube and by looking through it be in a position to ascertain the depth of the ravine, and if he wishes to ascertain the height of a palm-tree, let him measure his own height and the length of his shadow as well as that of the tree, and he will thus ascertain the height of the palm-tree.⁷⁸

This passage continues to describe another tool used for measuring distances and while its use was not attributed to Gamliel, it was in use during the time of the Talmud.

הרוצה שלא תשרה חיה רעה בצל
קבר נעין קנה בר' ישעות ביום ויראה להיכן
צלו נטה משפיץ ועולה משפיץ ויורד :

If a man desires to prevent wild beasts from sheltering in the shadow of a grave [mound] let him insert a rod [in the ground] during the fourth hour of the day and observe in which direction its shadow inclines and then make [the mound] slope [from the ground] upwards and [from its top] downwards...⁷⁹

Gamliel II made use as well, of charts depicting the various phases of the moon.

דמות צורות לבנות הוי לו לרבן
גמליאל בטבלא ובכותל
יבעליתו. שבהן מראה את-
יההדיוטות. יאומר, הנה ראייתך.
או כנה?

Rabban Gamliel had diagrams of the shapes of the moon on a tablet and on the wall of his upper chamber. These he used to show to the ordinary people, asking, "Didst thou see it like this, or like that?"⁸⁰

⁷⁸ B. Erubin 43b.

⁷⁹ B. Erubin 43b. Feldman suggests that this instrument is the Gnomon. "A vertical rod of known height fixed on a smooth horizontal plane, divided into degrees, etc. By measuring the direction and length of the shadow cast by the rod, the ancients were able to make astronomical measurements with considerable accuracy." p. 83.

⁸⁰ Mishnah RH 2:8.

Under his leadership, the transition from determining the new month by calculation as opposed to by citation and the state of the crops continues to crystalize. His grandfather Rabban Gamliel I, was aware of calculation but still relied primarily on witnesses and seasonal determinations for determining the calendar. Rabban Gamliel I undoubtedly had an impact on his grandson's passion for determining the calendar by calculation.

גמלי' חניא אמר להם ריג לחכמים כך
 מקבלני מבית אבי אבא פעמים שבא בארוכה ופעמים שבא בקצרה א"ר
 יודגן מ"ט דבי רבי דכתיב עשה ירח למעדים שמש ידע מכואו ישמש
 הוא ידע מכואו ירח לא ידע מכואו¹.

It has been taught: Rabban Gamliel said to the Sages: This formula has been handed down to me from the house of my father's father: Sometimes it [the moon] traverses [the heavens] by a long course and sometimes by a long course...⁸¹

Gamliel II knew about the motions of the heavens and may have felt he could calculate the appearance of the new moon more accurately than a witness could view it (it could be cloudy or the witness could mistakenly see a cloud...). There are scholars who believe, "it is quite possible that his knowledge was so substantial that the testimony of witnesses became a mere formality with him."⁸² As sure as he was of his calculations, he did not dissolve the institution of witness to the new moon. By maintaining the witnesses and the formality of the proclamation, he kept the people involved in this aspect of determining the calendrical structure of the community. The people maintained an involvement in a monthly ritual based on an observable natural event. This helped them to stay in tune with natural cycles of the land and the heavens

⁸¹ B. Rosh Hashanah 25a.

⁸² Guttmann, p.203.

and to continue in a close relationship with the natural events surrounding them in their daily lives.

He considered the testimony of witnesses to the appearance of the new moon so essential that he set no limit to the number of witnesses allowed to desecrate the Sabbath by traveling on it in order to testify before the Bet Din even though, according to the law, two witnesses are sufficient.⁸³

Gamliel II was considered the leading astronomer of his generation. This is evidenced in a dispute he had with Rabbi Joshua ben Chananya (Rabbi Joshua) over the date of Yom Kippur as determined by their individual calculations.

בַּעַל מִשָּׁה וְאַהֲרֹן נֹדֵב וְאַבְיָהוּ
וְשִׁבְעִים מִזְקְנֵי יִשְׂרָאֵל. וְנֹלְמָה לֹא
נִתְפָּרְסוּ שְׁמוֹתָן שֶׁל זְקֵנִים? אֲלֵא
לְלַמֵּד סֶכֶל שְׁלֹשָׁה וְשִׁלְשָׁה סְעֻמָּדוֹ
בֵּית דִּין עַל יִשְׂרָאֵל הָרִי הוּא
כְּבֵית דִּיעוֹ שֶׁל יִימֻשָׁה. יִינָטֵל
מִקְלוֹ וּמַעוֹתָיו בְּיָדוֹ הֵלֶךְ לִבְנֵהוּ
אֲצֵל רִבֵּן גַּמְלִיאֵל בְּיוֹם שֶׁחֵל יוֹם
הַכַּפּוּרִים לֵהְיוֹת יִיבְחָשְׁבוּנֵהוּ. עָמַד
רִבֵּן גַּמְלִיאֵל וַיִּשְׁקוּ עַל רֹאשׁוֹ. אָמַר
יִלּוּ, בּוֹא בְּשִׁלּוֹם, רִבֵּי וְתִלְמִידֵי.
רִבֵּי בְּחֻקְמָה, וְתִלְמִידֵי שֶׁקִּבְּלֵת
יִדְבָּרֵי.

שָׁלַח יְלּוֹ רִבֵּן גַּמְלִיאֵל, גּוֹזְרֵי
עָלֶיךָ שֶׁתִּבְאֵ אֲצֵלִי בְּמִקְלֶךָ
וּבְמַעוֹתֶיךָ בְּיוֹם הַכַּפּוּרִים שֶׁחֵל
לֵהְיוֹת יִיבְחָשְׁבוּנֶךָ. הֵלֶךְ וּמָצְאוּ
רִבֵּי יַעֲקֹבָא מֵיִצְרָא. אָמַר יְלּוֹ,
יִישׁ לִי יִלְלִמוּד סֶכֶל מַה-שֶּׁעָשָׂה
רִבֵּן גַּמְלִיאֵל יַעֲשׂוּי. יִשְׁנֹאמַר, אֵלֶּה
מוֹעֲדֵי ה' מִקְרָאֵי קֹדֶשׁ אֲסֹר
תִּקְרְאוּ אֲתֵם, בֵּין בְּזִמְנֵן בֵּין שֶׁלֹּא
בְּזִמְנֵן, אֵין לִי מוֹעֲדוֹת אֲלֵא יֵאלוּ.
יָבֵא לוֹ אֲצֵל רִבֵּי דוֹסָא בֵּן
הֶרְכִּינֵס, אָמַר יְלּוֹ, אִם בָּאֵין אֲנִי
לְדוֹן יִיאַחַר בֵּית דִּיעוֹ שֶׁל רִבֵּן
גַּמְלִיאֵל צְרִיכִין אֲנִי לְדוֹן אַחַר
כָּל-בֵּית דִּין וּבֵית דִּין שֶׁעָבַד
מִימֹת מִשָּׁה וְעַד עַכְשָׁיו, יִיִשְׁנֹאמַר.

⁸³ Guttman, p.204.

Rabban Gamliel sent to him (to R. Joshua), "I order thee to come to me with thy staff and thy money on the day that the Day of Atonement will fall according to thy calculation. (Which would not have been on the 10th of Tishri according to Rabban Gamliel's computation). R. Akiba went and found him (R. Joshua) looking troubled. He said to him, "I can prove to thee that whatever Rabban Gamliel has done is decisive, for it is said, *These are the appointed seasons of the Eternal, holy convocations, which ye shall proclaim*, whether at their proper time or whether not at their right time, I have no other festivals than these." He (R. Joshua) came to R. Dosa ben Hyrcanus who said to him, "If we desire to argue against the Court of Rabban Gamliel, we must argue against every Court that had arisen from the days of Moses until now, as it is said, *Then went up Moses and Aaron, Nadab and Abihu and seventy of the elders of Israel*. Why were not the names of the elders expressly mentioned? Just to teach us that any three persons who have risen up as a Court over Israel are like to the Court of Moses." He (R. Joshua) took his staff and his money in his hand and went to Jabneh to Rabban Gamliel on the day that the Day of Atonement fell in accordance with his (R. Joshua's) reckoning. Rabban Gamliel stood up and kissed him on the head and said to him, "Come in peace, my master and my disciple! My master in wisdom, and my disciple because thou hast accepted my words."⁸⁴

In this passage from the Mishnah, Rabban Gamliel and Rabbi Joshua are having a dispute over the correct calculation for the date of Yom Kippur. Rabban Gamliel, being the leading astronomical scholar and Nasi, challenges the validity of Rabbi Joshua's calculation. He asks R. Joshua to come see him on Yom Kippur according to Joshua's calculation which is not the same as Gamliel's (Gamliel asks Joshua to travel and to carry with him his staff and his money, all of which are violations of this most sacred day).⁸⁵ Rabbi Joshua then has a difficult decision to make. If he upholds his own calculations, and does not travel to see Gamliel on the appointed day, he contradicts the

⁸⁴ Mishnah RH 2:9.

⁸⁵ Dr. David Weisberg points out that while Gamliel was accurate in his calculation of the calendar he commits the sin of arrogance by demanding that Joshua come to him on Yom Kippur.

authority and ability of the Nasi. And yet if he does travel to Gamliel on the appointed day, he draws into question his own skill in calculating the calendar. Upon the advise of his colleagues, R. Akiba and R. Dosa ben Hyrcanus, he is convinced of the authority of Gamliel and consents to the Nasi's calculations. Gamliel recognizes the difficulty of this decision and also the abilities of R. Joshua. Gamliel greets him warmly, while at the same time asserting his own unique authority to determine the calendar.

Rabbi Joshua ben Chananya (Rabbi Joshua)

Joshua ben Chananya lived during the first and second centuries and was an active leader from 80-110 CE.⁸⁶ In spite of the dispute between Rabbi Joshua and Rabban Gamliel recorded in the Mishna, Rabbi Joshua was known to be an accomplished astronomer. He was knowledgeable about comets and may have been aware of what we know today as Halley's comet.⁸⁷ The following story is told of Rabbi Joshua and Rabban Gamliel:

היו אולי בספינתא בהדו דר' גמליאל
 היה פתא בהדו רבנן ירושע היה פתא וסולחא שלים פתיה דר' גמליאל סנך אמלחיה דרבנן ירושע
 אמר ליה פו היה ידעת דהיה לן עובא כולי האי דאיתיה סולחא אמר ליה כוכב אחד לשבעים שנה
 עולה ומתקף את (הספנים) (הספנים) (אמרתו שמא יעלה ויתקף) (איתנו) אמר ליה כל כך בדרך

They once traveled on board a ship. R. Gamliel had with him some bread only, while R. Joshua had with him bread

⁸⁶ Steinsaltz, *A Reference Guide*, p.31.

⁸⁷ Feldman, "The star with which R. Joshua was acquainted has been identified as Halley's comet whose periodic time is about 75 years." Z. Brodetsky disputes this view, since one of the periodic returns of Halley's comet was in the year 66, whereas the journey of R. Gamliel was in the year 95. Nevertheless, it remains remarkable that at least one comet was known to R. Joshua in the second century, about 1500 years before this phenomenon became known to even the most civilized nations. p. 11 and 26. Stephenson and Walker in, *Halley's Comet in History* discusses the history of the observation of Halley's Comet. They focus particularly on the ancient observations which took place in China and Babylonia. Regarding the comet in 66 CE they write, "Once again, the only careful description of this return is from China...The Jewish historian Josephus, who lived through the siege and fall of Jerusalem (AD 70), mentions several portents in years leading up to these events. Among these, 'a star, resembling a sword, stood over the city'. It is possible that this was an allusion to Halley's comet in AD 66, but this can be no more than speculation." p. 53. They make no mention of any Talmudic references about Halley's comet in particular or comets in general.

and flour. When R. Gamliel's bread was consumed he depended on R. Joshua's flour. "Did you know" the former asked him, "that we would be so much delayed that you brought flour with you?" The latter answered him, "A certain star rises once in seventy years and leads the sailors (who steer by their course) astray, and I suspected it might rise and lead us astray." "You possess so much knowledge" the former said to him...⁸⁸

In this particular case, Rabbi Joshua's knowledge of the heavens is superior to Rabban Gamliel's. Rabbi Joshua prepares for the likelihood that the comet could appear and cause a sailor to steer of course. Rabbi Joshua brings not only bread but also flour with which he can make more bread as necessary. Rabban Gamliel, despite his abilities for calculation, came on the ship unaware of the possible appearance of the comet, and did not bring extra food with him in the event of a delay at sea. Their relationship is strengthened in that Rabbi Joshua shares the flour, and Rabban Gamliel recognizes Rabbi Joshua's extensive knowledge of celestial events.

Rabbi Joshua's passion for objects in the heavens is evidenced in his comments to R. Eliezer.

ת"ר בשחלה ר' אליעזר נכנסו ארבעה וקנים לבקר ר' טרפון ור' יהושע ור' אלעזר
 בן עזריהו זה עקובא נענה ר' טרפון ואמר טוב אתה לישראל מטיפה של גשמים שטיפה של גשמים בעולם
 הזה ורבי בעולם הזה ובעולם הבא נענה ר' יהושע ואמר טוב אתה לישראל יותר מנגלגל רמה שנגלגל רמה
 בעולם הזה ורבי בעולם הזה ובעולם הבא

When R. Eliezer fell sick, four elders went to visit him, R. Tarfon, R. Joshua, R. Eliezer b. Azariah, and R. Akiba...R. Joshua observed, "Thou art more valuable to Israel than the sun's disk: the sun's disk is but for this world, whilst my master is for this world and the next..."⁸⁹

Rabbi Joshua passes his interest and his skills in calendar computation on to his nephew Chananya.

⁸⁸ B. Horayoth 10a.

⁸⁹ B. Sanhedrin 101a.

Chananya (Nephew of Rabbi Joshua ben Chananya)

Chananya lived from 80/90-160 CE, and while he was born in Palestine, he lived much of his life in Babylonia. He went to Babylonia sometime before the year 130 CE, settling in Nehardea, to be protected from influences of sorcery. While he was there, he continued to maintain ties with Palestine but took authority for himself in Babylonia, of which the Patriarchate in Palestine disapproved.⁹⁰

Chananya was the greatest of the scholars in Eretz Yisrael at the time of the Hadriatic persecutions which followed the BarKochba revolt in 135, and with his departure the power of the Sanhedrin was diminished. As a result Chananya permitted himself "to intercalate the years and fix the new moons" in exile, in conformity with the halakha that the greatest among the ordained scholars of the generation may do so outside of Eretz Yisrael if he has not left his equal in the land. He continued to do so after the persecutions abated and Eretz Yisrael again became the center of Torah, because he regarded himself as the outstanding scholar of the generation and the scholars of Eretz Yisrael as inferior to him. The Jews of Babylonia followed his calendar, and in consequence the scholars of Eretz Yisrael took vigorous steps against him...⁹¹

With Chananya, the issues surrounding the calendar become even more complicated. No longer is the dispute over the calendar only an issue of citation vs. calculation. The determination of the calendar is now part of a political power struggle between the Sanhedrin in Palestine and the somewhat autonomous Jewish authorities in Babylonia. The conflict becomes clear in the following story,

⁹⁰ Neusner Yotl, p. 123.

⁹¹ Kaplan p. 1254.

אמר רב ספרא ר' אבדו היה משתעי כשירד חנינא בן אחי רבי יודישע לנולה היה מעבר שנים וקובע חדשים בתוצה לארץ שגרו אחריו שני ת"ח רבי יוסי בן כיפר ובן בנו של זכריה בן קבוטל כיון שראה אותם אמר להם למה באתם אל ללמד תורה באנו הבריו עליהם אנשים הללו גדולי הדור הם ואבותיהם שמשו בבית המקדש כאותה ששנינו זכריה בן קבוטל אומר הרכה פעמים קריתי לפניו כספר דניאל התחיל הוא מטמא והם מטדרים הוא אוסר והם מתירים הבריו עליהם אנשים הללו של שוא הם של תרו הם אמרו לו כבר בנית ואי אתה יכול לסתור כבר נדרת ואי אתה יכול לפרוץ אמר להם מפני מה אני מטמא ואתם מטדרים אני אוסר ואתם מתירים אמרו לו מפני שאתה מעבר שנים וקובע חדשים בח"ל אמר להם והלא עקיבא בן יוסף היה מעבר שנים וקובע חדשים בח"ל אמרו לו הגח ר"ע שלא הגיח כמותו בארץ ישראל איל אף אני לא הגחתי כמותי בא"י אמרו לו גדיים שהגחת נעשו תישים בעלי קרניים והם שגרונו אצלך וכן אמרו לנו לבו ואמרו לו כשמנו אם שומעו מטוב ואם לא ידא בנדוי

R. Safra said: R. Abbahu used to relate that when Chananya the son of R. Joshua's brother went down to the Diaspora, he began to intercalate the years and fix the new moons outside Palestine. So they [the Beth din] sent after him two scholars. R. Jose b. Kippar and the grandson of R. Zechariah b. Kebutal. When he saw them, he said to them: Why have you come? They replied: We have come to learn Torah [from you]. He thereupon proclaimed: These men are among the most eminent of the generation. They and their ancestors have ministered in the sanctuary... Soon they began to declare clean what he declared unclean and to permit what he forbade. Thereupon he proclaimed: These men are worthless, they are good for nothing. They said to him: You have already built and you cannot overthrow, you have made a fence and you cannot break it down. (You cannot take away from us the name you have conferred on us) He said to them: Why do you declare clean when I declare unclean, why do you permit when I forbid? They replied: Because you intercalate the years and fix new moons outside of Palestine. He said to them: Did not Akiba son of Joseph intercalate years and fix new moons outside of Palestine? They replied: Don't cite R. Akiba, who left not his equal in the Land of Israel. They said to him, The kids you left behind have become goats with horns, and they have sent us to you, bidding us, "Go and tell him in our name. If he listens, well and good; if not, he will be excommunicated. Tell also our brethren in the Diaspora [not to listen to him]...⁹²

As a common calendar was a unifying element among all Jewish communities, the Sanhedrin felt that they alone had the prerogative and authority to "intercalate years and

⁹² B. Berachot 63a.

fix new months". When they heard that Chananya was doing this for the community in Babylonia they were upset and sent two emissaries to put a stop to it. R. Jose and the grandson of R. Zechariah traveled to Babylonia, and Chananya misinterpreted their visit as being a tribute to his authority as a scholar (they had come all that distance to study with him). They in turn set about to disprove his ability and authority in Nehaerdea by contradicting his rulings. When he confronts them they explain they are doing this because he has taken too much power for himself by, intercalating years and fixing new months, outside of Palestine (away from the seat of the Sanhedrin). They explain that R. Akiba could do this outside of the Land of Israel because he was the outstanding scholar of the generation. Chananya, they uphold, has been surpassed by others and that because those leading sages are within the land of Israel they and not Chananya have supreme authority to intercalate years and fix new months. They threaten him with excommunication and attempt to reassert the authority of the Sanhedrin in Israel to the community in Babylonia. Chananya does not heed this threat, and the community continues to view him as their authority despite the emissaries sent from the Sanhedrin.

Since control over the calendar was regarded as the prerogative of the Palestinian patriarchate, and since that prerogative represented a source of potential authority and power over the conduct of Judaism throughout the world, the patriarch, probably R. Simeon b. Gamliel, disapproved rather strongly of Chananya's action.⁹³

Determining the calendar has become a symbol of authority and political power. Chananya's actions make this vital issue public and far more complex. He asserts his own authority and the independence of his community from the the jurisdiction of the Sanhedrin in Palestine. This is only the beginning of a conflict that will long endure

⁹³ Neusner Yell, p.125.

between the centrality of Israel for the Jewish people vs. the power of diaspora communities.⁹⁴

Judah Hanasi (Judah I, Rabbi, Rabbenu Hakodesh)

Judah Hanasi lived during the later half of the second century and the beginning of the third century. When he was the head of the Sanhedrin it convened at Bet Shearim and later at Sepphoris. He is considered to be the primary redactor of the Mishna and while he ruled in Palestine, he was respected by sages in Babylonia and was recognized by them as being the supreme authority.

In his relations with the Babylonia Diaspora Judah Hanasi displayed...concession and strength: the Nasi was king with none superior to him...Furthermore, the inclusion of Babylonian sages in his intimate circle helped to cement Judah Hanasi's ties with the important Babylonian Diaspora.⁹⁵

His positive relationship with the Babylonian community provided an opportunity for there to be unity between the two communities concerning matters of the calendar, during his lifetime. While the conflict over intercalation of the year and determination of the new month had taken place between Chananya and the Sanhedrin, under Judah Hanasi there was no conflict.

At all events there is no reference to an attempt at intercalating the year in Babylonia as had been done in the preceding generation...⁹⁶

Judah Hanasi was extremely knowledgeable about matters concerning the calendar and is known for having made several innovations. "He...abolished the fire

⁹⁴ See Alon for an additional explanation of this conflict between Palestine and the diaspora communities.

⁹⁵ Encyclopaedia Hebraica in Encyclopedia Judaica, Vol. X p.370.

⁹⁶ Encyclopaedia Hebraica in Encyclopedia Judaica, Vol. X p.370. In J. Nedarim 6:8 40a, the name is wrongly given as Rabbi—see B. Berachot 63b.

signals announcing the new month and instead introduced regulations calculated to expedite both the hearing of witnesses and the dispatch of messengers...⁹⁷ Until this time, news of the arrival of the new month had been communicated by fire signals to the distant communities in Babylonia.

בְּרֵאשׁוֹנָה הָיָה מְשַׂאֵן יְמֵשׂוּאוֹת.
יִמְשָׁקְלָקְלוּ יְהִכּוֹתִים. יִהְיֶה יְיֹצֵאֵן.
שִׁיהוּ שְׁלוּחֵי יְיֹצֵאֵן.

Beforetime they used to light beacons, but after the Samaritans caused great harm, they enacted that messengers should go forth.⁹⁸

The second significant contribution that Judah Hanasi made concerning the calendar was to move the seat of the court for the regulation of the calendar.

..the conclusion would be that at the beginning of the third century, the seat of all calendar regulation was moved by R. Judah I from Judah to Galilee. The immediate reason for this change seems to have been a political one, as evidenced by the death of 24 *keriot* and also hinted at in external sources. It is very probable, however, that in addition to these considerations, it must have been largely motivated by the fact that the Nasi had been living in Galilee...⁹⁹

Judah Hanasi also introduced some leniencies regarding calendation. He allowed a murderer to testify about the new moon or to serve as a messenger. He allowed indirect testimony in regard to the new moon. And, he allowed messengers to leave for respective destinations the evening before the proclamation if the time of the new moon was evident.¹⁰⁰ These leniencies may be indications that Judah Hanasi was so confident in his ability to calculate the accuracy of the calendar that even witnesses

⁹⁷ Encyclopaedia Hebraica in Encyclopedia Judaica, Vol. X p.369. See J. Rosh Hashanah 2:1, 58a.

⁹⁸ Mishnah RH 2:2.

⁹⁹ Weiss, p.276. See Appendix B for map displaying the various seats of calendar determination.

¹⁰⁰ Guttman, p.252.

lacking moral qualities could serve and that even their departure was simply a confirmation of his prior calculations.

Mar Samuel

Samuel lived from 180-257 CE in Babylonia. He was born, and primarily educated in Nehardea by his father Abba bar Abba. While he studied in Palestine, he was never ordained as a rabbi. Despite not having *s'michah* from Palestine, Samuel went on to become a leading authority of his generation in Babylonia. Samuel was "allegedly short, with a big stomach, swarthy and had large teeth."¹⁰¹ He was known to be "a man of considerable wealth. He had fields, which others worked, held slaves and engaged in commerce..."¹⁰²

Samuel was known by the nickname "Yarhina'ah", from the word moon or month, meaning Lunar Expert or Astronomer.¹⁰³

שמעון ירחינאה אסיה רבני

This nickname is used only once in the Babylonian Talmud but numerous other passages establish Samuel as a leading astronomer of the period.¹⁰⁴

In his day Samuel was regarded as the greatest Jewish astronomer, and this probably meant astrologer as well. We have noted how he linked blood letting with the position of Mars (B. Shabbat 129b). In a late source (Deut. Rabba 8:6) he allegedly treated his astrological knowledge with a measure of embarrassment.¹⁰⁵

¹⁰¹ Neusner Vol. II, p. 134. (From B. Nedarim 50b)

¹⁰² Neusner Vol. II, p. 135.

¹⁰³ B. Baba Metzia 85b.

¹⁰⁴ Regarding B. Baba Metzia 85b: Neusner, Vol. II, suspects, "the story was invented with Samuel in mind, to explain why he never received ordination in Palestine, perhaps by a disciple eager to defend his master's reputation. But I do not think it is historically reliable." p. 136.

¹⁰⁵ Neusner Vol II, p. 141.

His familiarity with the heavenly motions and his ability to determine a calendar are testified to in the following two passages:

על הזיקין: "מאי זיקין אמר
 שמואל יכבבא דשביט ואמר שמואל נהרון ל' שביט דשמיא כשביט
 דנהרדעא לבר מכבבא דשביט דלא ידענא מאי נהרדעא דלא עבר כסלא
 ואי עבר כסלא חרב עלמא דא קא חוונן, דעבר זיידה דא דעבר ומתחו כדעבר
 אדי."

מאי כימה אמר שמואל כמאה ככבי אמר לה דמכנסי ואמרי לה דמבדח

1) What are ZIKIN? Samuel said: A comet. Samuel also said: I am as familiar with the paths of heaven as with the streets of Nehardea, with the exception of the comet, about which I am ignorant. There is a tradition that it never passes through the constellation of Orion, for if it did, the world would be destroyed. But we have seen it pass through? Its brightness passed through, which made it appear as if it passed through itself... What is meant by KIMAH [Pleiades]? Samuel said: About a hundred [ke'me-ah] stars. Some say they are close together; others say they are scattered...¹⁰⁶

אמר שמואל יאין תקופה
 ניסן נופלה אלא בארבעה רבעי היום אי
 בתחלה היום או בתחלה הלילה או בהני
 היום או בהני הלילה ואין תקופת תמוז
 נופלה אלא או בארת ומחצה או בשבע
 ומחצה בין ביום ובין בלילה ואין תקופת השר
 נופלה אלא או בשלש שעות או בחשע שעה בין ביום ובין בלילה ואין תקופת
 כבת נופלה אלא או בארבע ומחצה או בעשר ומחצה בין ביום ובין בלילה
 יאין בין תקופת לתקופת אלא השעים ואחד יום ושבע שעות ומחצה ואין
 תקופת מישבה מחברתה אלא חצי שעה

2) Samuel stated: The vernal equinox occurs only at the beginning of one of the four quarters of the day viz., either

¹⁰⁶ B. Berachot 58b. Job 9:9 mentions this constellation in addition to two others, "כסיל וכימה... Who made the Bear and Orion, Pleiades, and the chambers of the south wind." Amos in 5:8 writes, "כסיל וכימה... Who made the Pleiades and Orion..." There has long been discussion and debate among sages and scholars concerning the identification of these various constellations. LXX translates כימה as Orion rather than Pleiades. The description of this constellation given by Samuel is very similar to that given by H.A. Rey, The Stars: A New Way to See Them (Boston: Houghton Mifflin Company, 1976), "...this group of faint stars looks, at first glance, like a tiny silver cloud, but watching closer you can distinguish six individual starlets... The Pleiades are unmistakable..." p.42.

at the beginning of the day or at the beginning of the night or at midday or at midnight. The summer solstice only occurs either at the end of one and a half, or at the end of seven and a half hours of the day or the night. The autumnal equinox only occurs at the end of three, or nine hours of the day or night, and the winter solstice only occurs at the end of four and a half, or ten and a half hours of the day or the night. The duration of a season of the year is no longer than ninety-one days and seven and a half hours; and the beginning of a season is removed from that of the other by no more than one half of a planetary hour.¹⁰⁷

Samuel took his study of astronomy and astrology seriously but as can be seen from the following source he recognized their priority in contrast to Torah study.

ד"א פרו לא בשמים היא
 שמואל אפר לו אין תורה בעולם באיסורולוגין שאומנותן בשמים
 אפרו לשמואל דרו אתה איסורולוגין ומהל בתורה אפר לכן לא
 הייתי סבוס באיסורולוגים אלא בשעה שהייתי פני כן התורה
 איסורי כשהייתי נכנס לבית המים.

Another explanation: What is the meaning of, "It is not in heaven?" Samuel said: The Torah is not to be found amongst astrologers whose work is to gaze at the heavens. People said to Samuel: Lo, you are an astrologer, and yet you are also great in the Torah. Whereupon he replied: I only engage in astrology when I am free from studying the Torah. When is that? When I am in the bath.¹⁰⁸

Just as Chananya's knowledge and ability to calculate the calendar forced him to be involved in a power struggle with the authorities in Palestine so too was Samuel in conflict with the Sanhedrin over his ability to determine the calendar. This conflict is apparent in the correspondence that takes place between Samuel and R. Johanan.¹⁰⁹

¹⁰⁷ B. Erubin 56a.

¹⁰⁸ Deuteronomy Rabba 8:6.

¹⁰⁹ Yohanan ben Nappaha (c. 180-c. 279 CE) was a Palestinian *ammar* whose teachings comprise a major portion of the Jerusalem Talmud. (See EJ Vol X p. 144 for more background information.)

כולדו שני
 דרב הוה כתב ליה רבי יודען לקדם רבינו
 שבבבל כי נח נפשיה הוה כתב לשמואל
 לקדם חבירינו שבבבל. אבד לא ידע לי מוד
 דרביה אנא כתב שדר ליה עיבורא דשתיין
 שני אמר השתא חי שבבבל בעלמא ידע כתב
 שדר ליה *הליסר נמלי פנקי טריפתא אמר אית לי רב בבבל איזיל איהוייה א"ל
 לינוקא פסוק לי פסוקך אמר ליה *ושמואל מת אמר ש"מ נח נפשיה דשמואל;
 ולא היא לא שכיב שמואל אלא כי הויכי דלא ליטרח רבי יודען

During the lifetime of Rab, R. Johanan used to address him (Rab) thus in his letters: Greetings to our Master in Babylon! After Rab's death R. Johanan used to address Samuel thus: Greetings to our colleague in Babylon! Said Samuel to himself, "Is there nothing in which I am his master?" He thereupon sent [to R. Johanan] the calculations for the intercalation of months for sixty years. Said [R. Johanan], "he only knows mere calculations". So he [Samuel] wrote out and sent [R. Johanan] thirteen camel loads of questions concerning doubtful cases of *trefa* Said R. Johanan, "It is clear that I have a Master in Babylon, I must go and see him. So he said to a child, "Tell me the [last] verse you have learnt. He answered " *Now Samuel was dead* ". Said R. Johanan, "This means that Samuel has died". But it was not the case; Samuel was not dead then, and [this happened] only that R. Johanan should not trouble himself.¹¹⁰

This passage from the Babylonian Talmud reflects the bias that R. Johanan and many other Palestinian sages had against their colleagues in Babylonia. R. Johanan recognized no authority outside of Palestine except for Rav, his senior classmate under Judah II, with whom he corresponded, addressing him as "our master in Babylon". Samuel merits this term of respect (being called Master rather than colleague) only after the death of Rav. R. Johanan grants him this respect after he not only shows his skill in the calendar determination (which R. Johanan sees as mere "calculations") but also his ability to determine issues of kashrut.

¹¹⁰ B. Hullin 95b.

The conflict between Palestine and Babylonia was not only one of theoretical power. Concerning control of the calendar there were very specific and concrete reasons for the conflict to develop. Because the calendar was determined in Palestine and word of the new month and festival celebrations had to be sent by messenger to the Jews of Babylonia, the Babylonian Jews very often had to observe two days of festivals to ensure that they occurred on the correct day.

It is probable that Shemuel was most incensed because Babylonian Jews had to depend on messengers from Palestine to inform them of leap years as well as the dates of holidays. The Jews of Babylonia had to celebrate an additional day each holiday because of this custom despite the fact that Shemuel had astronomically calculated the order of the leap years and the exact time of the holidays...¹¹¹

Evidence of Samuel's ability to determine the calendar and the rejection of his calculations is found in the following passage:

אמר
 שמואל יכולנא לחקוני לכולה גולה אמר
 ליה אבא אבה דרבי שמלאי לשמואל ידע
 מר האי מילהא דתניא בסוד העיבור נולד
 קדם חצות או נולד אחר חצות א"ל לא אמר
 ליה מרהא לא ידע מר איכא מילי אחרנייתא
 דלא ידע כר

I am quite able to make a calendar for the whole of the Diaspora. Said Abba the father of R. Simlai¹¹² to Samuel: Does the Master know [the meaning] of this remark which occurs in [the *Baraita* known as] the secret of the Calendar] "If the new moon is born before midday or after midday?" He replied: I do not. He then said to him: Since

¹¹¹ Bader p.678.

¹¹² R. Simlai, an amora, lived in the second half of the third century CE. He was born in Nehardea but spent most of his life in Eretz Yisrael. For more background information about him see Encyclopedia Judaica, XIV:1574. Whether his father had an allegiance to Palestine or to Babylonia is unknown but I would speculate that he favored Palestinian authority and this is the basis of his rebuke of Samuel.

the Master does not know this, there must be other things which the Master does not know.¹¹³

Samuel is significant in the study of the Hebrew calendar because he displays accurate knowledge of many astronomical phenomena. He is also an important contributor to the development of the Hebrew calendar during the Rabbinic period because he provides clear evidence that the Jewish community in Babylonia was able to determine the calendar for themselves, without the Bet Din in Palestine.

Hillel II

Hillel II, the son of Judah Nesiah and the grandson of Gamliel IV, lived in Palestine from 330-365 CE. According to Hai Gaon, quoted in *Sefer Ha-Ibbur* by Abraham bar Hiyya, he is credited with being the individual who made public the formula for calculating the calendar. "Hillel II published *Sod ha-Ibbur* ("The Secret of Intercalation") and *Kevi'uta de-Yarha* ("The Fixing of the New Month") in 358 CE."¹¹⁴ As has been previously discussed,¹¹⁵ the calculations for determining the calendar had long been known among the rabbis, yet Hillel II's publication of them is a significant event in the recorded history of the Hebrew calendar. Nachmanides explains,

From the time of Hillel...in the year 670 of the Selucid era, 4118 AM [358 CE] the Sanhedrin in Eretz Yisrael ceased and it ceased to have experts, and it was he who regulated the order of intercalation, reckoned the years and fixed the months of generations to come..."¹¹⁶

Between the years of 200-500 CE, Eretz Yisrael underwent some radical upheavals. Roman authority was unstable, lacking a central government; thus the power of Christianity increased and as a result pressure was increased on the Jewish

¹¹³ B. Rosh Hashanah 20b.

¹¹⁴ Horowitz, p.484.

¹¹⁵ See Chapter I of this work.

¹¹⁶ *Sefer Ha Zakkut* (Encyclopedia Judaica, VIII:484).

communities. A downward cycle ensued for the community, beginning with an increase in taxation which undermined the economy. Security was affected, and persecution and suppression of Jews and Jewish life continued to rise. Consequently, many Jews left Eretz Yisrael, and Torah study as well as the development of leaders radically declined.¹¹⁷

Despite the unrest and tremendous obstacles, Jewish life continued in Eretz Yisrael with the Sanhedrin retaining the "authority to fix the date of each new month (and thus the dates of the Festivals), to intercalate the years, and to ordain Rabbis."¹¹⁸ This autonomy did not endure, and ultimately ended with the abolition of the position of Nasi early in the fifth century (429 CE). That event was foreshadowed when Hillel II relinquished control over the calendar, a central and pivotal institution in communal Jewish life.

...As political pressure on the Jews of Eretz Yisrael increased, many attempts were made to diminish the status of the Nasi and interfere with the relationship between him and the Jewish Diaspora in Babylonia. In 358 C.E., the head of the Sanhedrin, Hillel II, fixed the Jewish calendar by calculation for all future generations, renouncing the Nasi's right to perform this act and thus his authority throughout the Jewish world...¹¹⁹

In the face of social and political upheaval and conflict, Hillel II felt a need to preserve the integrity of the vital institutions of Jewish life. Fearing the implications if central Jewish authority became dispersed, he made an effort to give authority in advance. Kitov provides this description of how Hillel II might have responded to the conflict. Hillel II,

...saw the ever more frequent and intense persecutions to which gentile governments subjected Israel; and when he saw that the number of disciples worthy of semichah was

¹¹⁷ Steinsaltz, A Reference Guide p. 12.

¹¹⁸ Steinsaltz, A Reference Guide p. 13.

¹¹⁹ Steinsaltz, A Reference Guide, p. 13.

diminishing more and more, he feared lest the government prohibit any further sanctification of the months...He and his Beit Din...arose and adopted a standard system for calculating the new months and festivals till the time of our final redemption. They sanctified in advance all the new months to be observed in accord with their calculation, and the sanctity of Rosh Chodesh therefore adheres to every Rosh Chodesh, when it arrives in accord with our calendar.¹²⁰

This information about Hillel II making public the "secret" for the calculation of the calendar can be misunderstood to mean that it was not until 358 CE that the Hebrew calendar was determined by calculation. Evidence has shown that the Hebrew calendar was calculated much before this date, and thus a different significance must be found for Hillel II's historical action. Mantel argues,

In view of the fact that the courts in Palestine continued to fix the calendar up to the 12th century, it seems unlikely that Hillel II formulated the calendar in 359 CE because he feared the disappearance of competent courts to perform this function. It is more likely that he did so in order to help the communities which were too far from Palestine to be notified in time concerning the dates of the festivals.¹²¹

Hillel II's primary reason might have been anxiety over the disappearance of competent courts, or it could have been a fear that the Diaspora communities would be uniformed. However, because in both cases there were knowledgeable scholars and sages in Babylonia who could competently fill these functionary duties, these are not, in my opinion, the dominant reasons for Hillel II to have taken this action.

Hillel II's true motivation for making public the calculations of the calendar may never be known to us, but I would speculate that it had more to do with the preservation of Jewish communal institutions than any other factor. By making public the "secret" of the calendar, Hillel II gave authority not only to the rabbis but to all people to participate

¹²⁰ Kitov, Vol. I, p. 230.

¹²¹ Mantel, p. 187.

in determination of the calendar. No longer was the appearance of the new moon determined by witnesses and the month sanctified by the court. It was widely known and accessible to any who wished to master the calculations.

The control of the calendar and determination of the dates of the festivals was, and still is, vital to all Jewish communities. We are united despite time and distance because we all celebrate "Pesach in Aviv"¹²² and "Sukkot at the Turning of the Year".¹²³ Hillel II knew the importance of preserving this unity, and, in the face of political oppression and persecution, he determined that public knowledge of how to maintain these festivals in their proper time was necessary. While his action may have distanced people from observing the cycles of the moon, he preserved the essential agricultural origins of the holidays, ensuring that they would be celebrated in their proper time.

¹²² Exodus 23:15, 34:18. For a discussion of Aviv see Chapter I of this work. For a discussion of Pesach see Chapter IV of this work.

¹²³ Exodus 23:16. For a discussion of Sukkot see Chapter IV of this work.

Chapter III

CELEBRATING THE NEW MOON

Historical and Contemporary Formats for Welcoming the New Month

INTRODUCTION

The connection between moon and month in the Biblical period has already been discussed,¹ as has the ability of various sages to calculate the appearance of the new moon in the Rabbinic period.² What has not yet been explored in this document is the ritual celebration which accompanied the appearance of the New Moon in both the Biblical and Rabbinic periods. The celebration of the moon has endured until this day and its contemporary forms of expression also warrant exploration.

Throughout the course of history, this 29-30 day cycle of renewal has developed a variety of associations and expressions. Historically, Rosh Chodesh was commemorated with sacrifices and offerings made to God in thanks for causing the moon to reappear in the night sky. Later in history, a formal declaration made the month official and expressed the joy of renewal felt by the community and the individual. Rosh Chodesh developed the qualities of a festival and thus an abstention from work, especially on the part of women, came to be associated with its celebration. In addition, Rosh Chodesh came to be associated with redemption,³ with the Shekhinah and with the fertility cycle.

Contemporary observances of Rosh Chodesh have replaced the offering of sacrifices and the formal declaration with liturgy to be read in either a synagogue or home setting. Observation of the new moon has re-emerged as a ritual among

¹ See Chapter I of this work. Arthur Waskow, *Seasons of Our Joy* notes, "The Jewish months are truly 'months,' beginning with the new moon and cycling through its phases." p.xx.

² See Chapter II of this work.

³ Arien concludes, "Nature, at first glance, seems an unlikely place to look for a redemption symbol. Yet Judaism does associate natural phenomena, particularly cyclical ones, with the renewal of life and thus with redemption...The moon, then, is an ideal redemptive symbol, indicating as it does the cyclical, repeating, ever-renewing quality of the natural phenomena created by God." p.88-89.

scientists and amateur astronomers and now awaits the re-adoption by liberal Jewish communities. The association of women with Rosh Chodesh has led women's groups to form; gathering each month to celebrate the Shekhinah and the renewal and redemptive qualities of the New Moon.

Ancients and moderns share a romantic fascination with the moon as our only natural satellite and because it combines qualities of constancy and remoteness in our lives.⁴ What emerges concerning the celebration of the New Moon from both a historic and contemporary perspective is that people have long felt a need to observe the moon and to celebrate its reappearance in the night sky. We have long needed to praise God for causing this to happen and for creating the cycles that define our days, months and years.

According to Rabbinic tradition, a person who witnesses an important or stirring phenomenon is obliged to pronounce a benediction⁵. Since a pious Jew offers praise and thanksgiving to the Creator whenever he [or she] becomes aware of the miracle of creation, the appearance of the new moon, with its blessings of light and hope, obviously calls for a benediction.⁶

Observing and celebrating the New Moon has historically drawn people closer to the cycles of the nature and to God their creator. Reviving this practice of observation and celebration can help us today to be more aware of the cycles and to strengthen our role as caretakers of God's creation.

⁴ See Mircea Eliade, "The Moon and its Mystique," Patterns in Comparative Religions. (Meriden, 1956) pp.154-165.

⁵ B. Berachot 54a ff, 59b

⁶ Isaac Klein, p.266-267. See Orach Hayim 426:1; Maimonides, Hilchot Berachot 10:16.

HISTORICAL CELEBRATIONS OF THE MOON

Sacrifices

The festive nature of this day, was characterized in Biblical times by blasts of the shofar and special offerings in the Temple.

On your new moons you shall present a burnt offering to the Lord: two bulls of the herd, one ram, and seven yearling lambs without blemish...And there shall be one goat as a sin offering to the Lord, to be offered in addition to the regular burnt offering and its libation.⁷

And on your joyous occasions—your fixed festivals and new moon days—you shall sound trumpets over your burnt offerings and your sacrifices of well being. They shall be a reminder of you before your God: I the Lord am your God.⁸

The nature of this new moon sacrifice was puzzling to the rabbis of the Talmud and as a result they spin out a fantastic story to explain its unique significance. They respond to Numbers 28:15 and strive to create a reason for the additional new moon offering that is described.

⁷ Numbers 28:11, 15. See also, Deuteronomy 16:1, "Observe the new moon of Abib and offer a pass over sacrifice to the Lord your God, for it was at the new moon of Abib, at night, that the Lord freed you from Egypt."

⁸ Numbers 10:10. Based on Biblical citations Gaster develops the following theory concerning celebration of the moon. "The ancient pagan cult was however, adopted officially in Judah by the apostatic King Manasseh (687-641 BCE—II Kings 21:3,5) and was maintained by other rulers and by the populace in general (Jeremiah 8:2) though it was formally proscribed in 621 BCE by Josiah (II Kings 23:5). A feature of this cult was the worship of the moon on rooftops (Jeremiah 19:13, Zephaniah 1:5); and it seems also to have been a popular custom to salute it reverently as it 'sailed in beauty' (Job 31:26-27)." p.436.

רָבִי שִׁמְעוֹן בֶּן פִּי רַמִּי כְּחֹבֵב יוֹעֵשֵׁי
 אֱלֹהִים אֵחָד שְׁנֵי הַמְּאֹרוֹת הַגְּדוֹלִים וְכֹתִיב
 אֵת הַמְּאֹר הַגְּדוֹל וְאֵת הַמְּאֹר הַקָּטָן אָמְרָה
 יִהְיֶה לִפְנֵי הַקְּב"ה רִבִּישׁ"ע אֲפִישׁר לִשְׁנֵי מַלְכִים
 שִׁישְׁחִישׁוּ כְּבָרַר אֲהִר אֲמַר לֵה לְכִי וּמַעֲמִי
 אֵת עֲצִמְךָ אָמְרָה לִפְנֵי רַבִּישׁ"ע 6 הַוֵּאֵל
 וְאֲמַרְתִּי לִפְנֵיךְ דָּבַר הַגּוֹן אֲמַעִיט אֵת עֲצָמִי
 אֲמַר לֵה לְכִי וּמִשׁוּל בְּיוֹם וּבְלַיְלָה אָמְרָה לֵיה
 מֵאֵי רְבוּחִיהָ *דְּשִׁנָּה כְּמִדְרָא כֵּאִי אֲהִי אֲמַר לֵה זֵיל לִינְנֵנּוּ כִּךְ יִשְׂרָאֵל
 יָמִים וְשָׁנִים אָמְרָה לֵיה יוֹמָא נְמִי אִי אֲפִישׁר דְּלֵא מִנּוּ בִּיה תְּקִיפּוּחָא דְכֹתִיב
 "וְהָיוּ לְאֶחָדָה וּלְמִעֲרִים וּלְיָמִים וּשְׁנַיִם זֵיל לִיקְרוּ צְרִיקִי בְּשִׁמְךָ *עֵקֶב הַקָּטָן
 שְׂמֵאל הַקָּטָן דְּדוֹד הַקָּטָן הָיִיָה דְלֵא קָא מִחְבָּא דְעַתָּה אֲמַר הַקְּב"ה הַבִּיאוּ
 כְּפָרָה עָלַי שְׂמֵעִשְׁתִּי אֵת הִירַח וְהָיִינוּ *דְּאֲמַר ר"ש בֶּן לִקִּישׁ מָה נִשְׁחַנְהָ שְׁעִיר
 שֶׁל רֹאשׁ תְּרֵשׁ שְׂנֵאֲמַר כּוּ *לֵה אָמְרָה הַקְּב"ה שְׁעִיר זֶה יִהְיֶה כְּפָרָה עַל שְׂמֵעִשְׁתִּי
 אֵת הִירַח

R. Simeon b. Pazzi pointed out a contradiction [between verses]. One verse says, *And God made two great lights*⁹... and immediately the verse continues, *The great light...and the lesser light*. The moon said, unto the Holy One, blessed be He, 'Sovereign of the Universe! Is it possible for two kings to wear one crown? He answered, 'Go then and make thyself smaller'. 'Sovereign of the Universe!' cried the moon, 'Because I have suggested that which is proper must I then make myself smaller?' He replied, 'Go. And thou wilt rule by day and by night'. 'But what is the value of this?' cried the moon; 'Of what use is a lamp in broad daylight?' He replied, 'Go. Israel shall reckon by thee the days and the years'. 'But it is impossible', said the moon, 'to do without the sun for the reckoning of the seasons, as it is written, *And let them be for signs, and for seasons, and for days and years*'.¹⁰ 'Go. The righteous shall be named after thee as we find, Jacob the Small, Samuel the Small, David the Small. On seeing that it would not be consoled the Holy One, blessed be He, said, 'Bring an atonement for Me for making the moon smaller'. This is what was meant by R. Simeon b. Lakish when he declared, Why is it that the he-goat offered on the new moon is distinguished in that there is written concerning it *unto the Lord*?¹¹ Because the Holy One, blessed be He, said, Let this he-goat be an atonement for Me for making the moon smaller.¹²

⁹ Genesis 1:16.

¹⁰ Genesis 1:14.

¹¹ Numbers 28:15.

¹² B. Hullin 60b. See also Midresh Hagadd, Pinchas 15.

In addition to answering the question of R. Simeon b. Lakish, this passage provides a wealth of information about the balance between the sun and the moon that is inherent in the Hebrew calendar. It also is an attempt by the rabbis to raise the status of the moon, (not to make it better than the sun, but to help it become equal) despite its small size. This is achieved homiletically by associating the small moon with great (small) leaders of the Jewish people. According to Plaut, "this is an oblique way of suggesting that God atones for Israel's sufferings, for Israel is compared to the moon, pale during history's daylight hours, and shining only in its nighttime."¹³

Rejoicing

Shofar blasts and sacrifices in the Temple reflect the centralized observance, but there are a variety of local observances that also took place. While the importance of the moon for determining the calendar of the Israelite people is clearly established in the Biblical period and the details describing the celebration of the "new moon days" come from a variety of Biblical texts, the overriding characteristic of this monthly observance was rejoicing. It was a time of great festivity. The prophet Hosea in foretelling God's punishment to the people proclaims, "And I will end all her rejoicing: Her festivals, new moons and sabbaths—All her festive seasons."¹⁴

Rejoicing on the new moon day took place in a variety of ways during the Biblical period. There were those who participated in worship, those who ate special meals and those who were sure to be ritually clean.

One form of rejoicing was the worship of God. Isaiah's condemnation of the people for their insincere sacrifices indicates that worship was a common way of celebrating the new moon.

¹³ Plaut, *The Torah: A Modern Commentary*, p.1220.

¹⁴ Hosea 2:13.

Bringing oblations is futile,
Incense is offensive to Me.
New moon and sabbath,
Proclaiming of solemnities,
Assemblies with iniquity,
I cannot abide.
Your new moons and fixed seasons fill me with loathing;
They are become a burden to Me,
I cannot endure them.¹⁵

While the prophet Isaiah condemns the people for offering sacrifices and prayers to God as they participate in immoral and unjust behavior, he also speaks to the people of the enduring practice of worship. He foretells of a day when sincere worship will take place on a continual basis, "on every new moon and Sabbath, regularly."¹⁶

And new moon after new moon, And Sabbath after Sabbath,
All flesh shall come to worship me—Said the Lord.¹⁷

Worship on the new moon day may also have included visits to the local holy men. In the story of Elisha and the Shunammite woman, when their young son dies she takes him to the man of God. Elisha questions this action giving us the impression that visiting the man of God was an event that took place only on the Sabbath and the new moon days.

...Then she called to her husband: "Please, send me one of the servants and one of the she-asses, so I can hurry to the man of God and back." But he said, "Why are you going to him today? It is neither new moon nor Sabbath." She answered, "It is all right."¹⁸

¹⁵ Isaiah 1:13-14.

¹⁶ Stodd, Soncino Commentary to Isaiah, p.326.

¹⁷ Isaiah 66:23. This passage is often repeated at the conclusion of the Book of Isaiah in order to change the tone from the abhorrent one that is referred to in 66:24. Rev. Dr. Stodd in the Soncino Commentary to Isaiah explains, "Jewish custom and tradition revolt against ending upon an unhappy or inauspicious note. Hebrew Bibles and MSS., therefore, repeat the preceding verse with its noble and universal aspiration. The same practice is followed in the public and private reading of this chapter which is the hapterah (prophetic lesson) of the Sabbath that coincides with the new moon. Similar repetitions are found at the end of Malachi, Lamentations and Ecclesiastes for the same reason." p.326.

¹⁸ || Kings 4:22-23. In the Soncino Commentary to || Kings, Reverend Dr. Israel W. Stodd explains, "On these days a visit to the prophet would be usual."

The observance of Rosh Chodesh may have involved a special meal. When David speaks with Jonathan, David indicates he is to eat with the king on the occasion of the new moon, thereby distinguishing it from other days. "Tomorrow is the new moon, and I am to sit with the king at the meal..."¹⁹ From this same story, there is also an indication that on the "new moon days" individuals were to be ritually clean. I Samuel describes an incident between Saul, David and Jonathan which took place on the New Moon.

... David hid in the field. The new moon came, and the king sat down to partake of the meal. When the king took his usual place on the seat by the wall, Jonathan rose and Abner sat down at Saul's side; but David's place remained vacant. That day, however, Saul said nothing. "It's accidental," he thought. "He must be unclean and not yet cleansed." But on the day after the new moon, the second day, David's place was vacant again...²⁰

Local observances of the new moon days took on many different forms, but by piecing them together, we can construct a general picture of the festivities that took place in the villages during the Biblical period. ²¹ What can be reconstructed about this celebration is that it was a time of great rejoicing. There was an abstention from participation in the activities of commerce. Individuals were involved in: worship, making visits to the local men of God, eating festive meals, and being in a state of ritual purity.²²

¹⁹ I Samuel 20:5.

²⁰ I Samuel 20:24-27. Rev. Dr. S. Goldman in the Soncino Commentary to Samuel explains, "The first day of the month was a religious festival, of much greater importance in Biblical than in later Rabbinic times. It was observed as a day of rest, worship and religious instruction. On this day those who, like David, were in the habit of eating at the king's table, would make a special effort to be present (Kinchi)." p. 122.

²¹ Plaut concludes, "The appearance of the new moon was an important event in biblical days and was celebrated with great emphasis, even though no record of the exact nature of the celebration has been preserved." Indeed the appearance of the new moon was an important event in the ancient world, and I have attempted to collect all of the relevant Biblical data to show that the texts discussed above do provide a record and a preservation of the celebration of the new moon in Biblical times.

²² The Assyrian Dictionary indicates that *Essesu* was the name of an ancient Near Eastern monthly festival which took place on a certain day each month, involved offerings and sacrifices, as well as temple

Declaration and Blessing

With the destruction of the Temple in Jerusalem and the establishment of the Sanhedrin, special offerings were no longer brought and the format for the celebration of Rosh Chodesh changed. Celebration focused on the declaration of the month by the court and the formulaic response of the witnessing community. This ceremony came to be known as *kiddush hachodesh*, The Sanctification of the New Month.²³

As the Jewish community dispersed and authority was no longer centralized in Palestine, a separate ceremony developed which did not involve the court but focused directly on the individual who saw the new moon. This ritual was not limited to the day following the appearance of the New Moon at the seat of the Sanhedrin. It could be practiced as long as the moon was in its waxing stage, by any individual, in any outdoor setting. This ceremony, *kiddush levanah* or *birkat halevanah*, The Sanctification or Blessing of the Moon,²⁴ is separate and distinct from the ritual described in the Mishna. Evidence of this ritual can be found in the Jerusalem Talmud,²⁵ the Babylonian Talmud²⁶ and in Exodus Rabba.²⁷ Regarding its chronological development Arian concludes,

In short, by the end of the Amoraic period, the custom had been established to bless the moon monthly, the first time the new moon was sighted, in a standing position. The blessing itself had been fixed. That is all we know of the ceremony itself.²⁸

Arian describes the ritual of *kiddush levanah* in the following way,

ceremonies. Dr. David Weissberg shared this similarity with me and I hope in the future to explore the relationship between this cultic practice and the celebrations of new moon described in the Bible.

²³ Mishnah RH 1:1-3:1. See Chapter II for details of this procedure and celebration.

²⁴ According to Abraham Millgram, *Jewish Worship*, "Blessing the New Month is basically an announcement; the Consecration of the Moon, or *Kiddush levanah*, is a real service with a regular benediction." p.266. A complete discussion of this ritual, its history, halakhic and liturgical developments, as well as its varied symbols and meanings, is found in the HUC rabbinic thesis written by Avram Arian entitled, "The Evolution of Kiddush levanah."

²⁵ J. Berachot 9:2.

²⁶ B. Sanhedrin 41b-42a.

²⁷ Exodus Rabba 15:24.

²⁸ Arian, p.19-20.

Once a month, on a clear night (preferably a Saturday night) when the moon is waxing (i.e., during the first two weeks of the lunar month, or, more precisely, from the third to the fifteenth night of the lunar month) Jews gather outdoors. They recite parts of Psalms 148 and 8, and then a blessing which praises God for creating the heavenly spheres and for renewing the months. They praise God the Creator four times, using four synonyms the first letters of which form an acronym for the name Yaakov. They then "dance" three times, and say three times that they hope their enemies have as difficult a time reaching them as they have just had reaching the moon. They recite a single verse from Exodus, forward and backward three times. They mention David, King of Israel, and his eternity. They then greet each other three times with the traditional shalom 'aleikhem , and respond to each other three times with 'aleikhem shalom. They recite what can only be described as an incantation for good luck, and then two lines from Song of Songs. They continue with two statements from the Talmud emphasizing the importance of blessing the moon monthly. Another line from Song of Songs follows, and then a prayer of kabbalistic origin, composed mainly of fragments of Biblical verses. The ceremony concludes with the recitation of Psalms 121,150 and 67.²⁹

The rabbis recognized that not only was the formal declaration of Rosh Chodesh a joyous time, but the actual citing of the moon by any individual was an opportunity to praise God the Creator. As Neusner reminds us,

The blessings for the budding tress in spring and for violets remind us that the rabbis were deeply sensitive to the grandeur of nature and eager to respond to its blessings with an appropriate benediction.³⁰

Seeing the crescent for the first time each month was a time of thanksgiving; a time of offering thanks and praise to God for once again renewing the moon and bringing with that renewal a hope for the ultimate redemption of the Jewish people. Evidence of

²⁹ Aron, p. 1-2. A detailed outline of the rubrics of this ceremony can be found in Aron's work on pages 5-7.

³⁰ Neusner III, p. 167.

this can be seen when R. Ashi in the name of R. Judah cites this prayer that was offered by the Babylonian people,

אֵל
רַב אַתָּה לַרַב אֲשֵׁי בְמַעֲרַבָּא מְבָרְכֵי בְרוּךְ
מִדְּרַשׁ הַדְּשִׁים אָמַר לִיהוָה הָאֵי נָשִׁי דִּירָן נְמִי
מְבָרְכֵי אֵלָּא כְּדַרְבּ יְהוּדָה דְּאָמַר רַב יְהוּדָה
'בְרוּךְ (וְכוֹ) אִישׁ בְּמַאֲמְרוֹ בְּרָא שְׂדָקִים וְבִרְוּחַ
פִּי כָל צְבָאָא חוּק וּזְמַן נָתַן לְהֵם שְׁלָא יִשְׁנוּ
אֵת תְּפִקְדִים שְׁשִׁים וּשְׁמָחִים לַעֲשׂוֹת רִצּוֹן קוֹנֵם פּוֹעֵלִי אִמְחַ שְׁפַעוּלְתָּן אִמְחַ
וּלְלַבְנָה אָמַר שְׁתַּחֲחַדְשִׁי עֲטָרַת תְּפִאֲרַת לַעֲמֻסַי בְּמִן שְׁהֵן עֲהִירִין לְהַתְּחַדְּשִׁי
כְּמוֹתָהּ וּלְפָאֵר לְיוֹצְרָהּ עַל שֵׁם כְּבוֹד מַלְכוּתוֹ בְרוּךְ אַתָּה ה' מִחְדָּשׁ חַדְשִׁים

Praised art Thou, O Lord our God, who created the Heavens with His word, and their fixed hosts with the breath of His mouth. He appointed unto them fixed laws and times, that they should not change their ordinance. They rejoice and are glad to do the will of their Creator. They work truthfully, for their action is truth. The moon He ordered that she should renew herself as a crown of beauty for those whom He sustains from the womb, and who will, like it, be renewed in the future, and magnify their Maker in the name of the glory of His kingdom. Blessed art Thou, O Lord, who renewest the moons.³¹

Offering blessings in appreciation of natural phenomena is a practice that while formalized by the rabbis of the Talmud has long existed. It has long been the innate response of humans to respond to the magnificence of God's natural world with words of awe and praise. These spontaneous exclamations and well crafted benedictions express our feelings of wonder that only God is able to make these majestic sights. Observing these awesome events and recognizing that they are beyond our power to create or recreate can help us to recognize that we, the tenants of this planet, need to care for the creations of God and preserve their beauty. We need to do more than just bless these beautiful occurrences; we need to be actively involved in maintaining their continued existence so that future generations can also marvel at and praise the

³¹ B. Sanhedrin 42a.

wondrous cycles of creation. The challenge for us is to transfer our good habits of observation and offering benedictions to developing the good habits that are required of us to be caretakers of God's creation.

Women and the Abstention from Work

In addition to rejoicing and blessing, a third aspect of celebrating the New Moon involved an abstention from work. This practice may have, at some time, extended to all members of the community, but it ultimately came to be associated particularly with women. The practice appears to begin in the Biblical period as the prophet Amos describes,

Listen to this, you who devour the needy, annihilating the poor of the land, saying, "If only the new moon were over, so that we could sell grain..."³²

Amos, in preaching to the people provides evidence that on Rosh Chodesh the Israelites did not participate in selling grain. He refers only to the abstention from selling, he makes no mention of the Israelites abstaining from other activities or types of labor.

This theme is developed in later Jewish texts. The Babylonian Talmud, in a discussion about the number of readers of the Torah on various days makes a passing reference to Rosh Chodesh. In the Talmudic text there is no mention about the role of women, and only a brief comment concerning the practice of abstaining from work on Rosh Chodesh.

³² Amos 8:4-5. Rev. Dr. A. Cohen, in the Soncino Commentary to Amos explains this verse in the following manner, "Details of the exploitation of the poor by the rich are now given. So eager were the latter to increase their wealth, even by fraudulent means, that they were impatient for the days to be over on which business had to be suspended. They observed the holy days scrupulously, but were careless about commercial honesty! The new moon was observed as a festival or public holiday." p. 117.

ת"ש זה הכלל כל שיש בו
 ביטול מלאכה לעם כגון חעניה צבור
 והשעה באב "קדין ג' ושארין בו ביטול
 מלאכה לעם כגון ראשי חרשים והולו של
 מניח קדין ד'

Come and hear: "The general principle is that wherever the people would be hindered from their work, as on a public fast and on the ninth of Ab, three read, and where the people would not be hindered from their work, as on New Moons and the intermediate days of festivals, four read."³³

It is only in the commentary provided by Rashi and Tosaphot that the connection between Rosh Chodesh, the practice of abstaining from work and the association with women is made clear. Rashi commenting on this passage from Megillah 22b explains,

ראשי חדשים . אין בו ביטול
 מלאכה כל כך שאין הגשים עושה
 מלאכה בהן והכי נמי אמרינן במס'
 ראש השנה (ד' ע"ג) נבי משהות
 משום ביטול מלאכה לעם שני ימים
 ובמנחה מפי מורי האקן ו"ג שניהם
 להם מטה זו בשביל שלא פירקו
 נזמיהן בעגל (חוספה) והני מלאכה
 בפרק מ"ה דברייהא דרבי אליעזר
 שמשו הנשים ולא רנו ליתן נזמיהן
 לבעליהן אלא אחרו לכן חתם הוליס
 לעשות פבל ומסכה שאין בו כח
 להגיל ונתן הקב"ה שבין שני נשים
 בעולם הוה שיהו משמחה ראשי
 חדשים יותר מן האנשים ולעורר
 הן עמידות להחדש כמו ראשי
 חדשים שנאמר תחדש כגשר
 נעורייכי ע"כ) ותקרא מסייעו דכתיב
 אשר נספח שם ביום המעשה
 (שמואל א' כ) וחרנס יונקן ביומא
 דמולא והאם נמי נבי ר"ח קאי'
 דקאמר ליה חמד מרש וקריי ליה
 לערב ר"ח יום המעשה אלמא ראש
 חדש לאו יום המעשה הוא ומעד
 נמי לר' ביטול מלאכה לעם שהרי
 בחין לביה הכנסה יותר מימות החול
 לר' שאין עושין בו מלאכה אלא בדבר
 האבד :

³³ B. Megillah 22b. This is a somewhat indirect way of saying the people are not hindered from their work on the new moons because they did not work on this day.

New Moon Days. There is no interruption of work, since women are not involved in doing work on them. The same principle applies in the case under discussion in Tractate Rosh Hashanah, page 23b, in connection to [the lighting of] the torches, "so as not to deprive the public of two working days". And I heard from my teacher, the elder, may his memory be for a blessing, that this mitzvah was given to them [the women] because they did not contribute their earrings/noserings to the [making of the golden] calf (Tosaphot). And I also found this in Section 45 of the Bereitah of Rabbi Eliezer: "The women heard and did not want to give their earrings/noserings to their husbands. Therefore they [the women] said to them [the men], 'You want to make an idol, a graven image that does not have within it redemptive power.' And the Holy One, blessed be He, gave a reward to the women in this world: that they would be more observant of Rosh Chodesh than the men. And, in the world to come, they are destined to be renewed like the new moons, as it is said, *your youth is renewed like the eagle* (Psalms 103:5) ³⁴ And scripture supports this opinion as it is written, *where you hid yourself on the day of the deed* (I Samuel 20:19). And Targum Yonatan [reads], *on an ordinary day*. There too [Targum Yonatan] is translating words that relate to Rosh Chodesh. Since Jonathan said to him [David], "tomorrow is Rosh Chodesh", he was referring to it, to the evening of Rosh Chodesh, as an ordinary day. The implication is that Rosh Chodesh is not the day of the action but neither is it a festival day. Furthermore, there is no interruption of work because the people come to synagogue more than on an ordinary day.³⁵ Therefore, they do not work on it except for pressing matters.³⁶

Tosaphot to the same passage explains,

³⁴ See Rashi's comment to Psalms 103:5 in which he describes a mythical bird that rejuvenates itself and is perpetually unharmed.

³⁵ There is no interruption of work because people are not working, they are at synagogue.

³⁶ This is my own translation of the passage.

וְשֵׁאִין כֵּן בַּיּוֹם מִלֵּאכָה כִּינּוּן רֵאשׁ חֹדֶשׁ קָרְוִין לְרֵבֵבָה . וְקָשִׁיא
 דְּהָא בְּפִתְקֵי אִין דְּרֵשִׁין בְּחִנּוּיָה (דף י"ג ו"ב) אֲמַרְיִין רֵאשׁ
 חֹדֶשׁ וְיִסַּח שֶׁשׁ טו קָרְוִין מִכֶּפֶץ וְיִסַּח בְּעִשְׂיָה מִלֵּאכָה וְיִ"ל דְּוֹלֵי
 חֹדֶשׁ הָאֵל בְּעִשְׂיָה מִלֵּאכָה לְאֲשֵׁרִים אֲבָל גַּם־סֵם אֲבוֹרוֹת כְּמִלֵּאכָה לְפִי
 שְׁלַל פִּתְקֵי גִמְיָה בְּמַעֲשֵׂה הַעֲבִילִי :

And where the people would not be hindered from their work, as on New Moons, four read. And this raises a question because it is not explained in the passage from Chagigah 18a. [There] they say "Rosh Chodesh will be the proof," since there is a *musaf* service on it and one is permitted to do work. And, there are those who say³⁷ that certainly the permission to do work applies to men but women are prohibited from work because they did not contribute their earrings/noserings to the making of the [golden] calf.³⁸

In the Jerusalem Talmud a discussion is recorded about the "valid" and "not valid" customs concerning women and work. The rabbis discuss the validity of the custom that women abstain from work on the Sabbath and on fast days.

נְשִׂיָא דְנִהְגִין כִּי דְלֵא לְמִיעֵבַד עֹבְדָא
 כְּפֻלְיָ שׁוֹבְתָא אִינוּ מְנַהֲגִין עַד דִּיהִפְנִי כִּירְחָא
 מְנַהֲגִין בְּהַרְוִיָא וּבְחִנּוּיָהּ אִינוּ מְנַהֲגִין עַד דִּיהִפְנִי
 תַּעֲנִיחָא מְנַהֲגִין בִּיּוֹמָא דְעִרְוִבְתָא אִינוּ מְנַהֲגִין מִן
 מְנַחָה וְלַעֲלִי מְנַהֲגִין (בִּיּוֹמָא דִּירְחָא מְנַהֲגִין)

In addition, in a very off-handed sort of way, they make this determination, [As to (women) not working] on the New Moon, that is a valid custom.³⁹

All of this crystalizes and is made explicit by the eighth century in Pirke de-Rabbi Eliezer.⁴⁰

³⁷ This indicates that the previous line of reasoning is faulty and that the correct answer is forthcoming.

³⁸ This is my own translation to the passage.

³⁹ J. Talmud Taanit 1:6.

⁴⁰ Herr, "Pirke de-Rabbi Eliezer", p.558.

דן אהרן דין בינו לבין עצמו. אמר
 אם אני אומר להם תנו לי כסף וזהב, מיד הם מביאים. אלא
 הריני אומר להם, תנו נזמי נשיכם בגיכם ובגנותיכם, ומיד
 הדבר בטל, שנאמר, ויאמר [אלהם] אהרן פרקו יגזי' (שם שם ב).
 שמעו הנשים ולא רצו ולא קבלו עליהן לתן נזמיהן לבעליהן,
 אלא אמרו להם, לעשות יעגל ותועבה שאין בו כח להציל,
 לא נשמע לכם. ונתן להן הקדוש-ברוך-הוא שכרן בעולם
 הזה, שהן משמרות ראשי חדשים יותר מן האנשים. ונתן
 להם שכר לעולם הבא, שהן עמידות להתחדש כמו ראשי
 חדשים, שנאמר, המשביע בטוב עדיך יגזי' (תהלים קג ה).

Aaron argued with himself, saying: If I say to Israel, Give ye to me gold and silver, they will bring it immediately; but behold I will say to them, Give ye to me the earrings of your wives, and of your sons, and forthwith the matter will fail, as it is said,⁴¹ "And Aaron said to them, Break off the golden rings" (Ex 32:2). The women heard [this], but they were unwilling to give their earrings to their husbands; but they said to them: Ye desire to make a graven image and a molten image without any power in it to deliver. The Holy One, blessed be He, gave the women their reward in this world and in the world to come. What reward did He give them in this world? That they should observe the New Moons more stringently than the men, and what reward will He give them in the world to come? They are destined to be renewed like the New Moons, as it is said, "Who satisfieth thy years with good things; so that thy youth is renewed like the eagle" (Ps.103:5).⁴²

The women are rewarded by God for their refusal to participate in this act of idolatry. Not only are they given an additional day of celebration each month in this world, they are promised that in the world to come they, like the moon, will be continually renewed. The women have done something marvelous by defying idolatry, and this is deserving of recognition. As this text is explored, it is important to remember not only the reward the women receive but the honorable action in which they participated.⁴³

⁴¹ Although this passage is the most commonly quoted proof-text for the relationship between women and Rosh Chodesh, these preceding lines are often left out of the citation. See below for further discussion.

⁴² *Pirke de-Rabbi Eliezer*, Chapter 45 (page 354 in Friedlander translation).

⁴³ This document will not explore in depth the role of women in Judaism but it must be noted, that this is a vital text in regard to that subject because it enhances the image of women. For an extensive bibliography of materials about women and Judaism see, Susan Weidman Schneider, *Jewish and Female* (New York: Simon and Schuster, 1985).

Also interesting is the larger context of this story. It is often left out by those who are commenting on this passage regarding the connection between women and Rosh Chodesh. The larger objective of the author of Pirke de-Rabbi Eliezer may be to improve Aaron's tarnished image for having led the people in building the golden calf. The author tries to present an Aaron that hoped to dissuade the people from making this egregious error. The author puts words into Aaron's mouth which indicate that the women would know better than to participate in this idolatrous activity. Aaron seems to know that the women are less prone to idolatry than men, and Aaron sets up a situation in which he knew the women will refuse participate. He proves to be correct as the story indicates.

This brief introductory remark is significant because it further enhances the positive image of women and indicates that the author saw this event not as a passing fancy, but as an inherent part of their character upon which Aaron could depend and for which all women were deserving of praise in this world and the world to come.

Historically the celebration of the moon has involved rejoicing which mostly part took place in the forms of sacrifices, blessings, and an abstention from work. Those who participated in the festivity were sensitive to the cycles of the moon, they were aware of the waxing and the waning, the total disappearance from view and the ultimate return two to three nights later. People recognized that this regularly occurring cycle, was the work of God the Creator, and that it was worthy of thanks and praise as expressed in the many blessings in appreciation for the manifold wonders of Creation.

CONTEMPORARY CELEBRATIONS OF THE MOON

Contemporary celebration of the New Moon has drawn from these historical practices but has taken on a variety of different forms in its expression. Today, the characteristic rejoicing is still observed, but sacrifice has been replaced by prayer which also includes the declaration of the New Moon on behalf of the community. What has

been lost, from a religious perspective, is regular observation of the moon although this is taking place in the scientific and astronomically oriented communities. The association between women and Rosh Chodesh, has been maintained, but it is time to expand this association to include both men and women.

Monthly Gatherings

The most obvious connection between the moon and women is the similarity between the 29-30 day cycle of the moon and the 28 day menstrual cycle of many women. In the course of time, the moon and the celebration of Rosh Chodesh were either given to or claimed by women as their spot within the ritual calendar of Jewish life. This reclamation is still taking place today.

Moon worship was prevalent throughout the ancient Near East. As far back as Biblical times, it is clear that some sort of Festival of the New Moon was celebrated. Eventually, the holiday became the focus of much controversy between the religious establishment and the folk. It was important for the religious leaders to note the needs of the folk who, after all, lived among the other nations of the Near East. Therefore, the New Moon was probably "made" into a *de-facto* holiday because people were already designating the advent of the new month as a sacred time...⁴⁴

Regarding the observance of Rosh Chodesh by women today, Peninah Adelman writes,

Therefore, it [Rosh Chodesh] was a natural vehicle by which these [womens] groups could wrestle with the issues they needed to resolve in order to remain active in their own heritage...most groups return to traditional sources as a way of reinforcing Jewish identity instead of breaking from it completely. The members of a Rosh Hodesh group

⁴⁴ Adelman, p.6.

gain strength from the tradition in grappling with it or integrating it with their new beliefs and practices.⁴⁵

This view is echoed by Arlene Agus,

The celebration of Rosh Hodesh is the celebration of ourselves, of our uniqueness as women, and our relationship to nature and to God.⁴⁶

The monthly observance of Rosh Chodesh is a perfect opportunity for women, and for men as well, to celebrate the relationship they have with nature and with God, the Ultimate Creator. We need these rituals and celebrations, based on the past and adapted for the present, in order to renew Jewish life and make it creative and inspirational. Rosh Chodesh celebrations need to include women and men; for together, we are caretakers of God's creation and only together can we contribute to the perpetuation of life on this planet.⁴⁷

These deeper levels of change are necessary because the Jewish people—women and men—need more than the inclusion of women in the same kind of Jewish life the rabbis knew. We need the *renewal* of Jewish life—its becoming... fresh and creative and new in its response to Torah...⁴⁸

Rosh Chodesh is one ideal opportunity to help people, women and men, identify more closely with the natural world and the Creator. Waskow writes, ...we can look for circles and spirals in time. We need to strengthen our sense of the cycles in our bodies and in society. For example, we need to see the holy days as not simply individual events, but parts of the spiritual cycles of the month and year. The social-political cycles of *Shabbas*

⁴⁵ Adelman, p.6. Adelman's book suggests a monthly topic and program for women centered Rosh Chodesh groups. She explains, "In the practice of new women's ritual presented in this book, the occasion is marked in settings outside the synagogue with women. In that context, the Jewish calendar becomes a vehicle for noting the monthly cycles of women's fertility and understanding the female aspects of God... Thus, celebrating Rosh Chodesh has become a woman's way to apprehend the Shekhinah, the Divine Presence in this world." p.3.

⁴⁶ Agus, p.85.

⁴⁷ Unpublished Rosh Hodesh services, compiled by Helaine Ettinger for The Reform Temple in Suffern New York, are sensitive to this issue of inclusion and incorporate both traditional and innovative prayers.

⁴⁸ Waskow, "Feminist Judaism..." p.265.

, the *shmitah* and Jubilee need to be renewed, accentuated, made much more real. These cycles alternate hard work toward economic development, with contemplative rest; the swift piling up of wealth and power, with an equal sharing of all wealth and power; doing with being.⁴⁹

While some feminists would not agree that Rosh Chodesh should become a celebration shared by women and men, if we are to truly appreciate our role as caretakers of God's natural world, then we need to do so together. This is not a responsibility that falls on men or women alone, it is incumbent upon all human beings and joining together to celebrate Rosh Chodesh is a step to fulfilling that responsibility.

Observation of the New Moon

Observation of the moon was for a long time central to calendar determination for Jews and remains so today for Muslims. Accurate determination of the new moon and thereby the new month is vital for many religious peoples for time keeping and for festival observances. The Jewish holidays are based on the luni-solar calendar⁵⁰ and their celebrations are tied not only to seasons but to certain phases of the moon. Rosh Hashanah, the beginning of the New Year, is marked by a new moon in the night sky of 1 Tishri. The moon is full on the evening of the First Seder, the 14th of the month of Nisan. The moon is also always full on the first night that we eat and sleep in the Sukkah, the 15th of Tishri. On Shavuot, the moon is nearly two cycles (7 weeks) later than it was on Pesach, it appears to us as a quarter moon. Chanukah too always begins at the darkest moment in the winter sky, there is no moon visible when Hanukkah begins, but as the lights increase in the *channukiah*, the moon reappears in the sky and we welcome the month of Tevet. The Jewish calendar is no longer determined by observation, but rather

⁴⁹ Waskow, "Feminist Judaism..." p.267-268.

⁵⁰ Or, in the words of Dr. Michael Cook, "a luni-solar calendar".

by calculation, and thus a sensitivity to the connection between the observable cycles of the moon and the Jewish holidays has been weakened.

In addition to the ancient religious impetus to observe the new moon, there are presently other motivations for accurate observation of the new moon. LeRoy E. Doggett and P. Kenneth Seidelmann of the U.S. Naval Observatory and Bradley E. Schaefer of NASA-Goddard Space Flight Center are involved in observation of the new moon for scientific purposes. They hope their studies may ultimately help religious groups to determine more accurately the arrival of the new moon but for now, their focus on observation of the new moon is mathematical and theoretical.

They are hoping to determine, based on the testimony of witnesses, "How soon after the new Moon can the thin lunar crescent in the evening twilight be seen?"⁵¹ This question has long been asked by those who regularly observe the paths of the heavens. It was asked in Mesopotamia, in Egypt and in Palestine. It was asked in the medieval period and is still asked to this day. Doggett and others are asking the same question that was asked by the rabbis of the Talmud. Like the rabbis they have a number of theories to answer the query and need observation to verify the calculation. They explain,

In an effort to improve these algorithms...[B.E.S.] has developed a mathematical model wherein all the physical effects are quantified. This algorithm accounts for the brightness of the twilight sky, brightness variations across the face of the Moon, the clarity of the atmosphere at the observing site, and the complex physiology of the human eye. To distinguish between the rival models, we are collecting a series of observations that will delineate where on Earth's surface the Moon is visible in the night after a new Moon.⁵²

⁵¹ Doggett and others (1988), p.34.

⁵² Doggett and others (1988), p.34-35.

In an effort to gather the testimony of witnesses, Doggett and others created "Moonwatch—July 14, 1988".⁵³ They asked people to do what was done long ago to determine the beginning of the new month. They asked people to go out and look for the new moon and then to write and tell them what they saw, where they saw it, and how they saw it. They urge participation by explaining,

It's easy to join: all you need is a clear, flat western horizon. This is critical, since the Moon will be best visible when it is roughly 2-5 degrees above the true (ideal) horizon. Observers should be outside from roughly half an hour to one our after sunset. You may use the naked eye or binoculars. But try to spot the Moon with the unaided eye, even if you do use optical aid. If you find the crescent first with binoculars, it may be relatively easy to pick it up without them.⁵⁴

In hopes of gathering as much accurate information as possible, witnesses are asked to complete a questionnaire⁵⁵ and are encouraged to send drawings or photographs of what they saw. This procedure is reminiscent not only of the questions which the Mishna reports were asked to the witnesses,⁵⁶ but also of the practice observed by Rabban Gamliel in which he showed witnesses a chart of the moon at various phases in order to ascertain the validity of the testimony.⁵⁷

This practice, long observed by Jews but formally abandoned in favor of calculation since the third century of this era, is again popular and in wide use. It is popular, however, not for religious and theological reasons but rather for scientific and theoretic purposes. The response to Moonwatch was surprising but very welcome. Doggett writes,

⁵³ "Moonwatch II" was held this past spring but as of this writing the results are not yet published.

⁵⁴ Doggett and others (1988), p. 35

⁵⁵ See appendix for an example of the questionnaire used to obtain modern day evidence of the new moon.

⁵⁶ Mishnah RH 2:6.

⁵⁷ Mishnah RH 2:8.

We were gleefully overwhelmed by the response. We received roughly 2,000 letters in all, from every state and most Canadian provinces. Over half of these resulted from our Sky & Telescope article, the rest from other publicity. Observers came from all walks of life and ranged in age from 4 through 92. The Moonwatch became an excuse for many family outings, including a dozen or so that involved three generations. Several dozen large groups sent reports, typically from star parties sponsored by astronomy clubs. We were enchanted by the many stories, poems, pictures and drawings sent in.⁵⁸

This enthusiastic response provides evidence that people are interested in the moon and in its recurring cycles observed by the human eye. The success of "Moonwatch" indicates that if observation of the moon were to be encouraged from a religious and theological perspective, the involvement of Jews in observing the moon might also be widespread and popular. Renewal of this practice could help Jews today to become more aware of the natural cycles of both the moon and the earth. In doing this, we could also, become more sensitive to our own role as partners in caring for the heavens and the earth that are God's creation.

Kiddush levanah

Kiddush levanah provides a historical context and ritual into which contemporary Jews can place these revitalized Rosh Chodesh celebrations which involve men and women and observation of the moon. The celebration also needs to provide an opportunity for declaration and most importantly, blessings which recognize the relationship between God the Creator and people, the caretakers of that Creation.. "While the Quiddush Levanah is an all but forgotten ritual, it embodies much that might well be appealing to contemporary Jews and to the spirit of our age."⁵⁹

⁵⁸ Doggett and Schaefer (1989), p.373.

⁵⁹ Isaac Klein, p.267.

Kiddush levanah is one of the most picturesque ceremonies of the entire Jewish liturgy, yet it is one of the least well known. The rite is both graphic and highly symbolic, yet today it has fallen into a state of disuse. Although the ceremony remains an official part of Jewish liturgy, and as such is retained in scholarly works about and editions of the prayerbook, the Rabbinical bodies of all three major Jewish religious sectors in America have omitted *kiddush levanah* from their prayerbooks intended for regular use. To the best of my knowledge, it is presently observed by only the most *halakhically* scrupulous of Orthodox Jews.⁶⁰

Many synagogues include an announcement of the New Month on the Shabbat preceding its arrival. *Birkat Hachodesh* is a formulaic statement, offered indoors, from the bima. It is an announcement of a momentous natural event which takes place in an environment that is disconnected from the setting in which it will occur. This announcement is often set into beautiful meditations and readings. Prayers in which we recognize God as the Creator and the Renewer of months and years and seasons are offered by the community.⁶¹ These announcements are inspirational, and they help to sensitize people to the arrival of the new Hebrew month. And yet, even as we offer these blessings, we are removed from the very experience which we are praising.

Birkat levanah supplements and enhances *Birkat hachodesh*. It forces us to be involved with the cycle of the moon. *Birkat levanah* demands that we see the moon, that we observe its renewed appearance in the night sky. And then we can offer our praise and our blessings.

Liturgy for this ritual can be drawn from variety of places. The ancient texts still speak today, the traditional prayers still express the wonder and awe we feel at observing the new moon. In addition, contemporary liturgies have been compiled which can provide modern day creative interpretations and expressions of our reconnection

⁶⁰ Aron, p. 1.

⁶¹ For examples see, *Gates of Prayer* p.453; *Likrat Shabbat* p.45a-45b; *Shabbat Worship* (Wishire Boulevard Temple) p. 138; *Yotzer Libenu* (Congregation Beth El of the Sudbury River Valley) p. 124.

with the ever renewing cycle of the moon. Below are two prayers that capture the essence of this experience.⁶² These blessings express our wonder at observing the renewal of the moon. Their language includes women and men, and they build upon the traditional liturgies for this sacred moment.

Praise to You, Adonai our God,
Ruler of the endless universe.
You chanted a word,
and that word became—heaven!
You smiled and breathed forth suns and stars!
Seasons and cycles You gave to them;
they ever waltz
in their rhythmic courses.
They sing and rejoice
as they dance their Lover's will:
"God is our architect,
God's plan is good!"

To the moon You called:
"Polish yourself
bright and new!
Be a crown for my lovely people!
One day
they'll polish themselves
and be bright as you.
I'll be their Ruler.
They'll be my crown!"
Be praised then, Adonai,
for renewing the months of moons.⁶³

⁶² *Gates of the Home* offers a "Prayer for the New Moon" that can be recited when the New Moon is first visible, p.25-26. *Seasons of Our Joy* also suggests a ceremony for *Kiddush levanah*, p.229-230.

⁶³ Free rendering of *M'hadash Hodashim* by Burt Jacobson in *The Jewish Catalogue*, p.99. I have adapted it slightly to utilize inclusive language.

The people Israel
Do not count hours by the clock
Or years by the constant sun
We link our lives to the rhythms of the earth
We count our days by the cycles of the moon
From darkness to light
From birth to death and born again
Forever becoming
Appearing disappearing
in and out
The moon breaths
The soul of heaven.⁶⁴

We are increasingly distanced from the natural world, we seem to have little time for marveling at the wonders of creation: the petals of a flower, the wings of an eagle or the constant ongoing cycle of the moon. Our tradition has long recognized the importance of noticing these natural phenomena and of respond to them with words of praise to their maker, God the Creator. The words of Jonah Gerondi, a thirteenth century Spanish philosopher still have meaning for our world today. He wrote,

Even though the Holy One, Praised be He, is not visible to the human eye, He is discernable by virtue of His mighty acts and wonders...By virtue of his renewal of the months He reveals Himself to mankind and this is as though they were greeting His presence (Shekhinah).⁶⁵

This is the challenge that confronts us today. We need to recognize God's presence in the world around us. Observation of the cycles of the moon and offering blessings and praise to God who created and renews the moon is an enduring way of achieving this goal. It can bring us closer to the natural world, closer to the Creator and hopefully inspire us to participate in the ongoing process of creation in partnership with God.

⁶⁴ Lynn Gottlieb.

⁶⁵ Gerondi, Rabbeinu Yonah to Hilkhot Bay Mitsvot, Berakhot, end of Chapter 4, Tefillot Hashachar as cited by Aron, p.75.

Chapter IV
FESTIVAL OBSERVANCES WITHIN THE HEBREW CALENDAR:
Symbols and Rituals to enhance the relationships between
Creator, Created and Creation
from a Reform Perspective

INTRODUCTION

Agricultural Cycles

The Hebrew calendar at its very core is based upon the observance of the recurring cycles of the moon and the celebration of Rosh Chodesh is an opportunity for individuals to identify with this most basic of observable natural cycles. Through this identification, one can feel closer to God, the Creator, and more involved and invested in caring for the inimitable and irreplaceable objects of Divine creation. The Hebrew calendar also includes festival celebrations which are intimately tied not only to the cycles of the sun and the moon but to the seasons and the agricultural harvests as they occur in the Land of Israel. Our holiday celebrations reflect the cycles of nature with which our ancestors lived, but we often times fail to observe. By reclaiming and recasting these core environmentally focused elements of the holiday celebrations, we can become more aware of Creation and more responsible in caring for these precious gifts, the land, the seas, the air, and all the plants and animals, that has been entrusted to our care by God.

While these festivals have origins that are earlier than the Biblical period, Jewish sources first record these celebrations in the Torah. The Biblical text tells us,

Three times a year you shall hold a festival for Me: You shall observe the **Feast of Unleavened Bread**—eating unleavened bread for seven days as I have commanded you—at the set time in the month of Abib, for in it you went forth from Egypt; and none shall appear before me empty handed; and the **Feast of the Harvest**, of the first fruits of your work, of what you sow in the field; and the **Feast of Ingathering** at the end of the year, when you gather in the results of your work from the field...¹

¹ Exodus 23:14-16.

According to this passage from Exodus, the basis for our holiday observances of Pesach, Shavuot and Sukkot is agricultural.² Historical, theological, political and sociological interpretations and symbols, were added to this primary meaning, but at their core, these festivals, like Rosh Chodesh, are based upon observable events in the natural world. As Arthur Waskow writes,

...each one of them [the festivals] is richer in its meanings than we are liable to remember. Most of them relate to nature, to history and to our inner spiritual lives—and sometimes the same symbol can call forth all those levels of response... they fit together into a coherent whole... Indeed, they were intended to teach us how to experience more fully the profound patterns of the world—how to enrich them, nurture them, learn from them. So if we can learn how the cycle of the festivals works as a cycle, we can learn how to live better with the earth and air and water; how to live better with each other; and how to live better inside ourselves...³

The holidays with their cyclical essence can help us to identify with the natural world in which we live and upon which we depend for continued life. A diagram designed by Arthur Waskow illustrates the intimate connection of the holidays to the cycles of the sun the moon and the seasons.⁴

We continue to celebrate the festivals, but we, unlike our ancient ancestors, are no longer intimately connected to the cycles that are so central to their observance.

² Plaut comments, "Three times. שלש רגלים (*shalosh regalim*), by which name Passover, Shavuot, and Sukot came to be known. On these three festivals Israelites were bidden to make a pilgrimage (generally undertaken on foot) to the sanctuary. (רגלים is a plural of רגל, a word usually meaning foot. In post-biblical, as in modern Hebrew, 'three times' would be expressed by שלש פעמים, using the biblical word for 'beat' or 'step.' In both cases, a linguistic development from the foot's beat, or footstep, to 'time' is observable.) Since similar agricultural festivals seem to have been observed in ancient Canaan, this cultic calendar may have derived from there, for it clearly has no desert roots." p. 588.

³ Waskow, p. xviii.

⁴ See Appendix for diagram. Waskow, *Seasons...*, p. xviii. "...The first thing to notice in the basic pattern is that there are two cycles: one based on the sun (oval) and one on the moon (circle). In part, the two cycles are like each other; in part, they merge with each other. They are intended to reinforce each other, to teach the same lessons in two different ways..."

Long ago our people believed that if we celebrated the cycle, the cycle was more likely to continue. The rains would come when they were due, the sun would shine more warmly in its season, and the crops would grow—and die and grow again...⁵

Our celebrations most often focus on the historical events that are associated with each festival and we concentrate on the most basic universal concepts that the festivals have come to embody. Based on my own experiences and observations I would make the following broad generalizations. For many people, Pesach corresponds to the coming out of Egypt and expresses the value of freedom; Shavuot celebrates receiving the Torah on Mt. Sinai and expresses the value of study; and Sukkot commemorates the wilderness experience of the Israelites and expresses the value of providing shelter.⁶ The historic meaning and values expressed by these festivals is much broader than indicated by these brief statements. In the following sections devoted to festival observances, I will discuss the agricultural origins of each festival, based primarily on Biblical material. I will then explore the subsequent expression of those early associations, particularly as they have been incorporated or eliminated within Reform practice. I will then conclude each section with a suggestion for reclaiming and reemphasizing a particular ritual. These proposals are by no means the only ways of exploring the relationship between Creator, Created and Creation as expressed in festival observance. These ideas are meant to be a starting point for the essential task of using the Hebrew Calendar to be more intimately involved with the natural world in which we live.

⁵ Waskow, *Seasons*, p. xxi.

⁶ The development of each of these festivals will be discussed in greater detail further in this chapter.

The Reform Movement

As one who grew up in the Reform Movement and who is currently a student at the Reform Seminary I am most comfortable in discussing Reform practice and in suggesting innovations within this movement. My comments are not meant to be exclusionary and it is my ultimate hope that all Jews and all people will come to accept these ideas.

The previously mentioned most basic of historic associations and values are echoed in the descriptive statement of recommended festival celebrations by the Central Conference of American Rabbis.

...While the origins of the Festivals are bound up with the seasonal changes and the agricultural cycle of ancient Israel, each also commemorates an important event in the history of the Jewish people...Through these historical associations, the Festivals have remained significant in the life of the Jewish people even when they lived in the Diaspora, far from the land and its natural rhythms...The dates for celebrating the Festivals depend on the seasons as they occur in the Land of Israel. Thus, through the celebration of the Festivals, Jews, no matter where they live, feel a connection to the land of Israel. The re-establishment of the State of Israel has helped to renew the original agricultural significance of the Festivals for Jews throughout the world...⁷

Many Jews living in the Diaspora are not connected to the seasonal cycles of the lands where they live, let alone the seasonal cycles of the Land of Israel. Jews of the Diaspora celebrate the Festivals for historical associations and universalistic values rather than to develop feelings of intimacy with nature and the Creator. We need to reclaim those rituals and symbols that are based on "seasonal changes" and

⁷ Gates of the Seasons, p.60.

"agricultural cycles," and the Reform Movement is one of a variety of places which provides a supportive setting for pursuing this challenge.⁸

It is important before continuing a discussion of "Reform Practice" to discuss briefly the current ideology of the Reform Movement and its approach to festival symbols and celebration. Reform by its very definition resists defining and mandating ritual observance, yet, at the same time, it allows for connection with the past and innovation for the future.

Judaism emphasizes action rather than creed as the primary expression of a religious life, the means by which we strive to achieve universal justice and peace. Reform Judaism shares this emphasis on duty and obligation. Our founders stressed that the Jew's ethical responsibilities, personal and social are enjoined by God. The past century has taught us that the claims made upon us may begin with our ethical obligations but they must extend to many other aspects of Jewish living, including:...private prayer and public worship; daily religious observance; keeping the Sabbath and the holy days;...and other activities which promote the survival of the Jewish people and enhance its existence...⁹

Specific holidays, their meanings and suggestions for observance are discussed in, Gates of the Seasons: A Guide to the Jewish Year.¹⁰ The purpose of this book is well articulated in this statement by Simeon J. Maslin the Chairman of the Committee on Reform Jewish Practice.

In this book...certain ancient practices are recommended and others are not... new practices are also being

⁸ Other institutions and organizations which are responsive to an environmental awareness approach to Jewish life are discussed in Chapter IV and listed in the Appendix.

⁹ From The CCAR Centenary Perspective (1976), Section IV.

¹⁰ Gates of the Seasons is the third in a series of books published in 1983 by the CCAR, the first, A Shabbat Manual was published in 1972 and the second, Gates of Mizvah was published in 1979. While the Reform Movement had previously crafted platforms and issued Response literature A Shabbat Manual (as well as the subsequent publications) was the first "effort on the part of the Central Conference of American Rabbis to create old/new opportunities for Jewish living. It is also a major attempt of the Reform rabbinate to deal directly with Reform Halachah in specific form, with guidelines responsive to the needs and realities of Diaspora life." p. III.

recommended as *mitzvot*¹¹ ... It is our duty to study each and every tradition and, on the basis of that study, either adopt to it or to reject it. And it is our duty also to find new and contemporary modes for the expression of inchoate spiritual feelings...¹²

Reform Judaism provides an appropriate forum for reclaiming old aspects of the festivals that have been forgotten or discarded and revitalizing them for the modern era. There are, I believe, rituals and symbols of the ancient Festival celebrations, which have been rejected and discarded, that can be revived into contemporary practices.

I will survey Biblical and Mishnaic texts describing festival celebrations in search of agricultural symbols and rituals. I will then examine current Reform practice, as suggested in Gates of the Seasons, for inclusions and omissions of these practices. Finally, in the spirit of Reform Judaism, I will propose reclaiming rituals and symbols, drawn from the Biblical and Mishnaic materials, which will help to reestablish our connection with the cycles of the natural world and to express our role as partners with God in the work of creation. For it is only by doing this that we can fulfill the challenge articulated in Deuteronomy;

If you will earnestly heed the mitzvot I give you this day, to love YHWH you God and to serve Him with all your heart and all your soul, then I will favor your land with rain at the proper season—rain in autumn and rain in spring—and you will have an ample harvest of grain and wine and oil. I will assure abundance in the fields for your cattle. You will eat to contentment. Take care lest you be tempted to forsake God and turn to false gods in worship. For then the wrath of YHWH will be directed against you. He will close the heavens and hold back the rain; and the earth will not yield

¹¹ Maslin explains, *Mitzvah* is defined as "the key to authentic Jewish existence and to the sanctification of life. No English equivalent can adequately translate the term. Its root meaning is 'commandment,' but *mitzvah* has come to have broader meanings. It suggests the joy of doing something for the sake of others and for the sake of God, and it conveys still more: it also speaks of living Jewishly, of meeting life's challenges and opportunities in particular ways. All this is *mitzvah*. Doing one *mitzvah*, says our tradition, will lead us to do another and another." p.3.

¹² Maslin in the Forward to Gates of the Seasons, p.viii.

its produce. You will soon disappear from the good land which YHWH is giving you...¹³

PESACH

Background

The Festival of Pesach,¹⁴ as it is known to us today, was in Biblical times also known as *Chag Ha-aviv*,¹⁵ the Spring Festival and *Chag Ha-matzo*,¹⁶ the Festival of Unleavened Bread. At its earliest stages, it focused on the agricultural event in a farmer's year of preparing for the spring harvest. This celebration is defined in what the Torah describes as the Feast of Unleavened Bread.

You shall observe the Feast of Unleavened Bread—eating unleavened bread for seven days as I have commanded you—at the set time of the new moon of Abib, for in it you went forth from Egypt...¹⁷

From this passage the festival observance is simple and straight forward. The Israelites are to eat unleavened bread for the first seven days of the month of Aviv, commemorating the going out of Egypt at this same season in the past. Additional details for observing this feast are enumerated in the following passage,

This day shall be to you one of remembrance: you shall celebrate it as a festival to the Lord throughout the ages; you shall celebrate it as an institution for all time. Seven days you shall eat unleavened bread; on the very first day you shall remove leaven from your houses, for whoever

¹³ Deuteronomy 11:13-17 as translated by The Shalom Center.

¹⁴ Chag Hapesach (Exodus 12:17)

¹⁵ Deut. 16:1. A discussion of Aviv may be found in Chapter 1 of this work. As Isaac Klein explains, while Pesach in its earliest stages of development may have been known as the springtime festival, "as time passed, the agricultural theme of the festival was muted and the historical took precedence. However, a number of observances remain to celebrate the rebirth of nature. On the first day of Pesach, at Musaf, we recite the prayer for dew; on the second night we start counting the Omer; and on the Sabbath of the festival it is customary to read the Song of Songs with its description of spring. This constitutes our recognition that the forces in the physical environment which make for physical survival and well-being have a divine source." p.104-105.

¹⁶ Exodus 12:20.

¹⁷ Exodus 23:15 and Exodus 34:18.

eats leavened bread from the first day to the seventh day, that person shall be cut off from Israel. You shall celebrate a sacred occasion on the first day, and a sacred occasion of the seventh day; no work shall be done on them...You shall observe the [Feast of] Unleavened Bread, for on this very day I brought your ranks out of the land of Egypt; you shall observe this day throughout the ages as an institution for all time. In the first month, from the fourteenth day of the month at evening, you shall eat unleavened bread until the twenty-first day of the month at evening. No leaven shall be found in your houses for seven days...You shall eat nothing leavened; in all your settlements you shall eat unleavened bread.¹⁸

This observance, which involved extensive cleaning of the home of all leavened bread, a day of sacred convocation at both the beginning and conclusion of the festival,¹⁹ total abstinence from all eating leavened foods for seven days,²⁰ and severe punishment for those who did not observe the festival, may well reflect the early celebrations of the farmers in the land of Canaan.²¹ Waskow explains,

As for the farmers—in preparation for the harvest of spring barley and wheat, they may have cleared out from their homes and storehouses all the chametz, the sour dough, the starter dough they used to make bread rise. It may have felt right to them to celebrate the new crop by starting over—not only starting over for the years new crop, but starting over in their history by eating the most ancient bread of all, the flat unleavened bread—that was the beginning of the farmers food.²²

¹⁸ Exodus 12:14-20.

¹⁹ Goudeover argues that if this festival was indeed to mark the beginning of the harvest, then perhaps the seventh day was not a day of holy convocation. "Indeed it would be difficult to keep the seventh day of the Feast of Unleavened Bread as a holy assembly 'on which no work should be done' within the harvest time." p. 12. Thus he concludes that the harvest must have begun following the seventh day of the festival.

²⁰ According to Morgenstern these seven days were kept before the harvest began as a preparatory fast. For more details of this position see, "The Origin of Matzoth and the Matzoth-Festival." *AJL* (1917): 275-293.

²¹ Reifenberg argues there is evidence of agriculture in the area of Canaan as far back as 6000-3000 BCE. "The discovery of Dorothy Garrod of flint sickles, set in carved bone handles, in a cave on Mt. Carmel proves that the owners practiced the cultivation of grain. We have here the first evidence of man's contact with cereals. Wild wheat and wild barley were found by Aaronsohn on the slopes of Mount Hermon and in the Jordan Valley, and it is for this reason that many authors believe Palestine to be the cradle of agriculture." p. 80.

²² Waskow, *Seasons...*, p. 133. Kutsch also agrees with this analysis. He explains, "[The festival was probably taken over from the Canaanites. The main custom of the feast is the eating of unleavened bread or

In addition to this Feast of Unleavened Bread held in the springtime, the Torah also describes a Festival of the Paschal Lamb. The ritual for the festival is described in the following passage,

Go, pick out lambs for your families, and slaughter the passover offering. Take a bunch of hyssop,²³ dip it in the blood that is in the basin, and apply some of the blood that is in the basin to the lintel and to the two door posts. None of you shall go outside the door of his house until morning.²⁴

Like the Feast of Unleavened Bread, the origins of the Pesach Festival may have been adopted by the Israelites from their surrounding culture. The spring was the time when lambs and sheep were born and it may have been a common custom to ritually sacrifice one of these young animals in appreciation for a successful breeding period.

Originally the Passover was celebrated by transient breeders of sheep and goats, later by Israelites, to secure protection for their flocks prior to leaving the desert winter pasture for cultivated regions (Rost). The rite of the blood as well as the regulation [that no bone of the animal may be broken] had an apotropaic²⁵ significance.²⁶

mazzot. The required pilgrimage originally to a local sanctuary, later—after the cult centralization of Josiah—to Jerusalem, is secondary to the eating of mazzot.” p. 169.

²³ For additional references to מַיִן see also Leviticus 14:4, Numbers 19:6, 1 Kings 4:39 and Psalms 51:7. Zohary in *Plants of the Bible* explains, “Hyssop is now the conventional translation for *ezov*; but this was not always so, as their identity was inadequately attested. A particular source of this error lies in the fact that the well-known European hyssop (*Hyssopus*) does not grow in Israel or in the Sinai, while the Srian hyssop, *Origanum syriacum*, does grow abundantly there among the dwarf shrubbery, usually on stony ground... It is rare in the Sinai, where Moses ordered the people to take bunches of it, although there are frequent references to its use there...” pp. 96-97.

²⁴ Exodus 12:21-23.

²⁵ An apotropaic ritual is one designed to protect the performer of the rite against some perceived evil. It is characterized by magic, amulets and talismans as protection against demons and black magic.

²⁶ Kutsch, p. 170. This position is also held by Anderson who explains, “Even before the period of Moses shepherds observed this nomadic festival in the springtime at the first full moon just before setting out for summer pastures... The original purpose, still echoed faintly in the Old Epic tradition (Exod. 12:21-39), was to secure the welfare and fertility of the flocks when the baby lambs and goats were being born, and to drive away evil spirits, thought to be especially active at such a time...” p. 71.

The themes and purpose of this sacrificial ritual observed by the shepherds were not so very different from those of the Feast of Unleavened Bread observed by the farmers. Both took place at the turn of the season, as the crops were nearly ready for harvest and the young animals were being born into the world. Both expressed appreciation to the gods, and in the case of the Israelites to God, for sustaining the fields and the animals through the treacherous winter months and both expressed the anticipation for success at this period of renewal.

Modern scholars feel that the nomad army of liberated Israelites may have brought their shepherds' festival of freedom to the settled farmers of Canaan...The already settled farmers kept on celebrating their own spring festival of the unleavened bread and the new spring grain. They also accepted the shepherds' Pesach sacrifice into their celebration of springtime. As the invading nomads settled down, they preserved their own ceremonial of birth and liberation, and joined with their neighbors in the week-long feast of matzah...²⁷

"Many scholars believe that Pesach (as described in the Mishnah and as we know it today) is a fusion of two early festivals—one of shepherds, one of farmers—that welcomed spring in two quite different ways...²⁸ This combined festival is described in this Biblical passage,

Observe the month of Abib and offer a passover sacrifice to the Lord your God, for it was in the month of Abib, at night, that the Lord your God freed you from Egypt. You shall slaughter the passover sacrifice for the Lord your God, from the flock and the herd, in the place where the Lord your God will choose to establish His name. You shall not eat anything leavened with it; for seven days thereafter you shall eat unleavened bread, bread of distress—for you departed from the land of Egypt hurriedly—so that you may remember the day of your departure from the land of Egypt as long as you live. For seven days no leaven shall be found with you in all your territory, and none of the flesh of

²⁷ Waskow, *Seasons...*, p. 136.

²⁸ Waskow, *Seasons...*, p. 133.

what you slaughter on the evening of the first day shall be left until morning.²⁹

In the course of time the sacrificial festival of shepherd became the dominant prevailing theme in the Pesach observance as defined by the rabbis.

...by the time of the Second Temple, the crucial personal and communal elements of Passover had been unified.³⁰ It celebrated the spring equinox, the moment when the sun was born again...It celebrated Spring in the lambing of the flocks and the harvesting of barley...Pesach had become the quintessential festival of newness, creation, creativity, freedom...³¹

Later in the period of the Second Temple, under the influence of Hellenistic and Roman culture, this festival became a carefully ordered meal, based on the pattern of the symposium, the discussion banquets of the Greeks and the Romans.³² The Seder became the primary symbol of the festival, and while a connection with the agricultural origins was maintained through the day of the celebration and the eating of matzah, the symbolism has been reinterpreted. The close connection of the Jewish people to the Land of Israel and the harvest of wheat and barley has been greatly diminished.

The Mishnah goes into great detail about the structure and procedure for the Passover Seder but makes little mention of the early agricultural origins of the festival. The Mishnah and later sources develop the themes of freedom in connection to the

²⁹ Deuteronomy 16:1-4. Plaut comments, "From the flock and the herd. That is, from sheep and goats (the flock) and cattle (the 'herd'). Exodus 12:3 specifically says nothing about cattle. This difference is evidence of a development from an earlier practice (reflected in Exodus), after wider agricultural options had become available to a well-settled community (reflected in Deuteronomy). The contrast of the two passages caused the Rabbis a good deal of difficulty...[Plaut goes on to cite examples]." p. 1448.

³⁰ Goudoever posits, "The connection between the Festival of Unleavened Bread and Passover is an old one, in any case from exilic times...." p. 13. Anderson determines, "As we have noticed already, the primitive meaning of the ancient nomadic Passover festival was superseded by a radically new understanding, which is now preserved in all levels of the tradition, to the seventh-century book of Deuteronomy (Deut. 16:1-3)... "p. 75.

³¹ Waskow, *Seasons*..., p. 137.

³² For more information about the development of the seder see, Bokser, Baruch M. *The Origins of the Seder*. Berkeley, California: University of California Press, 1984.

celebration of Pesach. We celebrate not only the freedom of the Israelites from Egyptian bondage but we celebrate the future redemption of the entire world. The result of blending these two festivals is that since the period of the Talmud, observance has focused on the seder ritual, the commemorative pesach offering and issues of freedom and redemption rather than on the ancient farmers celebration anticipating the spring harvest.

This shift in focus, away from the agricultural, can be seen in the observance of Pesach recommended by the CCAR.

The highlight of Pesach observance is the Seder with its many symbolic foods and its elaborate liturgy, the Haggadah....As *zeman cherutenu*, the season of our liberation, Pesach is a constant reminder of our responsibility to those who are oppressed or enslaved physically, intellectually, or ideologically. On Pesach we express our solidarity with other members of the Jewish community who are unable to celebrate Passover in freedom.³³

There are however some rituals which date from the Mishnaic period that reflect the early farmer's festival and the injunctions of the Torah regarding the celebration of the Feast of Unleavened Bread. The Mishnah describes the practice of searching the house and removing from it all the leaven. This custom may have taken on additional significance as the Festival celebration developed, but, at its core, it echoes the ancient practice of the farmers discussed earlier in this document. By re-examining this observance and making it more prominent in our Pesach celebration, we can enhance the richness of the Seder ritual and our entire festival celebration. By renewing this, and other, agriculturally based rituals, we draw closer to the agricultural cycles and can hopefully come to feel close to the world of nature and to God, the Creator.

³³ Knobel, p.66.

The Mishnah provides the following guidelines to be used in searching the house for leaven:

אור ילארבעה עשר יבדקין
את־החמץ ילאור הנר. כל־
מקום שאין מכניסין בו חמץ אין
צריך בדיקה. וְלָמָּה אָמְרוּ יִשְׁתִּי
שורות במרתף? מקום שמכניסין
בו חמץ.

On the night of the fourteenth they must search for leaven by the light of a candle. Any place wherein they do not bring leaven does not require searching....³⁴

It goes on to provide more specific details:

יבדוק יבתוך המועד, לא בדק	רבי יהודה: אומר, בודקן יאור
בתוך המועד יבדוק ילאחר	ארבעה עשר, יבארבעה עשר
המועד, ומה־ישמשיר ייניחנו	שחרית, יובשעת ייביעור.
ייבציונעא, כדי שלא יהא צריך	ונחמים אומרים, לא בדק אור
בדיקה אחריו.	ארבעה עשר יבדוק בארבעה
	עשר, לא בדק בארבעה עשר

R. Judah says, They must search on the night of the fourteenth, or in the morning of the fourteenth, or at the time when it had to be burned. But the Sages say, If one had not searched during the night of the fourteenth let him search on the fourteenth, if he had not made the search on the fourteenth let him search during the Festival period, and if he had not effected the search during the Festival period he may make the search after the Festival period. And what one leaves out he should put away in a hidden place so that it should not be necessary to make another search.³⁵

³⁴ Mishnah Pesachim 1:1.

³⁵ Mishnah Pesachim 1:3.

Reform Observance

Among the many practices the CCAR suggests for current practice is the mitzvah of *Bedikat Chametz*, the search for leaven. While no mention is made of the pre-Biblical agricultural custom, the suggested practice clearly reflects the injunction of the Torah and the guidelines of the Mishnah.

Searching for leaven (*Bedikat chametz*) on the night before the first Seder is a Pesach custom that has special appeal for children. After the house has been cleaned for Pesach, a symbolic search for the last remains of leaven is made. At various places in the home the pieces of leaven are hidden. Then children, with flashlights or other illumination, search them out in the dark. The bread is gathered in a bag and burned or disposed of the next morning with the following blessing: Blessed are you, O Lord our God, Ruler of the Universe, Who hallows us with mitzvot and commands us to burn Chamets.³⁶

As presented here, there is no symbolic meaning to this ceremony, it has only "special appeal to children". *Bedikat Chametz* can fulfill the challenge the Reform Movement has set for itself of, "[finding] new and contemporary modes for the expression of inchoate spiritual feelings...."³⁷ The Reform Movement provides the context for reclaiming the Biblical and Mishnaic practice of searching for leaven and then placing it into a contemporary context.

Pesach, through the vehicle of the seder, is a time of asking questions. We perform customs and rites that are designed to elicit the question, "Why is this night different from all other nights? On all other nights we...why on this night do we...?" We go on to answer the questions, to explain and to teach. We draw connections from one generation to the next. We seek to identify with experiences of long ago, to share the

³⁶ Knobel, p.67-68.

³⁷ Maslin, in introduction to *Gates of the Seasons*, p.viii

pain and the joy, to model our relationships, with each other, with the land, and with God, on those of our ancestors from days gone by.

Suggestion— *Bedikat Chametz*

The ancient practice of cleaning the house of all leaven and the Mishnaic ritual of *Bedikat Chametz* is yet another way to fulfill these goals in a modern Pesach observance. This ceremony can be used to help modern, urban, consumption oriented, Jews to reconnect with the agricultural cycles, of not only the Biblical Land of Israel, but also with creation in the contemporary form of the land and its bounty, and God, the ultimate Creator.

Bedikat Chametz provides an opportunity to explain the agricultural origins of the Festival of Unleavened Bread. It provides an opportunity to discuss the agricultural milieu of Biblical ancestors and their resulting intimacy with the naturally occurring observable cycles of the land. They recognized these cycles and knew that their lives depended on its continued productivity. They also recognized that the land and its produce were gifts from God and thus were deserving of recognition and praise.

We, who buy bread in plastic wrappers and matzah in cardboard boxes, are oftentimes unaware of the origins of this leavened or unleavened bread. We would do well to recognize and remember that this sustenance comes not only from the grocery store but from the combined labors of bakers, farmers and God. A renewed ritual of *Bedikat Chametz* will not make us into urban wheat harvesters, but it can help us to explore and identify with this agricultural aspect of our past and agricultural cycles in our world today.

Bedikat Chametz can help us to reaffirm the partnership relationship in which we are involved as caretakers of God's creation. It is hoped that through this identification we can come to better appreciate the observable cycles of nature in our world today, and also appreciate the earth's bounty as a gift from the primary Creator. Ultimately, we can

use this ritual to help us in fulfilling our vital role as the Created ones, caring for the creation in partnership with the Creator.

SHAVUOT

The Festival of Shavuot,³⁸ as it is known to us today, is known in the Bible as *Chag Habikkurim*,³⁹ the Festival of the First Fruits, and as *Chag Hakatzi*,⁴⁰ the Festival of the Harvest. These two names reflect two strands that became woven together within the Biblical festival celebration. One strand involved bringing offerings of the first crops of the land,⁴¹ and a second strand involved bringing loaves of bread made from the first grains of the harvest to the Temple in Jerusalem. Together they celebrate the connection of the Israelite farmers to the land and to God their Provider and Creator.⁴² It was not until the Rabbinic period that the third strand, the historical association with the revelation at Mt. Sinai, became interwoven with, and ultimately superseded, the agricultural celebration of Shavuot.⁴³

Talmudic references⁴⁴ indicate that the focus of Shavuot came to be a celebration of God giving the Torah on Mt. Sinai to the Israelite people. Current Reform practice echoes this shift by centering Shavuot celebration around the event of

³⁸ Deuteronomy 16:9-10. "You shall count off seven weeks; start to count the seven weeks when the sickle is first put to the standing grain. Then shall you observe the Feast of Weeks for the Lord your God, offering your freewill contribution according as the Lord your God has blessed you." (See also Leviticus 23:15-16, 21) The name Shavuot refers to the festival which takes place at the conclusion of seven weeks of counting the omer that began at Pesach. There is much debate surrounding when this counting is to begin. This issue will not be discussed within the scope of this paper but the reader is urged to consult Gouda for a detailed analysis of the problem and bibliographic references.

³⁹ Exodus 34:22. "You shall observe the Feast of Weeks, of the first fruits of the wheat harvest..."

⁴⁰ Exodus 23:16.

⁴¹ As Blackman explains, "The term *Bikkurim*, first fruits refers to the products mentioned in Deuteronomy 8:8, wheat, barley, grape, fig, pomegranate, olive and date-honey or dates, the so-called seven species, which are typical of and illustrate the fame of the fruitfulness of Palestine." p.463.

⁴² According to Anderson, "Since the liturgy in Deuteronomy 26:5-9 was connected with a harvest festival, it is clear that it dates from a time well after Israel had settled in Canaan and had made the transition to agriculture." p. 112.

⁴³ This development and integration will be discussed at greater length later in this chapter.

⁴⁴ B. Shabbat 86b, B. Pesachim 68b.

Confirmation.⁴⁵ The agricultural origins of Shavuot have all but vanished from current Reform practice.⁴⁶ By bringing this element back into our festival celebration, we can draw closer to the natural cycles of the earth and hopefully to the Creator.

Background

Shavuot, as the Festival of the First Fruits, is well documented in the various books of the Bible. This early strand of the Shavuot celebration focused on the farmers bringing the first of their crops (*bikkurim*) to the Temple in Jerusalem.

On the day of first fruits, your Feast of Weeks, which you bring an offering of new grain to the Lord, you shall observe a holy day.⁴⁷

The significance of this event and the details of this observance are further defined in this passage:

When you enter the land that the Lord your God is giving you as a heritage, and you possess it and settle in it, you shall take some of the first fruit of the soil, which you harvest from the land that the Lord your God is giving you, put it in a basket and go to the place where the Lord your God will choose to establish His name. You shall go to the priest in charge at that time and say to him, "I acknowledge this day before the Lord your God that I have entered the land that the Lord swore to our fathers to assign us." The priest shall take the basket from your hand and set it down in front of the altar of the Lord your God. You shall then recite as follows before the Lord your God: "My father was

⁴⁵ Maslin, in writing for the CCAR explains, "It is a mitzvah to be confirmed in the Jewish religion as a member of the Jewish people. Originally, the ceremony of Confirmation was established by the Reform movement as a means of educating young women equally with young men and keeping both in the process of Jewish education beyond the age of thirteen...Its purpose is to encourage the intellectual and spiritual growth of the young people, to strengthen the bond between them and the Israelites who received the Torah at Mt. Sinai..."p.21-22.

⁴⁶ The connection between Shavuot and Reform Judaism may be reappearing and becoming more vital on the Reform *Kibbutzim*, Yahel and Lotan. In general, the *Kibbutz* Movement in Israel has maintained a close connection to the land and its bounty, and while a *kibbutz* community may not celebrate the harvest in a religious setting many *kibbutzim* do hold celebrations for Shavuot. The suggestions being made in this document are primarily directed toward Reform communities in the Diaspora although they may also have relevance for the Progressive Movement in Israel.

⁴⁷ Numbers 28:26.

a fugitive Aramean...Wherefore I now bring the first fruits of the soil which You, O Lord, have given me." You shall leave it before the Lord your God and bow low before the Lord your God. And you shall enjoy, together with the Levite and the stranger in your midst, all the bounty that the Lord your God has bestowed upon you and your household."⁴⁸

As with other rituals which focused on the Temple and the role of the priests, this majestic ritual has been abandoned since the destruction of the the Temple in Jerusalem. The practice may no longer be appropriate, but the theme is still vibrant and vital to our day. In its essence, this bringing of *bikkurim* was a connection with the past and with the land. The land on which the people lived and from which they reaped their sustenance was seen not as a private possession of the farmer and his or her ancestors. The land was understood to be the property of God of which the farmer was welcome to share the bounty. This understanding remained as long as the farmer maintained the attitude of being in partnership with God, continued to thank God for these great gifts, and maintained the quality of the land.

The mitzvah of bringing *bikkurim* to the Beit Hamikdash is a mitzvah which contains a testimony of great significance. Each Israelite thereby testifies—in the place where the Divine Name dwells—that he is not ungrateful or haughty; that he has not forgotten God's lovingkindness.⁴⁹

Bringing this offering was both a sign of partnership and an expression of rejoicing.

Do not rejoice merely in what the earth yields to you, but rather let earth and heaven be joined; the beautiful blessing is of the earth, the holiness id of heaven. God brings blessings to you and you should raise yourself toward Him in sanctity.⁵⁰

⁴⁸ Deuteronomy 26:1-11.

⁴⁹ K'rov, Vol. 3 p.182.

⁵⁰ Yisrael Eidad, Hegyonot Mikra (Jerusalem: Karta, 1972), p.249. As cited in Plaut p.1454.

According to later Mishnaic tradition, the bringing of these first fruits was a spectacular event with specific choreography.

משנה ג
הַקְרוּבִים מְבִיאִים הַתְּאֲנִים
וְהַעֲנָבִים, וְהַרְחֹקִים מְבִיאִים
יְרוּגָרוֹת וְצִמּוּקִים. וְהַשּׁוֹר הוֹלֵךְ
לִפְנֵיהֶם וְקָרְנָיו מְצֹפּוֹת זָהָב
וְעֵטְרֵת שֶׁל זָיִת בְּרֹאשׁוֹ. וְהַחֲלִיל
מְכָה לִפְנֵיהֶם, עַד שֶׁהִגִּיעוּ קְרוֹב
לִירוּשָׁלַיִם. הִגִּיעוּ קְרוֹב לִירוּשָׁלַיִם
שָׁלְחוּ לִפְנֵיהֶם וְעָטְרוּ אֶת־
בְּכוֹרֵיהֶם. הַפְּחוֹת הַסַּעֲגִים
וְהַגְּזָרִים יוֹצְאִים לְקִרְאתָם. וְלִפִּי
כְבוֹד הַנְּכֻסִים הָיוּ יוֹצְאִים. וְכָל־
בְּעָלֵי אוֹמְנֵי שְׂבִירֵי שְׁלֵלִים עוֹמְדִים
מִלִּפְנֵיהֶם מְשֹׁאֵלִין בְּשִׁלּוּמָם,
אֲחִינוּ אֲנִשֵּׁי הַמְּקוֹם פְּלוּנֵי, בְּאִתָּם
לְשִׁלּוֹם.

משנה ח
הַעֲשִׂירִים מְבִיאִים בְּכוֹרֵיהֶם
בְּקִלְתוֹת שֶׁל כֶּסֶף וְשֶׁל זָהָב,
וְהַעֲנָיִים מְבִיאִין אוֹתָם מִסְּלֵי
נְצָרִים שֶׁל עֲרֵבָה קְלוּפָה. וְהַסְּלֵים
וְהַבְּכוֹרִים נִיחָנִין לַכֹּהֲנִים.

משנה ב
בִּיצַד יַמְעֲלִין אֶת־הַבְּכוֹרִים? כָּל־
הַעֲיָרוֹת שֶׁבְּמַעֲמַד מִתְכַּנְּסוֹת
לְעִיר שֶׁל מַעֲמַד, וְלִנְיָן בְּרַחֲבָה
שֶׁל עִיר, וְלֹא הָיוּ נִכְנָסִין לְבָתִּים;
וְלִמְשָׁכִים הָיָה הַמְּמוֹנָה אוֹמֵר,
'קוּמוּ וְנַעֲלֶה צִיּוֹן אֶל־בֵּית ה'
אֱלֹהֵינוּ.

משנה ו
יְעוּדָהוּ הַסֵּל עַל כְּתָפוֹי, קוֹרֵא
מִהֲגֵדְתִי הַיּוֹם לַה' אֱלֹהֵיךָ עַד
שְׂגוּמָר כָּל־הַפְּרִשָׁה. רַבִּי יְהוּדָה
אוֹמֵר, עַד יֵאָרְמִי אוֹבֵד אָבִי. הִגִּיעַ
לְאֲרָמִי אוֹבֵד אָבִי, מוֹרִיד הַסֵּל
מֵעַל כְּתָפוֹ וְאוֹחֲזוֹ בְּשַׁפְּתוֹתָיו.
וְכֵהֵן מְנִיחַ יָדוֹ תַּחְתָּיו, וּמְנִיפוֹי,
וְקוֹרֵא מֵאֲרָמִי אוֹבֵד אָבִי עַד שֶׁהוּא
עוֹמֵר כָּל־הַפְּרִשָׁה. וּמְנִיחוֹ בְּצַד
הַמּוֹבָח וְהַשְּׂתַחֲוָה וְנִצָּא.

Entire towns would come together to Jerusalem.⁵¹ Where they would be met by the playing of the flute.⁵² Each would make the formulaic proclamation⁵³ and the first

⁵¹ Mishnah Bikkurim 3:2

⁵² Mishnah Bikkurim 3:3

⁵³ Mishnah Bikkurim 3:6. Great sensitivity is shown in the Mishnah regarding this proclamation. Mishnah Bikkurim 3:7 indicates that those who know the formulas used to recite and those who did not would repeat it following the priests. But this apparently made those who did not know the formula were

fruits, in wicker baskets overlaid with silver and gold, were given to the priests.⁵⁴ Even the way of placing the fruits in the basket was ritually proscribed.

The seven species are to be brought in seven separate baskets. If one places them all in one basket, however, he nevertheless fulfills his obligation. In the later case, he places the barley at the bottom, with some object over the barley (so that the barley might not commingle with another species). Above these, he puts the wheat, which he again covers with another object. He follows the same procedure with the remaining species. And about all of them, he places clusters of grapes.⁵⁵

In addition to the Festival of *Bikkurim*, Shavuot, as described in the Bible, included the Festival of the Harvest,⁵⁶ which also involved bringing an offering to Jerusalem to show appreciation to God for the success of the harvest. While the *bikkurim* offering was made of a variety of fruits and grains, the offering that was brought in connection with the Festival of the Harvest was an offering of two loaves of bread made from the newly reaped grain. This aspect of the festival may have been the concluding element of the counting of the omer in the seven weeks that had passed since Pesach.

And from the day on which you bring the sheaf of elevation offering—the day after the Sabbath—you shall count off seven weeks. They must be complete: you must count until the day after the seventh week—fifty days; then you shall bring an offering of new grain to the Lord. You shall bring from your settlements two loaves of bread as an elevation offering; each shall be made of two-tenths of a measure of choice flour, baked after leavening, as first fruits to the Lord...On that same day you shall hold a celebration; it shall be a sacred occasion for you; you shall not work at

embarrassed and they refrained from coming. Thus it was decided that everyone would repeat after the priests so that know one would feel ashamed.

⁵⁴ Mishnah Bikkurim 3:8.

⁵⁵ Kitov, Vol. III p. 181-182. (Based on Tosefta Bikkurim 2).

⁵⁶ Exodus 23:16. "And the Feast of the Harvest, of the first fruits of your work, of what you sow in the field..."

your occupations. This is a law for all time in your settlements, throughout the ages.⁵⁷

This event is laden with symbolism and allusions. Bloch summarizes their significance in a succinct fashion. He explains,

The primary ritual of Shavuot was a "new meal offering" (*minchah chadashah*, Lev.23:16), which consisted of two loaves of bread baked from flour of the new crop of wheat. The technical designation of this offering was *lechem tenufah*, ("wave-loaves", Lev. 23:17). This name paralleled the designation of the Omer (Lev.23:15). The waving of an offering was, according to the Talmud, a prayerful act, imploring God to contain harmful winds and bad weather conditions (Menachot 62a). The Shavuot wave-loaves invoked God's blessing of fruit (Rosh Hashanah 16a).⁵⁸

It is the combination of these two agricultural observances, the bringing of first fruits and the bringing of the loaves of bread that constitute the centrality of the Shavuot celebration in the period prior to the destruction of the Temple.⁵⁹

Shavuot, as we know it from the Torah, is an agricultural celebration, but unlike the other pilgrimage festivals, it is not explicitly tied to a particular historical event, as Pesach is linked to the Exodus from Egypt and Sukkot to the wilderness experience.

Shavuot is the only one of the great festivals for which the Torah gives no historical-political connection, but only mentions the natural and agricultural cycle. Yet, later tradition identifies it as the anniversary of God's giving the Torah at Mt. Sinai...⁶⁰

⁵⁷ Leviticus 23:15-20. Regarding the offering of the loaves of bread Plaut comments, "*Two Loaves of Bread*. This explains the *offering of new grain* in verse 16. These loaves, exceptionally, are to be leavened; they are not to be burned on the altar (cf. 2:11, 7:13). Perhaps the loaves were regarded as a thanksgiving offering and therefore leavened like those of 7:13." p.928.

⁵⁸ Bloch, p.245.

⁵⁹ The destruction of the Temple meant the end of the sacrificial component of Jewish life. Thus offerings were no longer brought to Jerusalem, and the tone and symbolism of this holiday celebration underwent a major renovation. Jacobs writes, "In rabbinic times a remarkable transformation took place...The transformation was in accord with a process that was to be observed in the Bible in which the ancient agricultural feasts were transformed into festivals marking the anniversary of significant historical events in the life of the people." p.1320.

⁶⁰ Waskow, *Seasons...*, p. 185.

When the offering of first fruits was no longer a permissible way to celebrate Shavuot, a need arose to reinterpret the message and the symbolism of the festival. Shavuot came to be associated with the anniversary of the giving of the Torah at Mt. Sinai based upon the Biblical passage, "On the third new moon after the Israelites had gone forth from the land of Egypt, on that very day, they entered the wilderness of Sinai."⁶¹ When Shavuot came to be associated with the revelation at Mt. Sinai is a question of debate among scholars. While the tradition may have existed earlier, the first Rabbinic references to this association are from the second century,⁶² and the references are not truly explicit until the third century.⁶³ There are also scholars who date the transformation of the festival before the present era.

It is possible that the Pharisees insisted that Shavuot be observed on a fixed day because they wished to affirm that the festival commemorated the Sinaitic theophany which occurred on the fiftieth day after the Exodus...and because a purely agricultural festival had little meaning for the town dwellers who made up the Pharisaic party.⁶⁴

While we can not know when the transformation in the observance of Shavuot took place, we can be sure, that today, Shavuot is known primarily for its identification with the experience at Sinai and secondarily for commemorating agricultural life of the Biblical period.

With the introduction of a new motif [Sinaitic Revelation], the former agricultural facets of Shavuot were practically erased...Yet memory of the ancient Shavuot was by no means totally obliterated, even though it has been obscured. Thus there is a reminder of the Jewish agricultural society in the Torah portion which is read on the second day of Shavuot (Deut 16:9). The Musaf Amidah includes the Biblical text pertaining to the offering of

⁶¹ Exodus 19:1.

⁶² B. Talmud, Shabbat 86b.

⁶³ B. Talmud, Pesachim 68b.

⁶⁴ Jacobs p. 1320 from L. Finkelstein, Pharisees [1962], 115-118, 641-654.

bikkurim. The reading of the Book of Ruth and the flowers and plants which decorate the synagogues are reminders of bucolic scenes from the distant past.⁶⁵

Reform Observance

The transition from the agricultural reasons for celebrating Shavuot to the historical connection which is recorded in the Talmud is clearly evident in current practice as suggested by the CCAR.

Current observance is based on the Talmudic identification of Shavuot with the events at Sinai...On Shavuot, the Jewish people celebrate their covenantal relationship with God and reaffirm their commitment to a Jewish life of study and practice...The ceremony of Confirmation is a Reform innovation and has added a new dimension to the meaning of the Festival...⁶⁶

The only vestige of the agricultural festival of Shavuot is found in this statement of Reform observance:

It is customary to decorate one's home and synagogue with greens and fresh flowers on Shavuot. The greenery is a reminder of the ancient practice of bringing first fruits (*bikkurim*) to the Temple in Jerusalem. It also calls to mind our hopes for an abundant harvest.⁶⁷

The greenery is a reminder, but it is a distant association and one which does not seem to truly maintain a connection with the ancient agricultural celebration of Shavuot. The Reform movement has even tried to replace the ceremony of *bikkurim* with Confirmation, but this too is an abstract association, and one which may be meaningful in its association with Torah and learning but it does not help people today identify more closely with the land and with God as the Creator. Knobel writes,

When the Temple stood, Jews brought offerings of their first fruits, *Bikurim*, to the Temple on Shavuot. Today, parents

⁶⁵ Bloch, p.246.

⁶⁶ Knobel, p.76.

⁶⁷ Knobel, p.77.

bring their children to participate in Confirmation. These young people are the first fruits of each year's harvest....⁶⁸

This analogy is beautiful and meaningful, but it leaves behind a rich and important aspect of the Shavuot celebration, the involvement of the people with the land that provides for their continued existence.

Suggestion—*Bikkurim*

Shavuot, at its agricultural essence, represents the role of people in partnership with God regarding using and caring for the earth and its produce. This is an element of our tradition which we must include and cannot afford to abandon. Waskow writes,

Shavuot celebrates the success of the spring growing season—the growth of new sprouts of spring into full grown plants at summertime. But there is a special twist in this celebration of growth. The two loaves of bread are unusual—for they are explicitly the product of human labor. Not grain, not sheep or lambs or goats, straight from God's hand—but bread, mixed and kneaded and leavened and baked, is the distinctive offering of Shavuot. So Shavuot celebrates the partnership of human beings with God in giving food to the world. Having received from God the rain, the seed, the sunshine, we give back to God not just a dividend on the natural growth, but the value we ourselves have added to it.⁶⁹

By incorporating this perspective of partnership into our observance of Shavuot, we can hopefully reconnect with the agricultural cycles of our world and reaffirm our own role in the partnership of providing food.⁷⁰ The practice of decorating the home and synagogue with greens, can be revitalized and tied back to its original form, bringing *bikkurim*, the first fruits. We can decorate with baskets of the seven species. Each family

⁶⁸ Knobel, p.77.

⁶⁹ Waskow, *Seasons...*, p.187.

⁷⁰ Lowdermilk writes, "Land is the silent partner of the tillers of the soil in the growing of food. This partnership of land and farmer is the rock of our civilization; if either member of this partnership weakens or fails, the whole structure of civilization built upon it likewise weakens and fails. Nations rise or fall upon their food supply, and hence ultimately upon the condition of the land." p.20.

can come to the synagogue with a basket and make a proclamation. The baskets can then be given to the hungry and homeless in the community. What better way to show partnership than to show thanks to God for providing the basic food stuffs, and then give something of ourselves by turning that gift into food for others.

Another aspect of *bikkurim* is the offering of the loaves of wheat bread from newly grown grain. We can include a bread baking workshop in conjunction with the Shavuot celebration. Maybe the group would grind the wheat and then proceed with the baking. Discussion could include; the agricultural origins of Shavuot; the current systems and procedures for growing grain; and God as the provider of the wheat and people as the bakers of the bread. We are not usually involved with the process by which bread comes into our lives, and this is an opportunity to reconnect with the ultimate Provider and to recognize the vital role we all play, together with God, in providing food and caring for the land.

Bikkurim, the bringing the first fruits, like the experience of *Bedikat Chametz*, can help us to reaffirm the partnership relationship in which we are involved as caretakers of God's creation.

SUKKOT

Background

The Festival of Sukkot, as it is known to us today, was in Biblical times known as as *Chag Haasif*⁷¹ the Feast of Ingathering and as *Chag Hasukkot*⁷² the Feast of Tabernacles or Booths. Like the early festivals of Pesach and Shavuot, Sukkot focused on an event in the agricultural cycle of the farmer, the completion of the fall harvest. The Torah describes,

⁷¹ Exodus 23:16, 34:22.

⁷² Leviticus 23:34, Deuteronomy 16:13.

...and the **Feast of Ingathering** at the end of the year,
when you gather in the results of your work from the field.⁷³

...and the **Feast of Ingathering** at the turn of the year...⁷⁴

This Feast of Ingathering was the time when the farmer was able to thank God for the success of the crops and begin preparing for the next season by anticipating for rain. This agricultural festival, over the course of time, developed a historical association as well. It came to be associated with the Israelites dwelling in the wilderness of Sinai, in temporary fragile shelters.

You shall live in booths seven days; all citizens of Israel shall live in booths, in order that future generations may know that I made the Israelite people live in booths when I brought them out of the land of Egypt...⁷⁵

But even with this historical connection, the emphasis on agricultural imagery and the connection to the natural world was maintained.⁷⁶ Ultimately, the Torah describes the fall harvest festival as the Feast of Booths, tied to the Ingathering of the Harvest.

After the **ingathering** from your threshing floor and your vat, you shall hold the **Feast of Booths** for seven days.⁷⁷

On the fifteenth day of this seventh month there shall be a **Feast of Booths** to the Lord, [to last] seven days... Mark on the fifteenth day of the seventh month, when you have **gathered** in the yield of your land, you shall observe the festival of the Lord seven days... You shall **live in booths** seven days...⁷⁸

⁷³ Exodus 23:16b.

⁷⁴ Exodus 34:22

⁷⁵ Leviticus 23:42-43

⁷⁶ See Leviticus 23:40 for description of the role of the "lulav and etrog" as agricultural symbols of the festival.

⁷⁷ Deuteronomy 16:13.

⁷⁸ Leviticus 23:34,39,42

The booths of the Festival of Sukkot may be related to The Tabernacle.⁷⁹ They may be related to shelters the Israelites dwelt in while journeying in the wilderness of Sinai, or they may represent the booths that the farmers dwelt in during the harvest season. The debate over the form and meaning of the booths can be found as far back as the Talmud, yet the rabbis of the Talmud are not in agreement about the actual form of these "booths".

דחניא כ"י בסוכות הוישבת את בני ישראל ענני כבוד הוי דברי ר' אליעזר דר"ע אמר סוכות ממשי

For it has been taught: *For I made the children of Israel to dwell in booths.* (Lev 23:43) These [booths] were clouds of glory, so [says] R. Eliezer.

R. Akiba says, They made for themselves real booths.⁸⁰

The different perceptions that R. Eliezer and R. Akiba hold may be based on their different life experiences. "R. Eliezer was a farmer in his youth and therefore was probably not intimately familiar with either the nomadic life of the shepherds or with the change of seasons in the Sinai wilderness".⁸¹ He perceived that the Israelites dwelt in tents while they were in the wilderness of Sinai and also that this was the beginning of the rainy season in Israel. These two perceptions led him to reject the idea of real booths and opt instead for the imagery of "the Lord's clouds" providing shelter for the people.

On the other hand, Rabbi Akiba, who had been a shepherd for many years may have thought,

⁷⁹ There are some scholars who uphold that the Feast of Booths is not primarily an agricultural festival but rather represents, at its core, Temple and Altar dedication. As Goudoever writes, "We conclude: the basic character of the feast is Temple dedication. It is kept at the end of the harvest, the celebrants live in booths made from the various fruits of the land. The booths might be a kind of sanctuary, and the temple a kind of booth. The commemoration of the wanderings through the wilderness was not an important motive for holding this feast. The water libation and the illumination were characteristic rites of this feast, the first to secure rain and the last to celebrate the full moon in the autumn..." p.35.

⁸⁰ B. Sukkah 11b.

⁸¹ Hareuveni, ...Biblical Heritage, p.70.

If the exodus from Egypt, which took place in the first month, coincided with the month of Aviv, then in the seventh month, after six months of wandering in the wilderness, the Israelites were in the season when almost all pasturage in the Sinai desert had disappeared, and the cisterns and pools had dried up. This was the time to gather up the flocks and the people and move to a desert oasis of date palm groves, where water abounds...⁸²

Akiba would have been led to conclude, based on this supposition, that the Israelites had real, not metaphoric booths, as protection from the elements. This perception is reinforced by events that still take place today.

Today, as then, wandering shepherds gather at oases during the season of Sukkot...In these oases people set up camp in booths rather than tents. The booths are built of palm wood and palm fronds and are more durable and convenient than tents...Rabbi Akiva's assertion that the Israelites made real booths is proven, it would seem, by this mode of life, typical of nomads in the Sinai desert today, as well as in the days of Rabbi Akiva and in the time of the exodus from Egypt...⁸³

Regardless of the form of the temporary shelters or the "original objective" of the Festival of Booths, certain elements emerge as central to the observance: the building of booths to dwell in during the festival; the use of lulav and etrog; appreciation of the fruits of the harvest and the natural elements that caused them to thrive. Whereas the agricultural celebrations of Pesach and Shavuot came to be overshadowed by their later historical aspects, Sukkot merged the historical and the natural and remained connected to the agricultural roots and imagery of its early observance.

A connection to the land emerges as central to this celebration of booths at the ingathering of the harvest. In conjunction with this appreciation of the land, there is also a seasonal connection to water, and particularly to rain. "For in the Land of Israel, six

⁸² Hereuveni, ...*Biblical Heritage*, p. 70, 75.

⁸³ Hereuveni, ...*Biblical Heritage*, p. 75.

months of dry weather come to an end—usually around the time of Sukkot. If the drought lasts longer, it can bring disaster.⁶⁴ The success or failure of the crops and thereby the life or death of the people was intimately connected to the correct amount of rain falling at the correct times.

Several Biblical passages indicate a relationship between the season of ingathering and the falling of rain. Moses reminds the Israelites of God's eternal promise, "I will grant the rain for your land in season, the early rain and the late. You shall gather in your new grain and wine and oil."⁶⁵ There is also evidence of the connection between Sukkot and rain in this declaration of Zechariah,

All who survive of all those nations that came up against Jerusalem shall make a pilgrimage year by year to bow low to the King Lord of Hosts and to observe the Feast of Booths. Any of the earths communities that does not make the pilgrimage to Jerusalem to bow low to the King Lord of Hosts shall receive no rain.⁶⁶

The Israelites felt there was a cause and effect relationship between their actions and God providing them with the rain needed for their crops.

Should the heavens be shut up and there be no rain because they have sinned against You, and then they pray toward this place and acknowledge Your name and repent of their sins, because You humbled them, may You hear in heaven and pardon the sin of Your servants, Your people Israel, when You have shown them the proper way in

⁶⁴ Waskow, *Seasons...*, p. 53. Miller and Hayes indicate, "Palestine has two main seasons: a warm summer that is dry and rainless and a cool winter with rains rolling in from the Mediterranean. Sometime in October the first of the 'early rains' moistens the ground enough for plowing and planting. The growing season follows, with most of the necessary moisture coming in the form of sudden downpours... The 'late rains' of April and May are needed to help the crops reach full maturity, and normally they are the last of the rains..." p. 49.

⁶⁵ Deuteronomy 11:14. Also Deuteronomy 28:12, "The Lord will open for you His bounteous store, the heavens, to provide rain for your land in season and to bless all your undertakings." A connection can be seen in Leviticus 26:3-4 as well, "If you follow my laws and faithfully observe my commandment, I will grant your rains in their season, so that the earth shall yield its produce and the trees of the field their fruit."

⁶⁶ Zechariah 14:16-17. According to Seltzer, "The first half of the Book of Zechariah probably dates from the 6th century BCE while the second half (chapters 9-14) are probably from the later post-exilic period." p. 45.

which they are to walk, and send down rain upon the land that You gave to Your people as their heritage...⁸⁷

This cause and effect dynamic concerning rain, in which rain is either bestowed or denied to the people based on their actions, is most clearly described in the competition between Baal and Elijah in I Kings 18.⁸⁸

In this story, there is a severe famine in Samaria, and Elijah is told by God, "Go, appear before Ahab; then I will send rain upon the earth."⁸⁹ A contest ensues, designed to determine if Baal, the local Canaanite god or Yahweh, the God of Israel, is more powerful.⁹⁰ After performing a series of challenging rituals Elijah prevails and the story concludes. Elijah says to Ahab, "Go up, eat and drink, for there is a rumbling of [approaching] rain."⁹¹ A servant then reports, "A cloud as small as a man's hand is rising in the west"⁹² to which Elijah responds, "Go say to Ahab, 'Hitch up [your chariot] and go down before the rain stops you."⁹³ The final image of the story is, "...the sky grew black with clouds; there was wind and a heavy downpour fell...The hand of the Lord had come upon Elijah."⁹⁴

This story in I Kings, and the other Biblical citations about rain can be best understood against the background of the Canaanite religious beliefs.⁹⁵ The Israelites

⁸⁷ I Kings 8:36. Repeated in II Chronicles 6:26-27.

⁸⁸ Anderson on pp. 272-275. Dr. Alan Cooper has pointed out that evidence of this relationship can also be found throughout the Psalms. He points specifically to Psalms 72:6-7. "Let him be like rain that fall on a mown field, like a downpour of rain on the ground, that the righteous may flourish in his time, and well-being abound, till the moon is no more." This passage, according to Cooper indicates the Israelite understanding that activity in the cosmos focuses on the human realm. Ethical behavior in the world will bring these 'natural' occurrences as well as political impacts."

⁸⁹ I Kings 18:1.

⁹⁰ The transition of the Israelites from worshipping many local gods and Yahweh to sole commitment to Yahweh as the One God of Israel, is a subject of great discussion. It will not be pursued here but is discussed by Miller and Hayes on pp. 109-112, by Seltzer on pp. 34-39 and by Anderson on pp. 182-193.

⁹¹ I Kings 18:41.

⁹² I Kings 18:44.

⁹³ I Kings 18:44.

⁹⁴ I Kings 18:45-46.

⁹⁵ Albright in Yahweh and the Gods of Canaan writes (in 1965), "The religion of the Canaanites is incomparably better known now than it was twenty-five years ago, thanks to the discoveries at Ugarit..."p. 115.

came into contact with these practices upon their entry into Canaan and integrated many of these rites and beliefs into their own religious system. Evidence of prayers and rites for rain can be found in the historical practices of various groups in the region and it is likely that the Israelite practice was directly derived from the rain rituals of the Canaanites.

The Canaanite understanding of rain has to do with the power of various gods and their interaction with each other.⁹⁶

The Baal of a region is the "lord" or "owner" of the land; its fertility is dependent upon sexual relations between him and his consort. When the rains came and the earth and water mingled, the mysterious powers of fertility stirred again. New life was resurrected after the barrenness of winter. This astonishing revival of nature, people believed, was due to sexual intercourse between Baal and his partner, Baalath...⁹⁷

The Canaanites however were not passive participants in this ritualistic provision of rain. The Canaanites believed that they could show the gods what they wanted by acting out, by modeling, the desired effect.

...Farmers were not mere spectators of the sacred marriage. It was believed that by ritually enacting the drama of Baal it was possible to assist—through magical power—the fertility powers to reach their consummation, and thereby to insure the welfare and prosperity of the land...The kind of magic in question is often called sympathetic or imitative magic.⁹⁸ It rests on the assumption that when persons imitate the action of the gods, a power is released to bring that action about (For example: the

⁹⁶ Concerning the broader religious beliefs of the Canaanites, Albright, in Yahweh and the Gods of Canaan, urges us to, "bear in mind, that an actual ecological situation must be presupposed. The god or goddess of fertility comes to life with the growth of vegetation. He or she dies when vegetation dies...in Mediterranean climate, because of summer drought. In irrigated regions the god or goddess of vegetation is brought to life by annual or seasonal flooding." p. 126.

⁹⁷ Anderson, p. 186.

⁹⁸ For a discussion of sympathetic magic in Jewish tradition, see Joshua Trachtenberg, Jewish Magic and Superstition, (Philadelphia: Jewish Publication Society, 1970), pp. 124-131.

"rainmaker" who, by pouring water from a tree and thereby imitating rain, induces the gods to end a drought.⁹⁹

We can begin to understand the Biblical perception of rain against the background of Canaanite beliefs and practices . While there is no actual evidence of it in the Biblical text, the Israelites, at the time of the fall harvest, may have engaged in rituals designed to encourage God to send rain upon their fields. The Mishnah describes in detail an elaborate ceremony of "water pouring" as part of the Festival of Sukkot. While the ceremony endured in Rabbinic Judaism, "the Sadducees rejected the ceremony because they could not find no support for it in Scripture."¹⁰⁰

The only citation in the Bible that seems to apply directly to the pouring out of water at a time of great festivity is in Isaiah. The prophet describes,

In that day, you shall say:
"I give thanks to You, O Lord!...
For Yah the Lord is my strength and might,
And He has been my deliverance"
Joyfully shall you draw water
From the fountains of triumph...¹⁰¹

The fact that there is no description of the ritual in the Biblical texts does not hinder the rabbis of the Mishnah from specifying the details of the water libation ceremony. They ascribe great authority to this ritual by asserting that it is "among the laws that were given to Moses on Mt. Sinai" and must be carried out without dispute.¹⁰² The rabbis were probably aware that this ritual originated as a pagan rite, but more importantly, they were aware of the centrality of rain in the lives of the people. They knew it was crucial to maintain the interactive relationship between human beings and

⁹⁹ Anderson, p.186.

¹⁰⁰ Jacobs, "Sukkot" p.499. See Mishnah Sukkah 4:9 and B. Sukkah 48b. Also Josephus, Antiquities 13:372.

¹⁰¹ Isaiah 12:1, 3.

¹⁰² Blackman's notes to Mishnah Sukkah 4:9.

God, the source of the rain. The Mishnah describes the ritual of the water pouring in this way,

אֵלָא שֶׁהָיוּ מוֹשְׁחָרִין פְּנֵיהֶם מִפְּנֵי
הַיָּיִן. וּמְגוֹקְבִין כַּמִּין שְׁנֵי חוֹסְמִין
דְּקָח, אֶחָד יִמְעוּבָה וְאֶחָד יִדְקֵי.
כַּדֵּי שֶׁהָיוּ שְׁנֵיהֶם כָּלִין יִבְבַּת
אֶחָת, מִעֲרָבֵי שְׁלֵם מִזְרָחֵי שְׁלֵם
הָיִן.

יְנִיסוּן הַמַּיִם, יִבְיָצֵד? יִצְלוּחִית שֶׁל
זָהָב מִחוֹקֵת שְׁלֹשָׁה יְלוּגִים הָיָה
מִמֶּלֶא מִן־הַשִּׁילוֹחַ. הִגִּיעוּ לְשַׁעַר
הַמַּיִם, יִתְקַעוּ וְהִרְיעוּ וְתִקְעוּ.
יַעֲלֶה יִבְכָּבֵשׁ, וּפְנֵה יִלְשִׁמְאֵלוּ.
שְׁנֵי יִסְפְּלִים שֶׁל כֶּסֶף הָיוּ שָׁם.
רַבֵּי יְהוּדָה אָמַר, שֶׁל סִיד יִהְיוּ.

The *water libation* How so?—A golden flagon holding three *log* was filled from the pool of Shiloah. When they arrived at the Water Gate they sounded a prolonged blast (and) a quavering note, and a prolonged blast. He went up the ramp and turned to his left where there were two silver bowls...And they each had a hole like a narrow spout, one wide and the other narrow, so that both were emptied out together, the one to the west was for water and that to the east was for wine...¹⁰³

The pageantry continues and is enhanced by musical accompaniment.

הַחֲלִיל חֲמֵשָׁה יוֹשֵׁה. יִזְהוּ הַחֲלִיל
שֶׁל בֵּית הַשּׁוֹאֵבָה, שְׂאִיעוּ יְדוּחָה
לֹא אֶת־הַשְּׁבֵת וְלֹא אֶת־יְיּוֹם טוֹב.
אָמְרוּ כָּל־מִי שֶׁלֹּא רָאָה שְׂמֵחַת
בֵּית הַשּׁוֹאֵבָה לֹא רָאָה שְׂמֵחָה
מִמֶּיּוּ.

The flute playing—sometimes five days and sometimes six days. This was the flute playing at the Libation Water-Well which overrode neither a Sabbath nor a Holyday. They said that anyone who had not witnessed the rejoicing at

¹⁰³ Mishnah Sukkah 4:9.

the Libation Water-Well had never seen rejoicing in his life.¹⁰⁴

This ultimate ritual celebration culminates with the lighting of giant oil burning menorahs, dancing, singing, the playing of musical instruments, the sounding of the shofar and a formulaic declaration.¹⁰⁵

This rite of pouring out water on the alter during Sukkot was not a petition to God to send the rain. That does not take place until the end of the festival.¹⁰⁶ Prayers for rain were said only after the conclusion of the festival so the pilgrims would have time to return to their homes while the weather was still clear before the rains began.¹⁰⁷ This pouring out of water was an ultimate expression of gratitude. The success of the gathered harvest was a gift from God, as were the rains that allowed the crops to grow, thrive, and come to fruition. The pouring out of water on the alter is thus a symbol of thanks and also a subtle reminder to God to send the rains again, in the coming year, at the proper season.

There are also echoes of the pagan past in the water-pouring itself. It was intended according to Rabbi Akiba, to remind the King of time and space to send rain in its correct season. If we pour water in a seasonal rhythm, that will help God remember to pour water—when we need it...So the water-pouring, with its hint of sympathetic magic, may seem somewhat like the outlook of those who worshipped Baal, the Canaanite weather God...For the Jews, the same God who revealed the Torah is responsible for nature and for rain...¹⁰⁸

¹⁰⁴ Mishnah Sukkah 5:1.

¹⁰⁵ Mishnah Sukkah 5:2-4.

¹⁰⁶ Goudoever explains, "The ~~prayer~~ for rain was connected with the feast from ancient times, the *rite* of water libation has a more or less magical character. By the time of the centuries around the beginning of our era it has probably lost some of this character or it has been deliberately suppressed." p. 34.

¹⁰⁷ Kitov writes based on Mishnah Rosh Hashanah 1:1 that, "It would have been proper therefore to mention rain during the prayers on the first day of the festival, just as we pray for dew on the first day of Pesach....Nevertheless we do not explicitly pray for rain before Shemini Atzeret. During all the days of Sukkot it is as if we are hinting to God that He should give us rain in the proper times, through the symbolism of the four species which grow near water, the water libation on the alter, the circling of the alter with the *arava* which grows near a river. During prayer, however, we do not explicitly mention rain." Vol I, p.211.

¹⁰⁸ Waskow, Seasons... p.53.

Reform Observance

Regarding the Festival of Sukkot, while it does not presently include a reference to or practice of water pouring, the Reform Movement has made great efforts to maintain the agricultural origins and symbols. The CCAR suggests this is the time of year to be aware of our role as caretakers of God's earth and to be sensitive the valuable and limited resources that allow us to survive as tenants on the planet.

More than any other of the Pilgrimage Festivals, Sukkot has retained its agricultural character...Through the use of Lulav and Etrog we acknowledge our dependance upon God for the food we eat. Living in an urban environment, it is easy to forget that both human labor and divine blessing make the world fruitful. On Sukkot our thoughts turn to the wonder and beauty of the world, to our responsibilities as its caretakers, and to our obligation to share, for God is the true owner of the land and its produce.¹⁰⁹

This testimony is beautiful, but it is not enough to only "turn our thoughts to the wonder and beauty of the world" on Sukkot. This is the attitude which must pervade all of our Festival celebrations. The partnership between "human labor and divine blessing" can be found in the historical background of the Festival celebrations and can be expressed in symbols that are Biblical and Mishnaic in origin.

Suggestion— *Simchat Beit Hashoevah*

Just as Pesach is a holiday of asking and answering questions, Sukkot is a holiday that is filled with tactile symbols and rituals. We build the Sukkah, we look at the stars through the lattice work roof, we wave the lulav and smell the etrog, we eat with invited guests, hearing the sounds of birds and animals just beyond our fragile walls. We touch the natural world by spending our time in these temporary frail dwellings. Sukkot is a festival of rejoicing using all of our senses.

¹⁰⁹ Knobel, p.80.

Since the destruction of the Temple, we have abandoned *Simchat Beit Hashoevah*, the water-pouring ceremony. While libations on the alter may no longer be appropriate, the meaning behind this ritual is valuable for our time. Water pouring, in appreciation of the past rains and in anticipation of the coming rains, is yet another tactile symbol that can enhance our contemporary Sukkot celebration. This ritual takes on new significance in an era that is plagued by acid rain and by polluted rivers, lakes, and oceans. This ancient ritual of *Simchat Beit Hashoevah* can provide a means for addressing this pressing contemporary problem from the wealth and experience of our Jewish tradition.

When the Temple stood, *Simchat Beit Hashoevah* was marked by great public festivity...Now...we have neither sacrifices nor wine libations nor water libation. Nevertheless, we still rejoice greatly during the Festival of Sukkot...It is customary in many Jewish communities for groups to gather during the nights of the Festival in synagogues and Houses of Study to rejoice together through song and praise in memory of *Simchat Beit Hashoevah*...It is customary to sing the fifteen songs of ascent (Psalms 120-134); which corresponds to the fifteen steps in the Sanctuary between the men's courtyard and the women's courtyard. On these steps the Levites stood as they sang and played during *Simchat Beit Hashoevah*.¹¹⁰

The form that this renewed ritual should take is difficult to determine. The Shalom Center has issued a proposal for "Sukkat Shalom 1991". It is a celebration that is designed to affirm peace and environmental wholeness within the observance of the traditional festival of Sukkot.¹¹¹ In addition to the specific programs outlined in the proposal, I offer the following suggestions for Sukkot celebrations.

¹¹⁰ *Krov Yodl*, pp. 187-188.

¹¹¹ See Appendix for the proposal issued by the Shalom Center.

- Reading of Psalms, accompanied by music and dancing.
- Pouring water from one vessel to another.
- Setting out collectors to catch and measure the amount of rain that falls from Sukkot to Sukkot.
- Introduce *Shemini Atzeret* and the liturgical additions that are made on this festival.¹¹²
- Express the universal value of rain based on a discussion of "the coming down of rain is an event greater than the giving of the Decalogue. The Torah is for Israel only, but rain is for the entire world."¹¹³

Rain, for those of us who are city dwellers and not farmers, is very often an inconvenience rather than a blessing. Yet rain, in the proper amounts, at the proper seasons, is vital to our continued existence. Too much rain can cause severe flooding and with it the destruction of life and property. And, not enough rain can cause wide spread drought and the devastation of land as well as the death of humans and animals. Our continued existence, as well as the health of the animals, plants, and land itself, is dependant on a force beyond our control, the falling of rain, which like other gifts of the natural world is given to us by God.

In keeping with the previous suggestions of *Bedkat Chametz* and *Bikkurim*, reviving *Simchat Beit Hasho'evah* as part of our Sukkot celebration, is another attempt to help modern urban Jews to be aware of the environmental and agricultural cycles of the world. It is hoped that through participation in this ritual, we the created, can become more involved in being partners with God, the Creator, in the process of creation.

¹¹² I hope to explore *Shemini Atzeret*, using the same format as has been used to discuss Pesach, Shavuot and Sukkot, at length in another document. However, in the meantime, there is an excellent discussion of it in Waskov's book, *Seasons of Our Joy*, and he includes a beautiful prayer for water on p. 71.

¹¹³ Midrash Tehillim 117:1.

Chapter V
ECOLOGICAL IMPLICATIONS OF THE HEBREW CALENDAR
Using the essence and structure of the Hebrew Calendar to address
current environmental issues.

RELATIONSHIPS BETWEEN CREATOR, CREATION AND CREATED

Introduction

The Hebrew calendar, with its celebrations of Rosh Chodesh and the agricultural festivals, connects Jews with the manifold elements of the natural world. Through the Hebrew calendar, we can observe the patterns of heavens and notice the flow of the seasons; we can sense the Divine Creator. These calendrical events can inspire us and lead us to seek, not only in a relationship with God, but active participation in the work of creation as caretakers of the earth. The Hebrew calendar, in its various forms, has long served this purpose for the Jewish people, similarly, our partnership with God, as caretakers of Creation is beautifully expressed in the Bible, in Rabbinic texts, and in contemporary writings.

God said, "Let there be lights in the expanse of the sky to separate day from night; they shall serve as signs for the set times—the days and the years; and they shall serve as lights in the expanse of the sky to shine upon the earth." And it was so. God made the two great lights, the greater light to dominate the day and the lesser light to dominate the night, and the stars. And God set them in the expanse of the sky to shine upon the earth, to dominate the day and the night, and to separate light from darkness, and God saw that this was good.¹

As Jews, we are a people who measure our time according to the cycles of the sun and the moon. The great lights of the sky serve as our signs of the seasons, the days, and the years, as we define events throughout the Hebrew calendar. We have long been observers and acclaimers of the greatness and the wonders of the heavens and their patterned movements. The psalmist wrote,

¹ Genesis 1:14-18.

Bless the Lord, O my soul;
O Lord, my God, You are very great;
 You are clothed in glory and majesty,
 wrapped in a robe of light;
 You spread the heavens like a tent cloth...
He made the moon to mark the seasons;
 the sun knows when to set.
You bring on darkness and it is night,
 when all the beasts of the forests stir...²

The psalmist also wrote,

O Lord, our Lord,
 How majestic is Your name throughout the earth,
 You who have covered the heavens with Your
 splendor!...
When I behold Your heavens, the work of Your fingers,
 the moon and stars that you set in place,
 what is man that You are mindful of him,
 mortal man that You have taken note of him,
 that You have made him little less than divine
 and adorned him with glory and majesty...³

As we observe and acclaim, our admiration and praise goes to God, the Ultimate Creator, not to the objects themselves. We are not nature worshippers. These marvels of nature have within them the stamp of the the Divine, they themselves are not holy, but like each human, they bear the seal of the Creator.

Contemporary Expressions of Experiencing God in Nature

This recognition voiced by the psalmist echoes still today in the writings of historian and Sierra Club author, Thomas Berry.⁴

² Psalms 104: 1-2, 19-20.

³ Psalms 8:2-6. Weiser explains, "What captivates the poet more than anything else, however, is not so much the wonder which the contemplation of the starlit sky at night calls forth in his soul, an experience which he contentedly enjoys to the full. On the contrary, that contemplation leads him to a more profound insight. Behind the glorious splendor of the brilliant sky his mind's eye envisages him to a more profound insight. Behind the glorious splendor of the brilliant sky his mind's eye envisages him to a more profound insight. It is for him, for the divine Creator, that his song is intended..."p. 140.

⁴ "Thomas Berry, a historian of cultures, comes from the hill country of North Carolina. He has studied the languages and cultures and India and China and has participated in the educational program of the Tiboli tribes in Mindanao in Philippines. He is the author of numerous articles and several previous books, and

The ecological age fosters the deep awareness of the sacred presence within each reality of the universe. There is an awe and reverence due to the stars in the heavens, the sun, and all heavenly bodies; to the seas and the continents; to all living forms of trees and flowers; to the myriad expressions of life in the sea; to the animals of the forests and the birds of the air. To wantonly destroy a living species is to silence forever a divine voice...⁵

Observing the heavens and their miraculous patterns and cycles prods us to ask the hard questions, the deep questions, the questions of who we are and why we exist. Like the psalmist, naturalist Chet Raymo⁶ describes the experience many of us may have on a clear night, in an open place when we stand in awe of the heavens blanketed with stars, lit by a shining moon.

And now comes the time to face the ultimate questions, as one must always face them on nights such as this one when starlight soaks the ground like a summer rain, staining the stoney brown soil the darker color of wet peat and moistening the limestone pebbles of the road a deeper gray. The irises in the ditch stand on tiptoes to catch their share of starlight—and of the neutrinos falling from Vega that zip through their splayed yellow fingers, plash [splash?] into the ground, and go on to China. How do I ask the the questions without sounding the fool? I am not a philosopher. I am not a theologian. I will ask the questions exactly as I learned them as a child. Let them stand erect like the irises, foolishly flapping their cliches, venerable in their fool's silks: *Who am I? Why am I here??*

We observe, we ponder, and perhaps, if we are perceptive and prepared, we can glimpse answers to these questions. We can see beyond the shining stars and the

served as President of the American Teilhard Association for the Human Future. Presently he is director of a research center in New York devoted to the study of a viable mode of human presence upon the earth."
(From book jacket of The Dream of the Earth)

⁵ Berry, p.46.

⁶ "Chet Raymo is Professor of Physics and Astronomy at Stonehill College, Massachusetts. A teacher, naturalist, and science columnist for The Boston Globe, he is the author of the highly praised The Soul of the Night, the best-selling 365 Starry Nights, and several other books, four of which have been major book club selections." (From cover page of Honey from Stone.)

⁷ Raymo, p.177.

bright moon, to the One who fashioned all this beauty, God. Raymo describes just such a holy encounter.

... Photons of radiant energy stream across the light-years, wind-whipped whitecaps of visible light and the longer swells of the infrared, to fall upon the Earth out of the dark night—denying, revealing, hiding, making plain. I am soaked by starlight; I am blown by stellar wind. I am bent low in that downpour of revelation.⁸

God is ultimately the force behind these marvels we observe. The vastness of the heavens, the infinitely large black holes and the ultra-microscopic quarks led physicist Stephen Hawking⁹ to ponder these existential questions from a scientific approach.

...But ever since the dawn of civilization, people have not been content to see events as unconnected and inexplicable. They have craved an understanding of the underlying order of the world. Today we still yearn to know why we are here and where we came from. Humanity's deepest desire for knowledge is justification for our continuing quest. And our goal is nothing less than a complete description of the universe we live in.¹⁰

Observation, deep contemplation, and understanding of the heavens ultimately forced Hawking to link the realm of science with the domain of the Divine.

However, if we do discover a complete theory, it should in time be understandable in broad principle by everyone, not just a few scientists. Then we shall all, philosophers, scientists, and just ordinary people, be able to take part in the discussion of the question why it is that we and the universe exist. If we find the answer to that, it would be the ultimate triumph of human reason—for then we would know the mind of God.¹¹

⁸ Raymo, p. 186.

⁹ "Stephen W. Hawking is forty-six years old. He was born on the anniversary of Galileo's death, holds Newton's chair as Lucasian Professor of Mathematics at Cambridge University and is widely regarded as the most brilliant theoretical physicist since Einstein." (From book jacket of A Brief History of Time)

¹⁰ Hawking, p. 13.

¹¹ Hawking, p. 175.

This is the challenge that confronts religious people: to know or to experience the closeness of God. All too often, "the real tragedy, however, is that religious and spiritual persons themselves remain unaware of their need to provide for themselves and for the society a more significant evaluation of the larger context of our live..."¹² Clergy as well as religiously and spiritually minded individuals can draw closer to the Divine by recognizing the global and universal world in which we human beings abide. By recognizing the cycles of the world around us, by celebrating the agricultural elements of the festivals, we can experience God, the Creator. In developing a sensitivity to the Creative genius of the Creator, we can enter in to a relationship with God, and as a result of that, we can become more concerned about all the wonders of creation, the heavens, the earth, the seas, and all the forms of life that inhabit them.

Job's Experience of God in Nature

An example of this phenomenon, of using Nature as a means to reach God, is found in the Book of Job. Job has suffered tremendous loss and wonders why he, a seemingly righteous man, should be the victim of God's wrath. He questions the meaning of his relationship with the Divine. God responds by parading all the marvels of nature before Job, the seasons, the heavens, the birds and the animals. God asks Job,

Where were you when I laid the earth's foundations?
Speak if you have understanding.
Do you know who fixed its dimensions
Or who measured it with a line?
Onto what were its bases sunk?
Who set its cornerstone...
Have you ever commanded the day to break,
Assigned the dawn its place...?
Have you penetrated the vaults of snow,
Seen the vaults of hail...?
Can you tie cords to Pleiades
Or undo the reins of Orion?

¹² Berry, p.112.

Can you lead out Mazzaroth in its season,
Conduct the Bear with her sons?
Do you know the laws of heaven
Or impose its authority on earth?...
Do you know the season when the mountaingoats give
birth?...
Is it by your wisdom that the hawk grows pinions,
Spreads his wings to the south?...¹³

Job watches all the wonders of nature unfold before him and he realizes that it is only God who can create all these wonders and cause all of these perfect events to take place. Job comes to understand that the workings of the cosmos are so complex and intricate that he, a mortal man, can not hope to understand them, much less the reasons for his own apparent sufferings.¹⁴ He can, however, be sensitive to the natural world around him and through it draw closer to God, the Ultimate Creator. Job replies to God,

I know that You can do everything,
That nothing you propose is impossible for You.
Who is this who obscures counsel without knowledge?
Indeed I spoke without understanding
Of things beyond me, which I did not know.
Hear now, and I will speak;
I will ask, and You will inform me.
I heard you with my ears,
But now I see you with my eyes;
Therefore, I recant and relent,
Being but dust and ashes.¹⁵

Job comes to appreciate his relationship with God when he uses not only his ears to hear but also his eyes to see. He carefully observes and perceives all that is in the world, all of the gifts that are given to human beings by God. He appreciates them

¹³ Job 38:4-6, 12, 22, 31-33. 39:1, 26.

¹⁴ Matitياهو Tsefat proposes that God leads Job through the world in order to show him everything except Justice. He argues that the element of Justice is not to be found in the world as God created it. Humans might imagine that the world is run on Justice but it is not. God's role is to give laws and ideas, but God does not execute those ideas. God has the power to do so but does not exercise it, choosing instead to recede and allow people to be partners (Class lecture 12/19/89). See also, Matitياهو Tsevat, "The Meaning of the Book of Job." HUCA (1986): 73-107.

¹⁵ Job 42:2-6.

and more importantly, he honors the uniqueness of their Creator. As a result, Job comes to be blessed by God.¹⁶

We seek this ever elusive relationship with God in many ways: through prayer, through the fulfillment of commandments, in pursuing social justice, in the study of Torah and, by observing and interacting with the cycles of the world of nature. All of these, in addition to many other vehicles, are ways to approach God, to enter into a relationship with the Divine and add meaning to our lives. "Many religious and spiritual persons are beginning to understand the new context of their own future developments as members of the planetary community...Now a new vision and new vigor are available...through our modern understanding of the origin and development of the universe and emerging ecological age..."¹⁷

Our understanding of the natural world is different from the understanding that was held by our Biblical ancestors. We often think of ourselves as being more sophisticated and advanced because we have more finely tuned and costly technology. And yet, while the Biblical community may not have known the details of photosynthesis or the speed of light, they had a tremendous amount of reverence, respect and praise for the wonders of the natural world. The challenge for us today is to maintain that sense of awe and wonder at the majesty of creation as we continue to use our skills to understand its various mechanisms.

As we continue to learn and understand more about the natural world around us, we can draw closer to nature and to God. From this closeness we may then want to feel more involved. Those people who are brought near to God through prayer may be

¹⁶ Gordis, "Ecology in the Jewish Tradition" upholds that there are two significant implications from the Book of Job. "The first is theological: since the universe was not created with man as its center, neither the Creator nor the cosmos can be judged from man's vantage-point. The second is ecological: though the poet was not concerned with presenting a religio-ethical basis for ecology, he has in effect done so. Man takes his place among the other living creatures who are likewise the handiwork of God. Therefore man has no inherent right to abuse or exploit the living creatures or the natural resources to be found in a world not of his making, not intended for his exclusive habitation." p.21.

¹⁷ Berry, p. 122.

moved to compose liturgical verse. Others who encounter God through the study of sacred texts may be inspired to create textual commentary. Those individuals who encounter God in the world of Nature may be motivated to share with God in the nurturing and the continued creation of these wonders. This desire to be a caretaker of God's created world, comes not only from the experiential encounter of God in nature but can also be found in the texts of our tradition.

CARETAKING IN THE BIBLE

Varied Religious Perspectives

Discussion of the Biblical relationship between human beings, God, and the natural world almost invariably begins with a discussion of two passages from the stories of creation found in the book of Genesis.

God blessed them and said to them, Be fertile and increase, fill the earth and **master it; and rule**¹⁸ the fish of the sea, the birds of the sky, and all the living things that creep the earth.¹⁹

The Lord God took man and placed him in the garden of Eden, **to till it and to tend it.**²⁰

The problem focuses on the interpretation of the words of Genesis 1:28, "Master it and rule" and those of Genesis 2:15, "to till it and to tend it." Historically these words have been understood to mean that humans have the dominion, the power to exploit, everything else that exists in the created world, the plants and animals, the water, the

¹⁸ וַיְבָרֶכְהוּ וַיֹּאמֶר אֱלֹהִים לְבָרְכִי אֶת-בְּנֵי-אָדָם וְאָמְרוּ אֵלֵינוּ וְנִבְרָכֵנוּ. According to Brown Driver and Briggs, וַיְבָרֶכְהוּ is based on the root בָּרַךְ which has the meaning of to subdue or bring into bondage. וַיֹּאמֶר is based on the root אָמַר and means, to have dominion, to rule or to dominate.

¹⁹ Genesis 1:28. Jeremy Cohen traces the Biblical and Rabbinic interpretations of this passage in his work "Be Fertile and Increase, Fill the Earth and Master It": *The Ancient and Medieval Career of a Biblical Text*. (Ithaca: Cornell University Press, 1989).

²⁰ Genesis 2:15. וַיִּבְרָא אֱלֹהִים אֶת-הָאָדָם וַיִּשְׂמְרוּ אֶת-עֵדֶן. According to Brown, Driver and Briggs, וַיִּשְׂמְרוּ is based on the root שָׁמַר which means to keep, to watch or to preserve. וַיִּבְרָא is based on the root בָּרַךְ which means to work or to serve.

land, and the sky. This position is articulated by Sarna in his comment to Genesis 1:28, "This exclusive distinction endows man with power over the animal and vegetable worlds and confers upon him the right, nay the duty, to exploit the resources of nature for his own benefit..."²¹

Lynn White Jr., in an article considered by many to be the seminal work about the religious roots of the environmental crisis,²² explains that this attitude became prominent sometime after the seventh century CE. Farmers in Northern Europe developed a new type of plow, one that used teams of oxen to dig deep furrows in the soil rather than the scratch-plows. This change had broad repercussions for the distribution of land, its use, and human beings relationship to it.

Thus distribution of land was based no longer on the needs of a family, but rather, on the capacity of a power machine to till the earth. Man's relation to the soil was profoundly changed. Formerly man had been a part of nature; now he was an exploiter of nature...²³

This attitude has resulted in the wide spread destruction of fertile land, large quantities of polluted, undrinkable water, extinction of numerous species of plants and animals and a threat to the very existence of human life itself. As a result of these catastrophes, this interpretation of the Biblical text has come under scrutiny. Recently, it has been rejected by [many] environmentalists, Biblical scholars and theologians.²⁴ "Environmentalists have for some years now delivered a negative ecological judgement on Biblical traditions, finding in them the seeds of the West's devaluation of nature and exploitive attitudes toward it."²⁵

²¹ Sarna, p. 15.

²² Lynn White Jr, "The Historical Roots of Our Ecological Crisis," Science 155:1203-1207.

²³ White, p. 1205.

²⁴ See Bernhard Anderson, "Human Dominion Over Nature" in Biblical Studies in Contemporary Thought, ed. Miriam Ward, pp. 27-45; and "Creation and Ecology" American Journal of Theology and Philosophy 1: 14-30.

²⁵ Hiebert, "Ecology and the Bible" in Harvard Divinity Bulletin (Fall 1989), p. 2.

There is a need to move beyond the words of the Genesis stories. It provides a definition that for too long has been interpreted too narrowly. The relationship between human beings, God, and the earth involves more sophistication and sensitivity than simple mastery. Biblical interpreters, scholars, religious and lay leaders, and concerned individuals are coming to see the earth as something to be used but also something to be protected. Support for this attitude can be found in many Biblical passages and in a variety of religious traditions. There are a number of religious individuals who provide models for humans in being partners with God and Nature.

White proposes Saint Francis of Assisi as the patron saint of environmentalists.²⁶

Among the great Christian teachers, none is more identified with an ethic of nature than Francis of Assisi (1182?-1226), who treated all living things and inanimate objects as if they were his brothers and sisters...It is not unlikely that the Franciscan worship of nature, in its various philosophical, scientific, and religious forms, has played some part in the emergence of the doctrine of conservation in the countries of Western civilization and its rapid spread during the past century.²⁷

Rene Dubos²⁸ suggests,

Benedict of Nursia, who was certainly as a good a Christian as Francis of Assisi, can be regarded as a patron saint of those who believe that true conservation means not only protecting nature against human misbehavior but also developing human activities which favor a creative, harmonious relationship between man and nature.²⁹

²⁶ White, p. 1207. "The key to an understanding of Francis is his belief in the virtue of humility—not merely for the individual but for man as a species. Francis tried to depose man from his monarchy over creation and set up a democracy of all God's creatures." p. 1206.

²⁷ Dubos, p. 162.

²⁸ "Rene Dubos was for many years a professor at The Rockefeller University in New York City. An eminent microbiologist and experimental pathologist as well as writer, Dr. Dubos was the first scientist to demonstrate the feasibility of obtaining germ-fighting drugs from microbes. In 1969 he was awarded the Pulitzer Prize for So Human an Animal. he died in 1982." (From book jacket of A God Within)

²⁹ Dubos, p. 168. Dubos goes on to explain, "The first chapter of Genesis speaks of man's dominion over nature. The Benedictine rule in contrast seems inspired rather from the second chapter, in which the Good Lord placed the man in the Garden of Eden not as a master but rather in the spirit of stewardship. Throughout the history of the Benedictine order, its monks have actively intervened in nature—as farmers, builders and scholars. They have brought about profound transformations of soil, water, fauna, and flora, but

In addition, Native American religious culture provides a very powerful model of the ideal relationship that should exist between human being, God and the earth. Chief Seattle wrote a letter to the United States Government in 1852 responding to their inquiry to purchase the tribal lands of his ancestors. His response embodies a religious belief that upholds the use of the resources of the earth while protecting them from exploitation by human beings. He wrote,

The President in Washington sends word that he wishes to buy our land. But how can you buy or sell the sky? The land? The idea is strange to us. If we do not own the freshness of the air and the sparkle of the water, how can you buy them?

Every part of this earth is sacred to my people. Every shining pine needle, every sandy shore, every mist in the dark woods, every meadow, every humming insect. All are holy in the memory and experience of my people...

This we know: the earth does not belong to man, man belongs to the earth. All things are connected like the blood that unites us all. Man did not weave the web of life, he is merely a strand in it. Whatever he does to the web, he does to himself.

One thing we know: our god is also your god. The earth is precious to him and to harm the earth is to heap contempt on its creator...

We love this earth as a newborn loves its mother's heartbeat. So, if we sell you our land, love it as we have loved it. Care for it. Hold in your mind the memory of the land as it is when you receive it. Preserve the land for all children and love it, as God loves all.

As we are part of the land, you too are part of the land. This earth is precious to us. It is also precious to you. One thing we know: there is only one God. No man, be he Red Man or White Man, can be apart. We *are* brothers after all.³⁰

in such a wise manner that their management of nature has proved compatible in most cases with the maintenance of environmental quality. To this extent, Saint Benedict is...relevant to human life in the modern world and to the human condition in general." p.169-170.

³⁰ Campbell, p.33-35.

Concern and sensitivity for the natural world does not have to be separate from one's religious beliefs. These models show that one's religious beliefs can lead to caring, nurturing relationships between the Creator, the Created, and Creation.³¹

A Biblical Perspective Beyond Genesis

While we can look to these varied religious viewpoints for models of a healthy relationship between human beings, God, and the earth, we can also find them deep within the Biblical tradition. The Bible does declare that human beings are to master, rule, till, and tend the Earth. The Bible goes on, however, to express God's ultimate ownership of the earth. This owner, according to the Bible, describes God as an owner that allows the tenants to use, but not abuse or destroy, the gifts of that abode. All of these images combine and can be interpreted to mean that indeed humans can use the resources of the earth, but they must at all times remember that these are the gifts of God. Humans are to care for the gifts and protect them for future generations.

God's dominion, as opposed to the power of people, over the land is expressed in these passages from the Torah:

Mark, the heavens to their uttermost reaches belong to the Lord your God, the earth and all that is on it!³²

But the land must not be sold beyond reclaim, for the land is Mine; you are but strangers resident with Me. Throughout the land that you hold, you must provide for the redemption of the land.³³

The prophet Isaiah made clear that the earth and the heavens are the possessions of God and not that of humans.

³¹ This belief is expressed from the perspective of a religious naturalist in an essay by Rabbi Roland B. Gittelsohn, "No Retreat From Reason." CCAR Yearbook 74 (1964):191-203.

³² Deuteronomy 10:14.

³³ Leviticus 25:23-24.

Thus said the Lord:
The heaven is My throne
And the earth is My footstool:
Where could you build a house for Me,
What place could serve as My abode?
All this was made by My hand,
And thus it all came into being,
—declares the Lord.³⁴

The Psalmist also perceived the earth as the possession of God.

The earth is the Lord's and all that it holds,
the world and its inhabitants.
For He founded it upon the ocean,
set it on the nether-streams...³⁵

Ownership of the heavens and the earth is ascribed to God in this passage attributed to King David.

Yours, O Lord, are greatness, might, splendor, triumph, and majesty—yes, all that is in heaven and on earth; to You, Lord, belong kingship and preeminence above all. Riches and honor are Yours to dispense; You have dominion over all; with You are strength and might...³⁶

The attitude of “mastery”, found in the opening verses of Genesis, give an individual or a group the freedom to exploit or destroy the natural world, and is in direct contradiction with much of what is described in other passages of the Bible. As the previous text have shown, the Bible consistently emphasizes not the role of “master” as dominator and exploiter but rather the combined role of “master” as both “tiller” and “tender”.

The Torah teaches that we are indeed permitted to make use of the resources of this beautiful world. We are to eat the fruits and grains,³⁷ we may eat of the animals,³⁸

³⁴ Isaiah 66:1-2.

³⁵ Psalms 24:1-2.

³⁶ I Chronicles 29:11-12.

³⁷ Genesis 1:29. “God said, See, I give you every seed-bearing fruit; they shall be yours for food.”

³⁸ Genesis 9:3-4. “Every creature that lives shall be yours to eat; as with the green grasses, I give you all these. You must not, however, eat flesh with its life-blood in it.” Pederson explains, “The beasts are judged

and we may use the wood of trees.³⁹ But, we are also to protect these precious commodities. We may not waste food, we are to leave the gleanings of the field for the needy⁴⁰ and we are to allow the fields to rest every seven years.⁴¹ We are not to abuse the animals,⁴² and they too must be allowed a day of rest.⁴³ We may not wantonly destroy natural resources, only certain trees can be cut down and only for certain purposes. And, our waste is to be disposed of in a safe manner, away from areas inhabited by human beings.⁴⁴ All of this indicates, that from a Biblical perspective the earth and its resources are not to be "mastered"—dominated and exploited; rather they are to be used—but used with care and within certain limits, and always with the understanding that they are gifts bestowed upon us by God.

This attitude of caring for nature because it is a gift from God, the Creator, is illustrated in the story of Jonah. As Robert Gordis has written, "perhaps the most eloquent affirmation of concern with the welfare of all living things—eloquent precisely because it is indirect and seemingly unintentional—occurs in the unforgettable climax of

by their relation to man; for man is, in the eyes of the Hebrews, the goal of all created things. Toward animals he feels like a ruler. Even if he acknowledges their nature and has a covenant with his domestic animals, he claims to be the absolute ruler in this covenant relations (Based on Gen. 2:19, Gen. 9:2, Psalm 8)." p. 164.

³⁹ Deuteronomy 20:20. "Only trees that you know do not yield food may be destroyed; you may cut them down for constructing siegeworks against the city that is waging war on you, until it has been reduced."

⁴⁰ Leviticus 19:9-10. "When you reap the harvest of your land, you shall not reap all the way to the edges of your field or gather the gleanings of your harvest. You shall not pick your vineyard bare, or gather the fallen fruit of your vineyard; you shall leave them for the poor and the stranger. I am the Lord your God."

⁴¹ Exodus 23:10-11. "Six years you shall sow your land and gather in its yield; but in the seventh you shall let it rest and lie fallow. Let the needy among your people eat of it, and what they leave let the wild beasts eat. You shall do the same with your vineyards and your olive groves."

⁴² Deuteronomy 22:10. "You shall not plow with an ox and an ass together." Also, Deuteronomy 25:4. "You shall not muzzle an ox while it is threshing." See Howard Schwarz, "Judaism and Compassion for Animals" in Judaism and Vegetarianism pp. 13-30 for additional references to this topic.

⁴³ Exodus 23:12. "Six days you shall do your work, but on the seventh day you shall cease from labor, in order that your ox and your ass may rest, and that your bondman and the stranger may be refreshed."

⁴⁴ Deuteronomy 23:13-15. "Further there shall be an area for you outside the camp, where you may relieve yourself. With your gear you shall have a spike, and when you have squatted you shall dig a hole with it and cover up your excrement. Since the Lord your God moves about in your camp to protect you and to deliver your enemies to you, let your camp be holy; let Him not find anything unseemly among you and turn away from you."

the Book of Jonah."⁴⁵ Jonah has finally delivered his message of prophecy to the people of Nineveh and he goes to the outskirts of the city to observe the results of his message

Now Jonah had left the city and found a place east of the city. He made a booth there and sat under it in the shade, until he should see what happened to the city. The Lord God provided a ricinus plant [or gourd], which grew up over Jonah, to provide shade for his head and save him from discomfort. Jonah was very happy about the plant.⁴⁶

Jonah is pleased that the plant shelters him from the sun, and yet he does not thank God for providing the plant, and he does nothing to care for the plant. He takes for granted this most valuable and fragile resource. As a result of his behavior,

..the next day at dawn God provided a worm, which attacked the plant so that it withered. And when the sun rose, God provided a sultry east wind; the sun beat down on Jonah's head, and he became faint. He begged for death, saying "I would rather die than live." Then God said to Jonah, "Are you so deeply grieved about the plant?" "Yes," he replied, 'so deeply that I want to die."⁴⁷

Jonah wishes to die, not because he feels guilty about the death of the plant, but in order to end, once and for all, his own suffering. In response to Jonah's total lack of concern or action on behalf of any of the created world except himself, God asks him another question. From this rhetorical question, from closing words of the Book of Jonah, we can ascertain our responsibility not only to care, but to appreciate and nurture all that God has created.

The Lord said: "You cared about the plant, which you did not work for and which you did not grow, which appeared overnight and perished overnight. And should not I care about Nineveh, that great city, in which there are more than a hundred and twenty thousand persons who do not yet

⁴⁵ Gordis, "Ecology in the Jewish Tradition.", p.20.

⁴⁶ Jonah 4:5-6.

⁴⁷ Jonah 4:7-9.

know their right hand from their left, and many beasts as well!"⁴⁸

Mastery does not mean freedom to conquer and destroy; rather it means to act in accord with God and nature. Jonah teaches the importance of having compassion for all that God has created. Mastery means using the resources of the world but always knowing that they can only be created by God and are always worthy of our praise, admiration and respect. This passage from Psalms captures the ideal attitude for humans to adopt toward God and nature.

...What is man that you are mindful of him, mortal man that you have made him little less than divine, and adorned him with glory and majesty. You have made him master over Your handiwork, laying the world at his feet. Sheep and oxen, all of them, and wild beasts too; the birds of the heavens, the fish of the sea, whatever travels the paths of the sea. O Lord our God, how majestic is your name throughout the earth!⁴⁹

The fine line between use and abuse of the gifts of nature is explained by Pederson.

Thus there are a number of rules to be observed in relation to the earth. It's blessing must be tended, its nature not violated, and yet it is to be kept close to the soul of man and received into it. If it is violated, it revolts and becomes a wilderness; and if the people lose the blessing, then it taints the earth and is spewed out of it (Leviticus 20:22).⁵⁰

The Biblical authors did not use words like ecology or environmentalism, but it is clear they understood there were limits placed on human beings. Nature was a gift given by God, to be both used and treasured. Isaiah reminds us,

For thus says the Lord,
The Creator of heaven who alone is God,

⁴⁸ Jonah 4:10-11.

⁴⁹ Psalms 8:5-10.

⁵⁰ Pederson, p.480.

Who formed the earth and made it,
Who alone established it—
He did not create it a waste
But formed it for habitation:
I am the Lord, there is none else.⁵¹

The psalmist also makes clear that the earth is shared between God and the people.

May you be blessed by the Lord,
Maker of heaven and earth.
The heavens belong to the Lord,
But the earth He gave over to man.⁵²

Pederson best describes the relationship that existed in the Biblical period between God, the Earth and human beings . He writes,

The relation between the earth and its owner is not that the earth, like a dead mass, makes part of his psychic whole—an impossible thought. It is a covenant relationship, a psychic community, and the owner does not solely prevail in the relation. The earth has its nature, which makes itself felt, and demands respect. The important thing is to deal with it accordingly and not to ill-treat it.⁵³

This description is still relevant to our world today. It is the ultimate message of the Biblical texts and the one from which we and our world can most benefit. The Bible provides a detailed and complex image of the relationship between God, human beings and the earth. This dynamic is far more complicated than the traditional interpretations derived from the statements made in Genesis. Our Biblical heritage teaches us that we must understand God to be the ultimate Creator. Nature is the expression of God's powers. We are to praise God, and preserve, not destroy, the beautiful gifts given to us.

⁵¹ Isaiah 45:18.

⁵² Psalms 115:15-16.

⁵³ Pederson, p.479.

CARETAKING IN THE RABBINIC PERIOD

From Aggadah

The relationship between God, human beings and Creation that is established in the Biblical materials is further developed and defined in the Rabbinic Period. The relationship is typified in this Midrashic passage,

א [י]ן ראה את מעשה האלהים כי פי יוכל לתקן את אשר עושה
במעשה שבדא הקב"ה את אדם הראשון נסלו והחזירו על
כל אילני גן עדן ואמר לו ראה בעשי כסה נאים ומשובחין הן וכל מה
שבראתי בשבילך בראתיי הן דעתך שלא תקלקל ותחריב את עולמי
שאם קלקלה אין מי שיחוק ארביך.

In the hour when the Holy One, blessed be he, created the first man, He took him and let him pass before all the trees of the Garden of Eden and said to him: See the works, how fine and excellent they are! Now all that I have created; I created for your benefit. Think upon this and do not corrupt and destroy my world. For if you destroy it, there is no one to restore it after you.⁵⁴

The Rabbis also warn us against destroying the world that God has created in this passage from Pirke Avot.

⁵⁴ Kohellet Rabba 7:13. This is one of the most often cited rabbinic texts in regard to defining the role of humans as caretakers of God's Creation. It is a valid piece of evidence but should not be overused. Also overused, and therefore not included in the body of this work, is this passage from Sefer Hachinuch 529. "The purpose of a מצוה as is well known, is to train our souls to love the good and that which is creative and useful and to refrain from all that which is destructive. The way of the righteous and men of good deeds is to love peace and take pleasure in the welfare of their fellow-man and draw them closer to the Torah. They would not want only destroy even a mustard seed. They are grieved and oppressed at the sight of waste and destruction. If they could save anything from being destroyed they would do so with all their power. The wicked are not so. They are the brethren of all despoilers. They are happy in destroying the world as they are in destroying themselves...Generally speaking the Rabbis forbade all destructive acts and they linked one who destroys anything in anger to one who worships idols."

יַבְעֲשֶׂרָה מֵאֲמֵרוֹת נִבְרָא הָעוֹלָם.
 וּמֵהִתְלַמּוֹד לֹמְרֵי וְהֵלֵא בְּמֵאֲמֵר
 אֶחָד יָכוֹל לְהִבְרָאוֹת? אֶלֶּא
 לְהַפְרֵעַ מִן־הַרְשָׁעִים יִשְׁמְאֲבֹדֵן
 אֶת־הָעוֹלָם שֶׁנִּבְרָא בְּעֲשָׂרָה
 מֵאֲמֵרוֹת, יוֹלִיתֵן שָׂכָר טוֹב
 לְצַדִּיקִים יִשְׁמְקִימֵן אֶת־הָעוֹלָם
 שֶׁנִּבְרָא בְּעֲשָׂרָה מֵאֲמֵרוֹת.

By ten [Divine] sayings was the world created. Why does the Torah indicate this? Surely the world could have been created by one divine utterance! It comes to tell us that God will exact severe penalty from the wicked who destroy the world which was created by no less than ten utterances, and that He will grant rich reward to the righteous who maintain the world which was created by ten utterances.⁵⁵

There are also examples in the Rabbinic texts which describe the relationship between human beings, God, and nature as one in which human beings are actively involved in the ongoing process of creation. People are both caretakers and creators. This story is from Midrash Tanhuma, an eighth century collection organized according to the Torah lection.⁵⁶

⁵⁵ Pirke Avot Y:1. (Translation provided by Lamm in *Faith and Doubt* p. 161.) Goldin explains, "The object of making us aware of the ten sayings is to serve as a warning to the evil doers, who by their wickedness destroy the world, the objective for which the world was created, making them aware of the grave responsibility they have, and that their punishment would be commensurate with the gravity of their crime. Conversely, it is to encourage the righteous, in pointing out to them how great their reward will be for helping maintain the existence of the Creation, and the object for which it had been called into being—for man to live in accordance with the moral principles of the Law of God." p.74.

⁵⁶ Dr. Lewis Barth (class notes 11/23/88) explains the Tanhuma was written after Leviticus Rabba, Pisikta de Rav Kahenah and Lamentations Rabba but prior to the Islamic period. It is a collection of material, much of which can be found in other places. It was written primarily in Hebrew, and translates into Hebrew those *midrashim* which otherwise appear in Aramaic. Barth argues that Midrash Tanhuma is not as creative as earlier material because of its stylistic criteria.

מעשה ששאל טורנוסרופוס הנרצע את רבי עקיבא, איזו מעשים נאים, קל הקדוש-ברוך-הוא או של בשר נדם. אמר לו, של בשר נדם נאים. אמר לו טורנוסרופוס, הרי השמים והארץ וכול אדם לעשות ביוצא בהם? אמר לו רבי עקיבא, לא תאמר לי בדבר שהוא למעלה מן הכריות שאין שולטין עליה, אלא אמר דברים שהם מצויין בבני אדם. אמר לו, למה אתם מולין. אמר לו, אני הויתי יודע שעל דבר זה אתה שואלני ולכך הקדמתי ואמרתי לך, שמעשה בני אדם נאים משל הקדוש-ברוך-הוא. הביא לו רבי עקיבא שקלים והקבאיות. אמר לו, אלו מעשה הקדוש-ברוך-הוא, ואלו מעשה ידי אדם. אמר לו, אין אלו נאים יותר מן השקלים? אמר לו טורנוסרופוס, אם הוא חפץ במילה, למה אינו יוצא הוֹדֵד מהול ממעי אמו. אמר לו רבי עקיבא, ולמה שררו יוצא עמו' והוא תלוי בכסנו - ואמו חותכו! ומה שאתה אומר למה אינו יוצא מהול, לפי שלא נמן הקדוש-ברוך-הוא את המצות לישראל אלא לצרף אותם בהם. ולכך אמר דוד, '(כל) אמרת-הי צרופה (ההיים יח זא).

A story. Tarnus Rufus the Wicked asks Rabbi Akiva, "Which is a more beautiful (desirable, useful) creation, that which is created by the Holy One blessed be He, or that which is made by those of flesh and blood (human beings)?" Akiva said to him, "That which is of human beings is more beautiful." Tarnus Rufus said to him, "Behold the heavens and the earth, can man make creations like these?" Rabbi Akiva said to him, "Do not speak to me of things that are above, from the Creator, for there is no power (to be had by humans) over them. Rather speak of things that are excellent (within the power) of human beings." Tarnus Rufus asked him, "Why do you practice circumcision?" Akiva said to him, "I knew that you would ask me about this matter, and therefore I anticipated (your question) and I have (already) said to you that the creations of human beings are more beautiful than those of the Holy One blessed be He." Then Rabbi Akiva brought sheaves of grain and loaves of bread before him. He said, "These (sheaves) are the work of the Holy One blessed be He, and these (loaves) are the work of the hands of men. Akiva said to him, "Are not these (loaves of bread) more desirable than these sheaves?" Tarnus Rufus said to him, "If a person is more desirable after being circumcised, how come the newborn does not emerge circumcised from the womb of his mother?" Rabbi Akiva said to him, "Why is it that his umbilical cord comes out connected with him and his mother has to cut it off?!" And now, with respect to what you asked earlier, Why one is not born circumcised? Because the Holy One blessed be He, did not give the commandments to Israel for any reason other than they should refine (complete) themselves by them. As David said, "the way of the Lord is perfect; the word of the Lord is

pure; He is a shield to all who seek refuge in Him. (Psalms 18:31).⁵⁷

The work of creation is begun by God and completed by human beings. Two examples of this dynamic relationship are given in the story; human beings turn sheaves of grain into bread and fathers circumcise their sons. Both of these actions involve taking something created by God and bringing it into a state of increased usefulness and beauty. Lamm analyzes and explains this passage,

...So did R. Akiva proceed to explain the commandment of circumcision; both world and man were created incomplete, God having left it to man to perfect both his environment and his body. Similarly, the commandments, in general, were given in order that man thereby purify his character, that he attain spiritual perfection. Man, the created creator, must, in imitation of his Maker, apply his creative abilities to all life: his natural environment, his body, his soul.⁵⁸

Despite their sensitivity to the land and its Creator, the rabbis of the Talmud can not be described as being "ecologists" or as "environmentalists". They did however have a sense that the natural world existed as a finely balanced mechanism, as the creation of God, and they determined rules which provided for the care and preservation of the earth. Many of these regulations are in response to the Biblical injunction of *bal tashchit*, do not destroy.⁵⁹ Lamm clarifies the power of this important principle. He writes, "...*bal tashchit* is based on a religio-moral principle that is far broader than a commercial rule *per se* and its wider applications may well be said to include ecological considerations."⁶⁰

⁵⁷ Midrash Tanhuma, Tazria 5. This is my own translation of the passage.

⁵⁸ Lamm, p. 178.

⁵⁹ The concept of Bal Tashchit comes from Deuteronomy 20:19. "When in your war against a city you have to besiege it a long time in order to capture it, you must not destroy its trees, wielding the axe against them. You may eat of them, but you must not cut them down. Are the trees of the field human to withdraw before you into the besieged city?"

⁶⁰ Lamm, Faith and Doubt, p. 172.

From Halakhah

The following are examples of the rabbis' attempts to protect the water, the air, the soil, the limited resources, the animals and plants of God's world. These texts were not designed with the primary purpose of conservation. They represent laws enacted to protect the societal structure and the economic interests of the community.

הַצּוֹפֵה יָמִים בְּרֵשׁוֹת הַרְבִּים וְהִזְקָה
בְּהֵן אַחֵר, חַיִּיב בְּנֻקָּוֹ. הַמְצַנִּיעַ
אֶת-הַקּוֹץ וְאֵת הַזְּכוּכִית וְהַגֹּדֵר
אֶת-גֹּדְרוֹ יִבְקָצִים, וְגֵדֵר שֶׁנִּפְלַ
לְרֵשׁוֹת הַרְבִּים וְהִזְקָו בְּהֵן אַחֵרִים
חַרֵּב יִבְנֻקָּו.

If one pours water into the public domain and another was harmed thereby, he is liable for his injury. If one hide a thorn or glass [in the public domain], or if one make his fence out of thorns, or if [his] fence fell into a public domain, and others were injured thereby, he is liable for their injury.⁶¹

מִרְחִיקִין אֶת-יְהוּאֵילָן מִן-הָעִיר
עֶשְׂרִים וְחֲמִשָּׁ אַמָּה, יוֹבְהָרוֹב
וּבְשֶׁהֵמָּה חֲמִשִּׁים אַמָּה. אֲבָא שְׂאוּל
אוֹמֵר כָּל-אֵילָן סָרֵק חֲמִשִּׁים אַמָּה.

One must keep his tree at a distance of twenty-five cubits away from a town, and, in the case of a carob tree or sycamore, fifty cubits. Abba Saul says, Any non-fruit bearing tree [requires] fifty cubits...⁶²

⁶¹ Mishnah Baba Kamma 3:2. See also B. Baba Kama 30a.

⁶² Mishnah Baba Batra 2:7. See also B. Baba Batra 24b, "What is the reason for this regulation?—Ulla says, to preserve the amenities of the town."

מִרְחִיקִין יְגוֹרֵן קְבוּעַ מִן־הָעִיר
 חֲמִשִּׁים אַמָּה. לֹא יַעֲשֶׂה אָדָם
 יְגוֹרֵן קְבוּעַ בְּחוּף שְׁלוֹ אֵלָא אִם כֵּן
 יִתְּיָלוּ חֲמִשִּׁים אַמָּה לְכָל רוּחַ;
 וּמִרְחִיקֵי כְּנִטְיָעוּתָיו שֶׁל חֶבְרוֹ וּמְנִירוֹ
 כְּרִי שָׂדֵה יְנוּקֵי.

A fixed threshing-floor must be kept fifty cubits from a town. One may not make a permanent threshing-floor within his own property unless it extends fifty cubits on every side; and it must be at a sufficient distance from the plantations and newly broken land of his fellow to cause no damage.⁶³

כְּרִיתִיקִין אֶת־הַגְּבֻלוֹת, וְאֶת־	יְצוּקָא אָמַר לְכָל רוּחַ הוּא עוֹשֶׂה
הַקְּבֻעָה וְאֶת־הַבּוֹרִים מִן־	זוּלָּה כְּשֶׁעָרְבָה (וּמְנִירוֹ) לְיָמֵהּ
יְהִי עוֹשֶׂה אַמָּה וְאֵין עוֹשֶׂה	אַמָּה.
בּוֹרְסָקֵי אֵלָא לְמִנְרַת יְהִיעִיר. רַבִּי	

Carcasses, graves, and tanneries must be kept at fifty cubits' distance from a town. (And) a tannery may not be established save on the east side of the town...⁶⁴

בְּרִיתִיקִין אֶת־הַמְּשָׁרָה מִן־יְהִיעִיר.
 וְאֶת־הַקְּבֻעִין מִן־הַבְּצָלִים.
 וְאֶת־הַסְּרָדֵל מִן־הַבּוֹרִים. רַבִּי
 יוֹסֵי מְנִיר בְּחִרְדָּל.

One must keep his flax-steeping pond removed from the vegetables [belonging to his fellow] and leeks away from onions and mustard [plants] away from bees. R. Jose permits it in the case of mustard [plants].⁶⁵

⁶³ Mishnah Baba Batra 2:8. See also B. Baba Batra 24b, "Why is a fixed threshing-floor kept fifty cubits away from a town?—To prevent it doing damage."

⁶⁴ Mishnah Baba Batra 2:9. See also B. Baba Batra 24b-25a.

⁶⁵ Mishnah Baba Batra 2:10. See also B. Baba Batra 25a-25b.

הנהרות והמעיינות שמושכין, הרי הן של כל אדם.

Streams and flowing springs—lo, they belong to everybody.⁶⁶

הט רבנן *נותנין בל של מלח
לדוך הנר בשביל שהאור ותדליק ונותנין
טיט ותדחת תחת הנר בשביל שהמתין
ותדליק אמר רב זוטרא האי מאן דמכסי
שרגא דמישהא ומגלי נפמא קעבר משום
בל תשחית הגא ודאי לפום רבנן אין בו
משום דרכי האמור מעשה ברבי עקיבא
שעשה משחה לבנו ועל כל כוס וכוס
שהביא אמר הכרא ודאי לפום רבנן דאי
ורמרא לפום רבנן ולפום תלמידיהן :

Our Rabbis taught: A lump of salt may be placed in a lamp in order that it should burn brightly [the salt clarifies the oil]; and mud and clay may be placed under a lamp in order that it should burn slowly [these cool the oil and retard its flow]. R. Zutra said, He who covers an oil lamp or uncovers a naphtha [lamp] infringes the prohibition of wasteful destruction.⁶⁷

Clean air. Clear water. Pure soil. Abundant resources. Safe waste disposal. These were issues for the rabbis of the Mishnah and the Talmud. A caring relationship existed between human beings and the world around them. Harmful waste products were kept a safe distance from sources of drinking water. Industries which produced dust or noxious odors were kept down wind from residential areas. Resources were to be conserved.

The world in which these laws were written was radically different from today's world, yet the intent and the message is timeless. The men who wrote these laws could not have conceived of the ecological problems we face today, still, their words can give us guidance as we confront the myriad of environmental problems in our world today.

⁶⁶ Tosefta Baba Kamma 6:15.

⁶⁷ B. Shabbat 67b. A footnote to this text explains, "Derived from Deut XX, 19, q.v. Because these cause the lamp to burn with unnecessary speed."

Rabbi Marshall T. Meyer in addressing the immanence of war in the Persian Gulf makes a statement that applies not only to issues of war, but to issues of the environment as well, and it puts these Mishnaic and Talmudic citations into a context relevant for today. He writes,

... I think that my duty...is to state that what the classical Jewish sources have to say about the categories of war have nothing to do with the type of war that humankind faces today. We may look for guidance in the value system of our tradition, in the prophetic utterances that passionately deal with the terrible choices humans must make. I believe that we have to look for those passages which speak of the sanctification of human life, the search for Divine guidance, the wrestling of the soul in the face of confusion and doubt to find an echo of what it is that God wants of us at this hour.⁶⁸

His statement is an important reminder in connecting modern day environmental awareness with the ancient Jewish sources. The classical Jewish sources do not respond to the types of environmental problems we face today. They do not address issues of ozone, nuclear waste, or extinction of animal and plant species. Yet they do give guidance in developing values which will allow us to respond to these pressing issues. We must search these precious texts, as well as others, to find, "an echo of what it is that God wants of us at this hour."

Drawing from Judaism's traditional sources to respond to a modern problem is an area in which one must step gingerly. There are values to be drawn and parallels that can be constructed, but one must always be aware that the setting was different. There are however four broad categories, dating back to the rabbinic period, which can serve as divisions for exploring many of the ecological problems we face today.⁶⁹

⁶⁸ Rabbi Marshall T. Meyer, p. 6-7. Address to the Shalom Center Conference, January 6, 1991.

⁶⁹ Rabbi Mordechai Lieblich (Executive Director for the Federation of Reconstructionist Congregations and Havurot) brought these categories and some of the current applications to my attention.

- 1) ***Tzaar Baalei Hayim*** Respect of all Living Creatures. Endangered Species. Animal Rights. Preservation of Wildlife Refuges. Urban Planning.
- 2) ***Bal Tashchit*** Do Not Destroy. Ozone Depletion. Acid Rain. Deforestation of Rain Forests. Nuclear Weapons. War.
- 3) ***Sidrei Bereishit*** Respecting the Order of Creation. Hybridization of Species. Genetic Engineering. Allocation and Conservation of Natural Resources. Toxic Waste. Space Exploration.
- 4) ***Shabbat*** Resting from the Work of Creation. Sabbatical Years for Farmers and Land. Environmental Ethics.⁷⁰ Investment Guidelines.

Each of these Rabbinic categories includes various examples and guidelines dictating our interactions with the world around us. In addition, the environmental issues of today demand our immediate attention and response. Integrating the two components together could render a comprehensive response to vital issues of our generation from the wealth of our Jewish tradition.

TODAY'S JEWISH CARETAKERS

The 1990's have been dubbed by some as the decade of the environment. April 1990 saw the revival of Earth Day Celebrations and ushered in with them an increased awareness and concern for the health of our planet. We were inundated with television specials, with entire issues of magazines devoted to ecology, with mail solicitations from a variety of "earth friendly" organizations, and with pleas to recycle glass, newspapers, plastics, and aluminum. We all became familiar with the terms "global warming", "ozone" and "CFC". We pressured McDonalds to give up its polystyrene containers in favor of

⁷⁰ I have begun to explore environmental ethics from a Jewish perspective in a paper entitled "A Jewish Response to Ethical Issues of Global Warming." See also the unpublished paper by Rabbi Daniel Swartz, "Ethical Aspects of Global Warming."

paper and cardboard packaging and we prevailed upon many mothers and fathers to abandon disposable diapers in favor of cloth ones. We even poked fun at ourselves in comic strips.

Threats of drought, fears of shortages in medicines because the necessary plants were destroyed in the cutting down of the rainforests, risks of increased percentages of skin cancer and, dangers of overflowing landfills, motivate us to protect ourselves. These crises however do not often compel us to consider the cosmic, theological realm. In our fear, we do not tend to explore the spiritual component of being an inhabitant of God's Earth. With this approach to the environmental crisis Judaism can make an impact and add a new and helpful perspective to the discussion.

Organizations for Religious Environmentalists⁷¹

Individuals, synagogues and organizations have begun to respond to the religious and theological importance of the various environmental issues. The organizations described below provide a variety of resources and experiences for religiously minded individuals to become involved in ecological issues. These organizations provide opportunities for individuals and groups to observe the wonders of nature, to caring for them, and to recognize the Divine dimension of our responsibility to be caretakers.

Jewish National Fund

JNF has been concerned with developing the land of Israel, and thereby protecting its environment since 1901. Planting trees is a nearly perfect way to express concern for the environment. "Trees are the guardians of the earth; they improve the environment all around them. [The trees that JNF plants in Israel contribute to] saving the

⁷¹ This is not an exhaustive list. See Appendix for addresses and phone numbers of these organizations.

precious topsoil...removing the swamps...reclaiming the desert, the wastelands and the hillsides..."⁷² Beyond planting trees, JNF is involved in determining how to use the land and how to allocate its limited resources.

Neot Kedumim

Neot Kedumim, The Biblical Landscape Reserve in Israel, has been providing resources and insights into the ecology and the Bible since the 1930's. Nogah Hareuveni, through his research, his books and the creation of the Biblical and Talmudic Gardens outside of Jerusalem, has made a significant contribution to enhancing the cause of Jewish environmentalism. He shows, "how the land of Israel became an inseparable part of the very essence of the Jewish people and... [explains] the significance of this relationship to all those who accept the Bible as part of their cultural heritage..."⁷³

The Religious Action Center of Reform Judaism

The RAC is the political voice of the Reform Movement in Washington DC. It has published position papers, sermon ideas and resource materials regarding environmental issues. "The center will be issuing an environmental manual for congregations, Hebrew schools and youth groups later this year."⁷⁴ They are currently urging congregations to create recycling programs and to plant trees in their local communities. Additionally, the RAC is lobbying Congress regarding the National Energy Policy and the Resource Conservation and Recovery Bill.

⁷² From literature provided by Jewish National Fund, "Israel Needs Trees: Give Life, Give Love, Give Trees".

⁷³ Hareuveni, ...Biblical Heritage, p.6.

⁷⁴ Grossman, p. 13.

The Shalom Center

The Shalom Center is committed to creating a Jewish response to the environmental issues that confront us today.

Seven years ago, we were set up as the Jewish community's way of bringing together Jewish wisdom and Jewish action on how to prevent a nuclear holocaust. We were founded out of fear—the fear of disaster. Now we can work in hope—hope for a transformation that is only beginning. For during the past year, extraordinary events (have given us)... A chance to work together to heal our wounded planet from its environmental dangers. And since we so clearly live on one earth, to act that way...As these changes have emerged, The Shalom Center has been gathering Jewish thought on how to keep moving in a decent direction...⁷⁵

The Shalom Center sponsored a conference in January 1991, entitled, "Renewing Shalom: Moving from the Cold War to One Earth." I was able to attend this conference ⁷⁶ and participate in discussions with other concerned individuals as well as hear presentations given by experts in a variety of fields. Some of the ideas expressed in this chapter were developed from my participation with the Shalom Center.

Shomrei Adamah

Shomrei Adamah, A Jewish Resource Center for the Environment, was founded by Ellen Bernstein in 1988. It defines its mission in this way,

The wellspring of the Jewish tradition can provide invaluable guidance today as our generation faces critical environmental challenges: The mission of *Shomrei Adamah*, Guardians of the Earth, is to provide Jewish leaders and educators with liturgical, educational and

⁷⁵ From The Shalom Report #20, September/October 1990. The Shalom Center is A National Resource and Organizing Center for Jewish Perspectives on Moving Toward One Earth.

⁷⁶ I was fortunate to receive funding to attend this conference from the Cincinnati Bureau of Jewish Education, Temple Shalom of Cincinnati and the Hebrew Union College. I would again like to extend my thanks to Max Frankel, Joseph Eideason, Rabbi Gerry Walter and Peter Obermark for their support. The Shalom Center was also gracious in allowing me to serve as a volunteer on their staff in exchange for payment of the registration fee. תודה רבה .

resource materials which inspire an awareness of nature and promote an active practice of stewardship in home and community, based on our Jewish heritage.⁷⁷

Shomrei Adamah has received a great deal of publicity and hopefully will continue to inspire and motivate Jewish environmentalists.

The Society for the Protection of Nature in Israel.

SPNI, founded in 1953 has a "membership of fifty thousand Israelis, making it the country's largest, non-political, open membership organization of any kind."⁷⁸ The society runs tours and hikes of natural sites, and operates field study centers. It is also "involved in advocacy to confront the severe environmental threats facing Israel, including land use among a growing population and an increasingly limited water supply."⁷⁹

Some Conclusions

As these organizations illustrate, Jews, now more than ever, are drawing from Judaism's rich tradition for analyzing the ecological situation and for formulating suggestions for action.

...Judaism has a strong environmental bent, but incorporates it within a positive view of technology, industry, growth and, most importantly, of faith in the human being. If ecology is to be the issue of the 90's, the Jewish community needs to weigh in, in favor of legitimate concern for ecological damage. But we must create a God-man centered ecology movement, and not a pagan centered one.⁸⁰

⁷⁷ From literature provided by *Shomrei Adamah*. *Shomrei Adamah* is an independent project of the Federation of Reconstructionist Congregations and Havurot.

⁷⁸ Grossman, p. 11.

⁷⁹ Grossman, p. 11.

⁸⁰ Freundel, p., 26.

This imperative is further outlined in this plea urging Jews to fulfill their obligation to be co-workers with God in restoring the earth. The crucial element is partnership. The Biblical and Rabbinic sources show that the land and all its creatures and resources belong to God, the Creator. Human are encouraged to use, but not abuse, the gifts that the earth has to offer. It is a relationship built on trust and on preserving the world for future generations.

For Judaism, the guarantor of man's ideal future is God, but its architect is man himself. In establishing an ethical system in a world where man's powers have been dramatically enlarged beyond the wildest dreams of earlier generations, man is not attempting to play God or to usurp His throne. If he strives and succeeds in building an ethical society, he has the capacity, for the first time in his experience, to become, in the magnificent Rabbinic phrase, "God's co-partner in the work of creation".⁸¹

This is not a new concern for religiously minded individuals. In 1939, while conducting research in Jerusalem and the surrounding areas, Lowdermilk witnessed widespread destruction of the land and the attempts being made to rebuild and redevelop the arid land. He was inspired to compose this eleventh commandment which was broadcast over the radio and dedicated to the "Jewish colonies whose good stewardship in redeeming the damaged Holy Land was for me a source of great inspiration."⁸²

Thou shalt inherit the Holy Earth as a faithful steward,
conserving its resources and productivity from generation
to generation. Thou shalt safeguard thy fields from soil
erosion, thy living waters from drying up, thy forests from
desolation and protect thy hills from overgrazing by herds,

⁸¹ Gordis, "A Basis for Morals: Ethics in a Technological Age" p.43. Gordis notes, "The phrase is used, in a variety of contexts in Rabbinic literature, to refer to a judge rendering just decisions (B. Shabbat 10a), to one reciting the Biblical passage on the Sabbath in Gen. 2:1-3 (B. Shabbat 119b), and to the Patriarch Abraham (Midrash Bereshit Rabbah 43:8). Gittelson writes, "To my knowledge, Robert Gordis has not identified himself as a religious naturalist. Yet it would be difficult to state the naturalistic creed more succinctly than has he: '...The moral order is rooted in the universe and the natural order is the matrix of morality (The Root and the Branch, p. 164)', p.82.

⁸² Lowdermilk, p.22.

that thy descendants may have abundance forever. If any shall fail in this stewardship of the land, thy fruitful fields shall become sterile stony ground or wasting gullies, and thy descendants shall decrease and live in poverty or perish from off the face of the earth.⁸³

It is my belief that the most effective and far reaching way of fulfilling this commandment is through study and sensitivity to our Hebrew calendar. Our current ecological situation has arisen, in part, because of our distance from the natural world and our lack of sensitivity and dependence upon its cycles.

Oh, what a catastrophe for man when he cut himself off
from the
rhythm of the year,
from his union with the sun and the earth.
Oh, what a catastrophe, what a maiming of love when it
was a personal, merely personal feeling,
taken away from the
rising and setting of the sun,
and cut off
from the magic connection of the solstice and the equinox!
That is what is the matter with us.
We are bleeding at the roots,
because we are cut off from the earth
and the sun and the stars,
and love is a grinning mockery, because,
poor blossom,
we plucked it from its stem on the tree of Life,
and
expected it to keep on blooming in our civilized vase on the
table.⁸⁴

The Hebrew Calendar is a perfect vehicle for overcoming this catastrophe. It provides a mechanism for the religious environmentalists to regularly and meaningfully express a relationship with the natural cycles of the land and the heavens. It provides experiences and liturgies to help the individual to reach God through these festival celebrations of nature.

⁸³ Lowdermilk, p.22.

⁸⁴ D.H. Lawrence. As cited by Gendler in "On the Judaism of Nature" p.238-239.

Modern man dwells upon the order and power of nature; the prophets dwell upon the grandeur and creation of nature. The former directs his attention to the manageable and intelligible aspect of the universe; the latter to its mystery and marvel. What the prophets sense in nature is not a direct reflection of God, but an allusion to Him. Nature is not a part of God but rather a fulfillment of His will.⁸⁵

Jewish tradition, from the Bible, the Mishnah, the Talmud, and contemporary texts, brings a very special outlook to the environmental movement. Judaism contributes a religious and theological perspective to the Green Movement. It provides the opportunity for individuals to be like the prophets, dwelling on the grandeur of creation, marveling at its mystery, striving to know its Creator. The Hebrew calendar, tied so intimately to the observable and praiseworthy cycles of the moon, can on a monthly basis bring us into contact with the Divine. The festivals of our tradition, Pesach, Shavuot, and Sukkot, are constructed and developed around the harvest cycles, moments of praise and thanksgiving to God, who brought the crops to fruition. These are opportunities to meet the Creator through the wonders of the natural world.

We need to reconnect. To reintroduce into our lives the cycles of the moon and the sun, the wheat and the barley, the rain and the wind. By doing this we can ensure not only our continued existence on the planet, but its good health for future generations. But more importantly, our actions as caretakers, in partnership with God, will ensure the continuation of creation, and will perhaps speed the coming of the messianic days. The days in which we will continually be enraptured by the beauties of the natural world and experience a oneness, previously unknown, as we continue to create, together with the Creator the most perfect of worlds.

⁸⁵ Heschel, God in Search of Man, p.97.

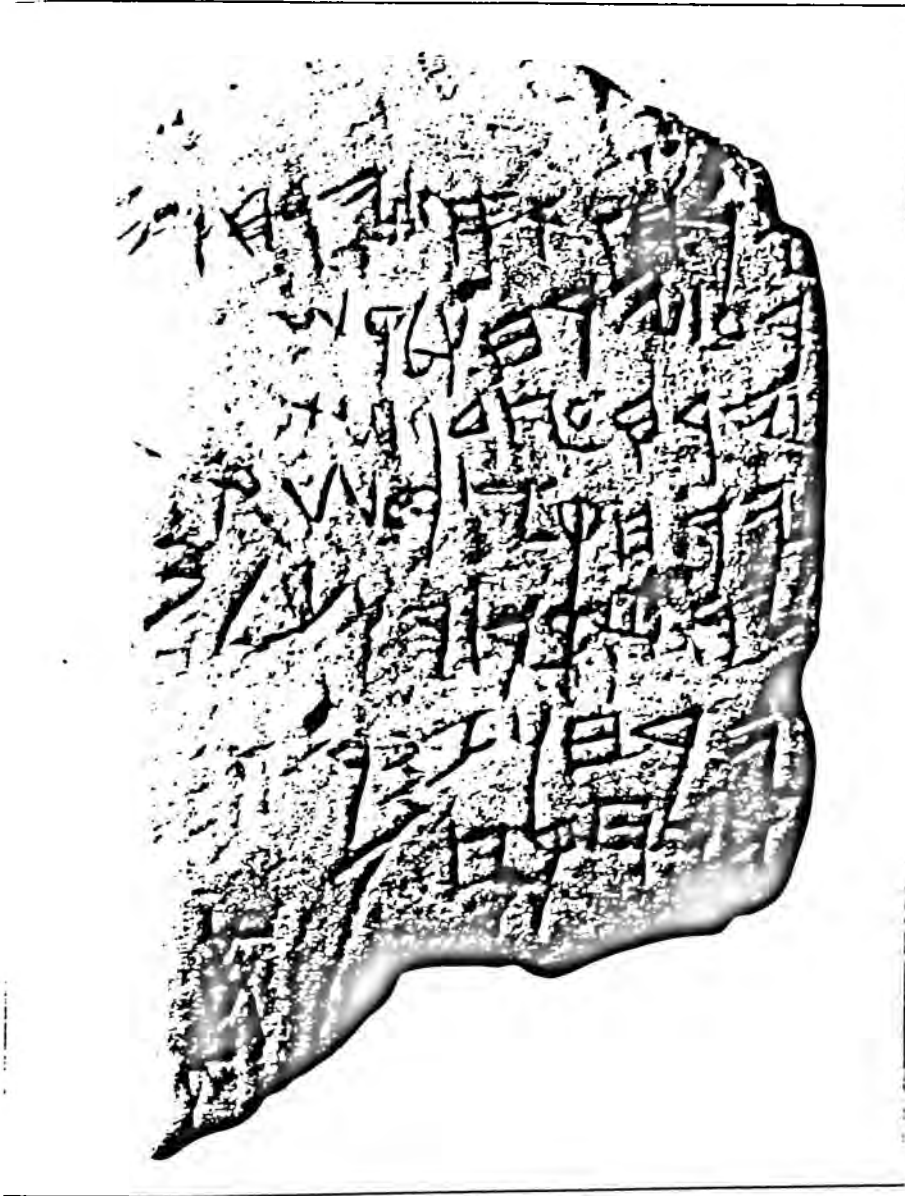
Master of the Universe—
Grant us the ability to be alone:
may it be our custom to go outdoors each day
among trees and grass,
among all growing things,
and there may we be alone,
and enter into prayer.
There may we express all that is in our hearts,
talking with the One to whom we belong.
And may all grasses, trees and plants
awake at our coming.
Send the power of their life
into our words of prayer,
making whole our hearts and our speech.⁸⁶

We can go outdoors each night and watch at the moon, following its path across the sky, its growth from crescent to fullness, from fullness to crescent and back again. We can go outdoors and marvel at the seasons which change; from spring, to summer, to autumn, to winter, and back again to spring. We can come to appreciate the miraculous qualities of the natural world, and we will be inspired, not only to praise the Creator but also to be participants in the ongoing cycles of Creation.

⁸⁶ Rabbi Nachman of Bratzlav as cited in, Adam Fisher, Seder Tu B'shevat (New York: CCAR Press, 1989) p.6-7.

Appendix

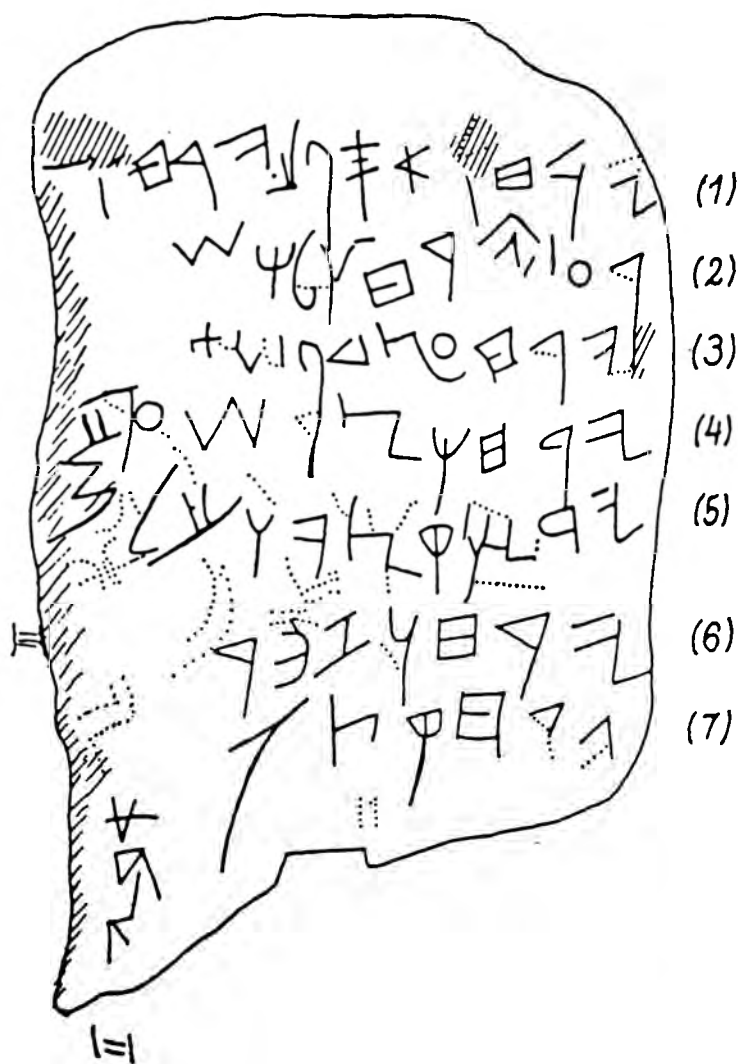
Photograph of the Gezer Calendar



From: Encyclopedia Olam Hatanach. Megillot. Israel: Ministry of Education and Culture, 1986, p.84.

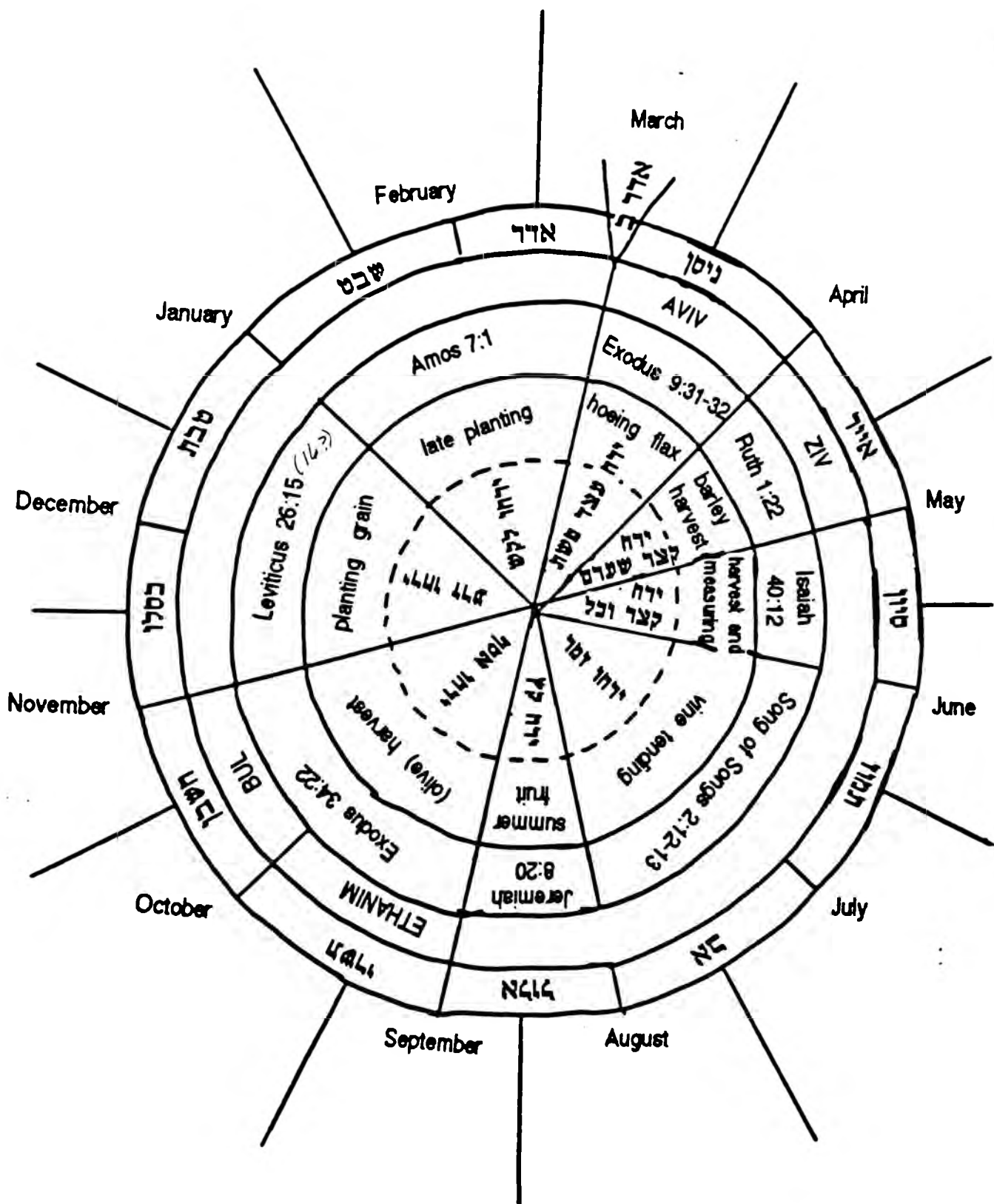
Drawing of the Gezer Calendar

Nr. 182



From: Donner, H.-Rollig, W. *Kanaanaische Und Aramaische Inschriften III*.
Weisbaden: Otto Harrassowitz, 1964, plate 12.

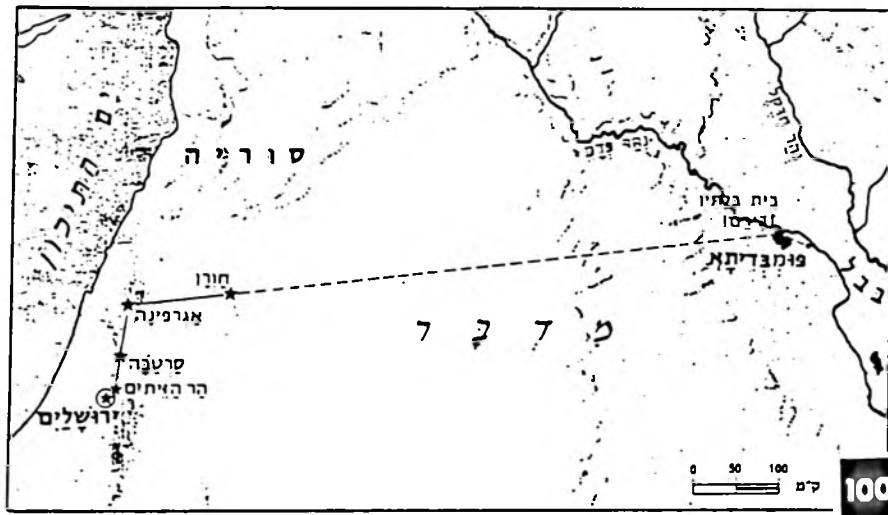
Comparative Chart of Gezer Months



The Path of the Beacons from Jerusalem to Babylonia

קו המשואות מירושלים לבבל

"בראשונה היו משיאין משואות"
משנה ראש השנה פ"ב, ב



משנה ראש השנה פ"ב, ד; בבלי ראש השנה כג, ע"ב

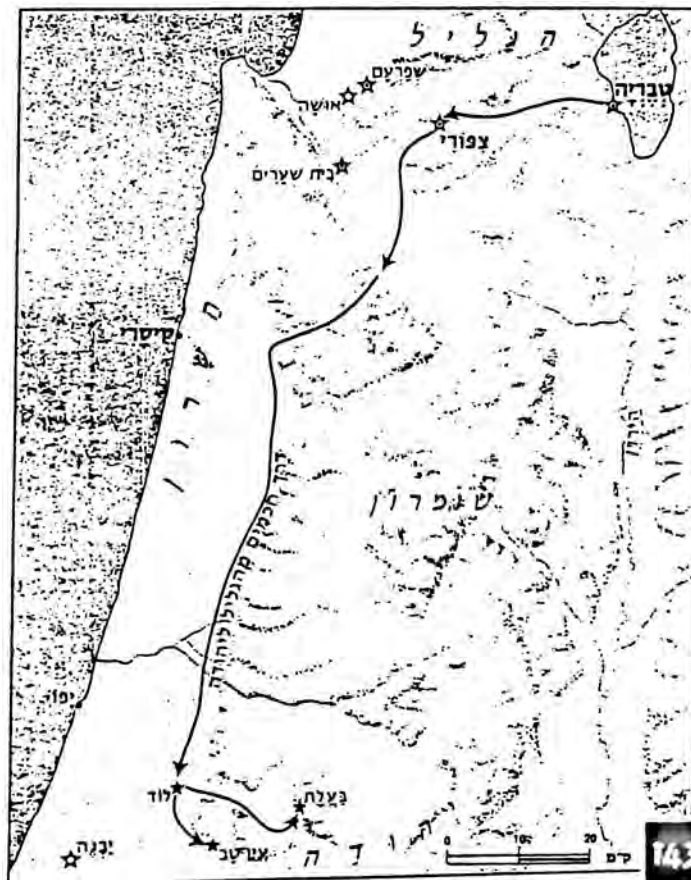
קו משואות
קו משואות משוער

From: Avi Yonah, Michael. Atlas Carta for the Period of the Second Temple, the Mishnah, and the Talmud. Jerusalem: Carta, 1966, p.67.

The Locations for the Sanctification of the New Moon and the Intercalation of the Year

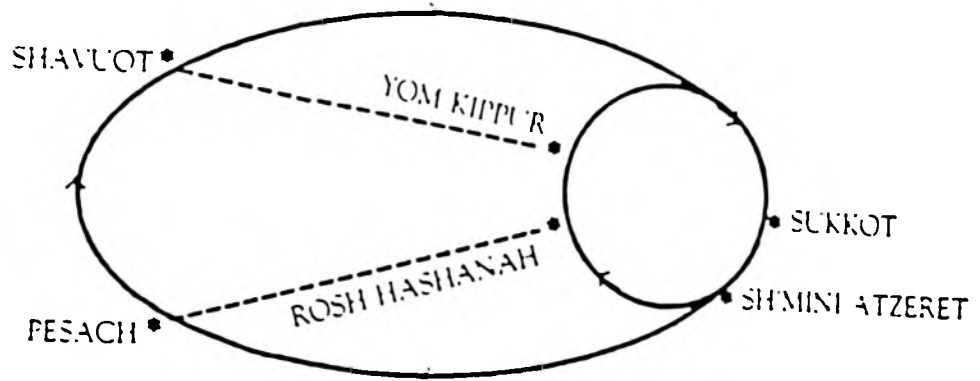
המקומות לקדוש החדש ולעבור השנה

שאינו מעברין שנים ואין קובעין
חדשים אלא בארץ ישראל
מכילתא דרשב"י



From: Avi Yonah, Michael. Atlas Carta for the Period of the Second Temple, the Mishnah, and the Talmud. Jerusalem: Carta, 1966, p.92.

The Paths of the Sun, the Moon and the Festivals



From: Waskow, Arthur. Seasons of Our Joy. (New York: Bantam Books, 1982), p.xviii.

Observation Report Form for Citing the New Moon

Observation Report

Name:

Hazy?

Location:

Cloudy?

Was Moon visible to the naked eye?

Age of observer:

Was Moon sighted in binoculars?

Observer's eyesight:

If so, was a naked-eye sighting also made?

Glasses?

Farsighted?

Exact times when Moon was observed:

Nearsighted?

Weather conditions:

Please send this information to:

Relative humidity:

Moonwatch

Temperature:

Nautical Almanac Office

Sky conditions near horizon:

U. S. Naval Observatory

Clear?

Washington, D. C. 20392, U.S. ...

From: Sky and Telescope Magazine. (July, 1988), p.35.

Shalom Center Proposal for Sukkat Shalom

The
Shalom
O, Shalom
CENTER

JEWISH PERSPECTIVES ON MOVING FROM COLD WAR TO ONE EARTH

Sukkat Shalom 1991: A Proposal

Since 1984, The Shalom Center has sponsored and assisted celebrations of Sukkat Shalom, a way of affirming on behalf of peace and environmental wholeness the traditional Jewish harvest festival of Sukkot and its fragile, vulnerable "sukkah" -- the hut with a leafy roof.

The traditional nightly Jewish prayer says, "Spread over us the sukkah of shalom -- the sheltering sukkah of security and peace." Why a "sukkah" of shalom -- not a tent, not a Temple, not any other structure than a sukkah?

Through the sukkah, Jewish tradition reminds us that real security comes not from burying ourselves in steel and concrete (as in a fallout shelter) but in recognizing together how vulnerable we are (as in an open sukkah). In the age of nuclear weapons and global warming, the whole human race lives in a sukkah.

And through the sukkah, Jewish tradition reminds us what it is like to live, eat, sleep, close to the earth -- in the simplest kind of shelter that could actually be made by human hands.

Sukkot was also, traditionally, the time when the Jewish people sought the blessings of peace and prosperity for all the 70 nations of the earth. It was a time when "ushpizin" -- guests both mystical and practical, our ancient forebears and the homeless of today -- were welcomed into the sukkah.

So Sukkat Shalom has become a time for self-education on the issues of preventing nuclear holocaust and the other environmental disasters that threaten all humanity and much of the rest of life on earth besides; a time for remembering the unmet human needs that surround us; a time for sharing and honoring our vulnerability among all the persons and peoples of the earth.

In 1991, Sukkot will end on Sunday, September 29. Traditionally, on the last day of Sukkot is held one of our more powerful, uncanny ceremonies: Hoshana Rabbah.

For Hoshana Rabbah, willow branches are beaten on the earth and as the Torah is seven times carried in procession, blessings are seven times invoked upon the earth -- for its peace and fruitfulness. There is a pattern and drama to this ceremony, and a deep sense that the very pattern itself evokes the rhythms of life.

What if we today drew on this ceremony as a framework to affirm protection of the earth from war and environmental destruction? Could we thus make clear (to

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ourselves and others) that our gathering is not merely a political rally but a recommitment to the covenant between adam (the earthling human race) and our cousin adamah (the earth, the humus)?

First, we could use the rhythm of the seven Hoshanas and their invocation of the God Who is the Breath of Life.

... Perhaps, between the seven Hoshanas, people would speak about seven different aspects of the protection we humans ourselves need to offer the earth. Here there would be "political" content -- teaching what we need to know if we are to act.

We could keep the beating of the willows. For us, that would reaffirm our commitment to protect the earth from nuclear fire and poison. Perhaps we could add the planting of a willow tree, so that we ourselves would join the moment of action to the moment of celebration .

... And perhaps we could add the pouring of water that when the Holy Temple stood was done on the first day of Sukkot, to invoke the coming of the rain. For us, it would reaffirm our commitment to make the rain, the lakes, and the oceans pure once more.

... Perhaps we could add the sharing of spices or incense -- breathable and airy -- that was also done when the Temple stood. For us, it would reaffirm our commitment to protect the atmosphere from the CO² that makes for global warming and the ozone that invites ultraviolet poisoning.

... Perhaps we would light a solar-powered lamp, a ner tamid ("light for the future") as the Temple lamp was called, a fire that would not destroy the earth's resources.

Perhaps this celebration could itself be held at a place that needs to be reminded of the covenant or that reminds us of the need to renew the covenant perhaps a nuclear weapons factory that has been pouring plutonium into the soil and water? an oil company that is intensifying global warming? a government agency that is opposing the international treaty to limit CO₂ emissions?

-- Or perhaps at a place that represents the carrying out of the covenant -- a place that is a foretaste of the world that needs to be -- such as a solar energy center, a bicycle path. Or perhaps at both such places -- the place of damage and the place of hope -- moving from one to the other?

And so we could celebrate earth, water, air, and fire in ways that both evoke Jewish tradition and bespeak the future.

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Jewish National Fund

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Neot Kedumim

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American Friends of Neot Kedumim

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The Religious Action Center of Reform Judaism

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Shalom Center

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A Jewish Stewardship Center
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212-887-1988

Society for the Protection of Nature in Israel

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