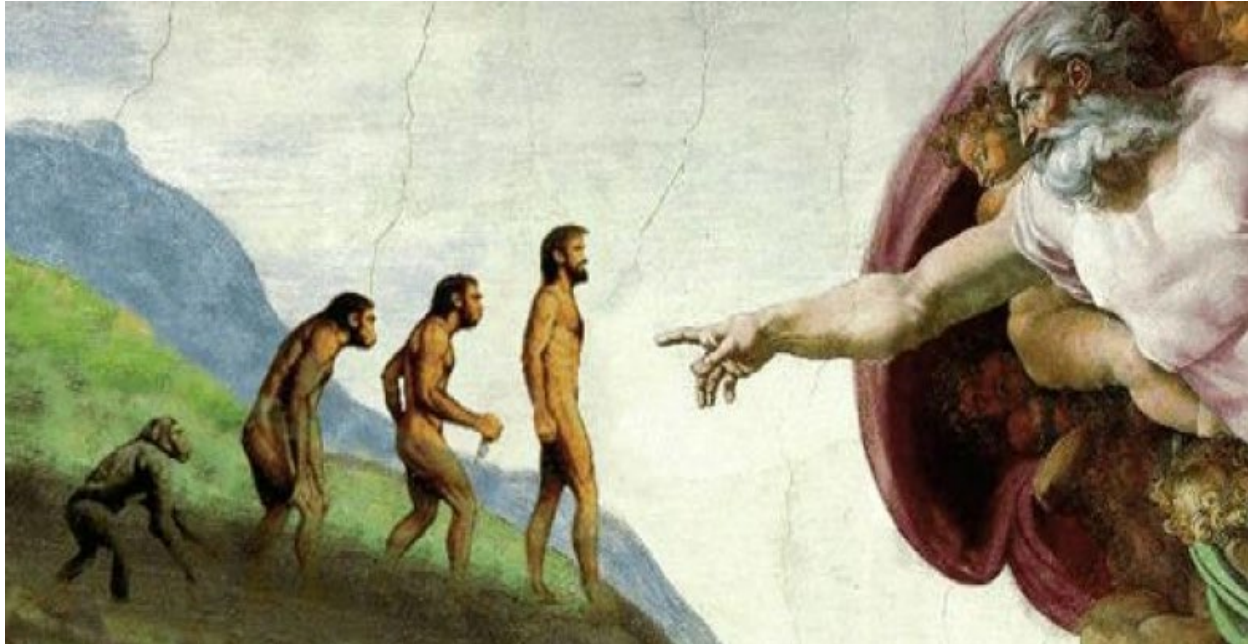


# What Hath God Wrought: <sup>בס"ד</sup> Scientific Progress in Jewish Thought



Tzvi Benoff  
LINCOLN SQUARE SYNAGOGUE

בעזה"ת

קונטרס

# מה פעל קל

מקורות ועיונים בהלכות חובבות הלבבות והאברים  
בענין התקדמות מדעית ועבודת ה' לאור התורה  
ודברי חכמיה מדורות האחרונים

מאת

צבי אריה בענאף

שנת תהא שנת פסיקת אנחה

# Dedication

קונטרס זה מוקדש כזכות לרפואה שלמה לכל חולי ישראל ובמיוחד לחולי  
קרונה

יה"ר שבזכות לימוד התורה במקביל לתשובה ותפילה וצדקה הקב"ה יעביר את רוע  
הגזירה וישלח מהרה רפואה שלמה מן השמים רפואת הנפש ורפואת הגוף השתא  
העגלה ובזמן קריב

וגם תעמוד לציון לשם עולם לעילוי נשמת אלו שמתו במגפה זו

ת. נ. צ. ב. ה.

יה"ר שבעל הרחמים יסתירם בסתר כנפיו לעולמים ויצרור בצרור החיים את נשמתם  
ותנוחם על משכבם בשלום ויעמדו בקץ הימים אל חיק משפחותיהם

ועד היום ההוא יה"ר מלפני אבינו שבשמים שינחם ויחזיק משפחתם וכל עמו בכח  
ברוחניות ובגשמיות להמשיך לעבדו באהבה, ביראה, ובשמחה לקדש את שמו בעולם.  
וינחם אותם בתוך שאר ישראל בראיית נחמת ציון וירושלים בקרוב ממש ובקיום דברי  
הנביא (ישעיהו כה:ח) "בִּלְעַם הַמָּוֶת לְנֹצֵחַ וּמָחָה אֶדְנִי יְקוֹק דְּמָעָה מֵעַל כָּל פְּנִים וְחָרַפַּת  
עֲמוֹ יִסִּיר מֵעַל כָּל הָאָרֶץ כִּי יְקוֹק דִּבֶּר."

\* \* \* \* \*

This work is dedicated as a merit for the speedy recovery of all those  
that are ill and in loving memory of those who perished in the  
COVID-19 pandemic.

May God speedily fulfill the words of Isaiah (25:8) "[God] will  
destroy death forever, and the Lord God shall wipe the tears off  
every face, and the shame of His people He shall remove from upon  
the entire earth, for the Lord has spoken."

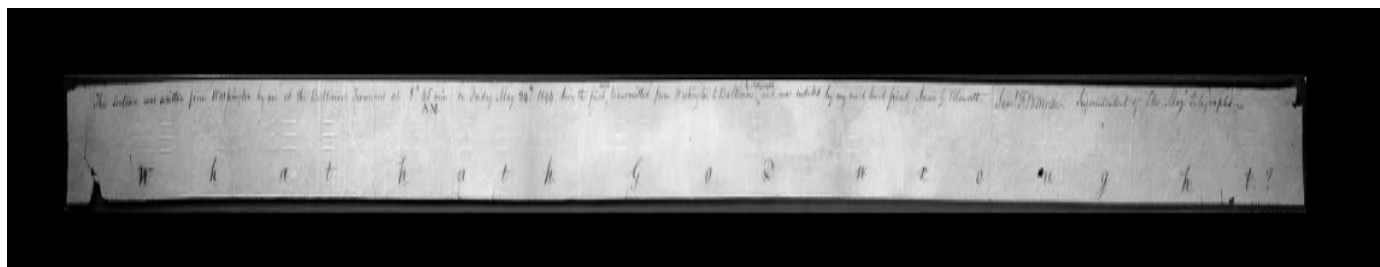
כִּי לֹא-נִחַשׁ בְּיַעֲקֹב וְלֹא-קָסַם בְּיִשְׂרָאֵל כְּעֵת יֵאמָר לְיַעֲקֹב  
וּלְיִשְׂרָאֵל מִה־פָּעַל אֱלֹ: (במדבר כג, כג)

**For there is no divination in Jacob and no soothsaying in Israel.  
In time it will be said to Jacob and Israel, 'What has God  
wrought'? (Numbers 23:23)**

\* \* \* \* \*

*"[These words inaugurated and sanctified] the American Telegraph with the name of its author... No words could have been selected more expressive of the disposition of my own mind at that time, to ascribe all the honor to Him to whom it truly belongs."*

- Samuel F. B. Morse



*"עתידה בת קול להיות מפוצצת על ראשי ההרים, ואומרת, מה פעל אל, כל מי שפעל [עם אל] יבוא ויטול שכרו. ורוח הקדש אומרת, מי הקדימני ואשלם, מי קלס לפני עד שלא נתתי בו נשמה" (פסיקטא דרב כהנא ט)*

*In the future a heavenly voice will spread across the mountaintops saying "What hath God wrought? All who have worked with God should come and take their reward!" And the heavenly spirit says, "Who can precede me and I will pay them? Who can praise me before I have given them a soul?"*

- Pesikta DeRav Kahana

## I - The Mandate of Scientific Progress

### 1. Pirkei Avos 3:14 – פרקי אבות ג:יד

הוא היה אומר, חביב אדם שנברא בצלם. חבה תתרה נודעת לו שנברא בצלם, שנאמר (בראשית ט) כי בצלם אלהים עשה את האדם. חביבין ישראל שנקראו בנים למקום. חבה תתרה נודעת להם שנקראו בנים למקום, שנאמר (דברים יד) בנים אתם לה' אלהיכם. חביבין ישראל שנתן להם כלי חמדה. חבה תתרה נודעת להם שנתן להם כלי חמדה שבו נברא העולם, שנאמר (משלי ד) כי לקח טוב נתתי לכם, תורתני אל תעזבו :



Rabbi Yisrael Lifschitz (1782-1860)  
Altona

He used to say: Beloved is man for he was created in the

image [of God]. Especially beloved is he for it was made known to him that he had been created in the image [of God], as it is said: “for in the image of God He made man”

(Genesis 9:6). Beloved are Israel in that they were called children to Hashem. Especially beloved are they for it was made known to them that they are called children of the Hashem, as it is said: “your are children to Hashem your God” (Deuteronomy 14:1). Beloved are Israel in that a precious vessel was given to them. Especially beloved are they for it was made known to them that the desirable instrument, with which the world had been created, was given to them, as it is said: “for I give you good instruction; forsake not my Torah” (Proverbs 4:2).

### 2. Tiferes Yisrael: Yachin on Pirkei Avos 3 - תפארת ישראל: יכין מסכת אבות פרק ג

(פח) חביב אדם. נ"ל דהאדם גרסינן דהיינו אפילו עכו"ם [כתוס' יבמות, דס"א א א'], דהרי מדסיים בסיפא חביבין ישראל ש"מ דרישא בכל מין האדם מיירי, ור"ל אפילו בעכו"ם, וכן הראיה דמייתי תנא מקרא דעשה את האדם, הרי בעכו"ם נמי מיירי, דלבני נח נאמר [וכמ"ש התוי"ט], וגם מלך עי והחמשה מלכים שתלה יהושע, הורידם קודם הערב, ש"מ שגם לעכו"ם יש צלם אלהים (א)

It appears to me that the correct version is “the [species] man” which comes to include gentiles.

For since the statement concludes “Beloved are Israel,” it implies that we are speaking about the



entire human species including gentiles. Another proof to this idea is that the Tanna brings [support] for this from the verse “made man” which also refers to gentiles. [Indeed,] regarding descendants of Noach it says, “and also the King of Ai and the five kings which Yehoshua slew were brought down before evening.” We learn from hear that even gentiles have *tzelem elokim*.



*"I am not surprised that men are not grateful to me; but I wonder that they are not grateful to God for the good which He has made me the instrument of conveying to my fellow creatures."*

- Dr. Edward Jenner (1749-1823)

### 3. Tiferes Yisrael: Boaz on Pirkei Avos 3 -

#### תפארת ישראל: בועז מסכת אבות פרק ג

(א) אמר המפרש ואגב דאתא לידן, נימא בה מלתא שמצוה לפרסמו... ואנחנו רואים כמה מחסידיהן שמלבד שמכירין יוצר בראשית, ומאמינין בתה"ק שהיא אלהית, ועושין ג"ח גם לישראל, וכמה מהן שהיטיבו ביותר לכל באי עולם, כהחסיד יענער שהמציא האפאקקענאימפפונג, שעל ידה ניצולים כמה רבבות בני

אדם מחולי וממיתה וממומין, ודראקא שהביא הקארטאפפעל לאיראפא, שמעכב כמה פעמים הרעב. וגוטענבערג שהמציא את הדפוס. וכמה מהן שלא נשתלמו כלל בעה"ז...

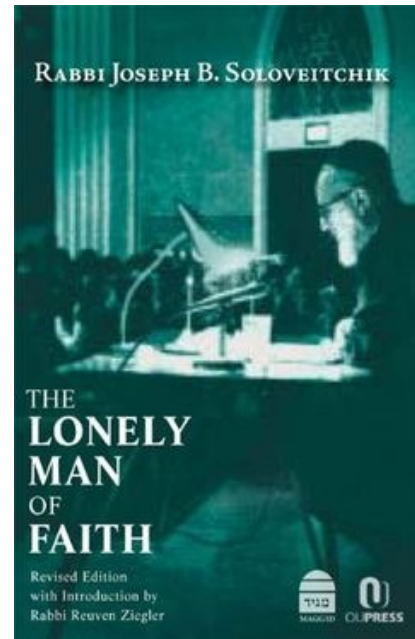
And once we have reached this topic, I will say something that must be publicized... **We have seen many righteous gentiles that aside from the fact that they recognize the Creator of the World (Hashem) and believe in the divinity of the Torah, they are kind to the Jews and many have done so much good for all of humanity like the pious [Edward] Jenner who invented the smallpox vaccine which saved tens of thousands of people from sickness, death, and deformities.**

[Similarly, Sir Francis] Drake who brought the potato to Europe that prevented many famines and [Johannes] Guttenberg who invented the printing press. And many of these have not been rewarded in this world...

#### 4. The Lonely Man of Faith Chapter 1

There is no doubt that the term "image of God" in the first account refers to man's inner charismatic endowment as a creative being. Man's likeness to God expresses itself in man's striving and ability to become a creator...

God, in imparting the blessing to Adam the First and giving him the man-date to subdue nature, directed Adam's attention to the functional and practical aspects of his intellect through which man is able to gain control of nature...Adam the First is overwhelmed by one quest, namely, to harness and dominate the elemental natural forces and to put them at his disposal...



What is Adam the first out to achieve? What is the objective toward which he incessantly drives himself with enormous speed? The objective, it is self-evident, can be only one, namely, that which God put up before him: to be "man," to be himself. Man is an honorable being. In other words, man is a dignified being and to be human means to live with dignity... "Thou hast made him to have dominion over the works of Thy hands. Thou hast put all things under his feet." In other words, dignity was equated by the Psalmist with man's capability of dominating his environment and exercising control over it. Man acquires dignity through glory, through his majestic posture vis-a-vis his environment.

Hence, dignity is unobtainable as long as man has not reclaimed himself from coexistence with nature and has not risen from a non-reflective, degradingly helpless instinctive life to an intelligent, planned, and majestic one...Life in bondage to insensate elemental forces is... an undignified affair.

Man of old who could not fight disease and succumbed in multitudes to yellow fever or any other plague with degrading helplessness could not lay claim to dignity. Only the man who builds hospitals, discovers therapeutic techniques, and saves lives is blessed with dignity... Civilized man has gained limited control of nature and has become, in certain respects, her master, and with his mastery he has attained dignity as well.

Hence, Adam the First is aggressive, bold, and victory-minded. His motto is success, triumph over the cosmic forces. He engages in creative work, trying to imitate his Maker (imitatio Dei)...

In doing all this, Adam the First is trying to carry out the mandate entrusted to him by his Maker who, at dawn of the sixth mysterious day of creation, addressed Himself to man and summoned him to "fill the earth and subdue it." It is God who decreed that the story of Adam the first be the great saga of freedom of man-slave who gradually transforms himself into man-master. While pursuing this goal, driven by an urge which he cannot but obey, Adam the first transcends the limits of the reason-able and probable and ventures into the open spaces of a boundless universe. Even this longing for vastness, no matter how adventurous and fantastic, is legitimate. Man reaching for the distant stars is acting in harmony with his nature which was created, willed, and directed by his Maker. It is a manifestation of obedience to rather than rebellion against God.

*“For this is what America is all about. It is the uncrossed desert and the unclimbed ridge. It is the star that is not reached and the harvest sleeping in the unplowed ground. Is our world gone? We say "Farewell." Is a new world coming? We welcome it--and we will bend it to the hopes of man.”*

- Lyndon B. Johnson  
1965 Inaugural Address



## II – The Spiritual Cost of Scientific Progress

### 5. Lonely Man of Faith Ch. 1-2 (excerpts)

**Modern science has emerged victorious from its encounter with nature because it has sacrificed qualitative-metaphysical speculation for the sake of a functional duplication of reality ...** [Adam 1] is not fascinated by the question, "Why does the cosmos function at all? nor is he interested in the question, ""What is its essence?" He is only curious to know how it works... nurtured by the selfish desire on the part of Adam to better his own position in relation to his environment...

**He looks for the image of God not in the mathematical formula or the natural relational law but in every beam of light, in every bud and blossom, in the morning breeze and the stillness of a starlit evening. In a word, Adam the second explores not the scientific abstract universe but the irresistibly fascinating qualitative world where he establishes an intimate relation with God...**

Adam the second lives in close union with God. His existential "I" experience is interwoven in the awareness of communing with the Great Self whose footprints he discovers along the many tortuous paths of creation.

### 6. Sanhedrin 102b – :סנהדרין קב

Rav Ashi ended [his lecture] just before reaching [the topic] of the three kings. He said to his students: Tomorrow we will begin with our 'colleagues' [the three kings]	רב אשי אוקי אשלשה מלכים אמר למחר נפתח בחברין
Manasseh came and appeared to him in his dream. [He] said to him angrily: You called us your colleague and the colleagues of your father? [How dare you characterize yourself as our equal?] [I will ask you], from where are you required to begin cutting a loaf of bread [when reciting the blessing]: Who brings forth bread from the earth? Rav Ashi said to him: I do not know. Manasseh said to him: Even this, from where you are required to begin cutting a loaf of bread when reciting the blessing: Who brings forth bread	אתא מנשה איתחזי ליה בחלמיה אמר חברך וחברי דאבוך קרית לן מהיכא בעית למישרא המוציא אמר ליה לא ידענא א"ל מהיכא דבעית למישרא המוציא לא גמירת וחברך קרית לן א"ל אגמריה לי

<p>from the earth, you did not learn, and yet you call us your colleague? Rav Ashi said to Manasseh: Teach me this halakha and tomorrow I will lecture and cite it in your name during my lecture. Manasseh said to him: One cuts the loaf from where it crusts as a result of baking.</p>	<p>ולמחר דרישנא ליה משמך בפירקא א"ל מהיכא דקרים בישולא</p>
<p><b><u>Rav Ashi said to [King Menasseh in a dream]: Since you were so wise, what is the reason you engaged in idol worship? [Manasseh] said to him: Had you been there [at that time], you would have lifted the hem of your cloak and run after me [due to the fierce desire to engage in idol worship].</u></b> The next day Rav Ashi said to the Sages as a prelude to his lecture: We will begin with the treatment of our teachers, [those kings who were greater than us in Torah knowledge].</p>	<p>א"ל מאחר דחכימתו כולי האי מאי טעמא קא פלחיתו לעבודת כוכבים? א"ל אי הות התם הות נקיטנא בשיפולי גלימא ורהטת אבתראי. למחר אמר להו לרבנן נפתח ברבוותא</p>

## 7. Seder Olam Rabbah Ch. 30 – סדר עולם רבה פרק ל

<p>“The horned ram, that is the king of Greece; the mighty horn that is between his eyes, that is the first king.” (Dan. 8:21) “A valiant king will arise ... and when he arises, his kingdom will be broken and separated in the four directions of the sky.” (Dan. 11:3-4) <b><u>That is Alexander the Macedonian who ruled for 12 years. Until that time there were prophets prophesying by the Holy Spirit; from there on (Prov. 22:10) “bend your ear and listen to the words of the wise,”</u></b> ... And so it says (Deut. 32:7): “Ask your father and he will tell you, your elders and they will inform you.” I could think of old men from the market place, the verse says “they will inform you.” From this you learn that an elder is a man who has acquired wisdom.</p>	<p>הצפיר השעיר מלך יון וגו' הוא המלך הראשון (דניאל ח כא) ועמד מלך גבור וגו' וכעמדו תשבר וגו' (שם יא ג), הוא אלכסנדרוס מקדון שמלך י"ב שנה, עד כאן היו הנביאים מתנבאים ברוח הקדש, מכאן ואילך, הט אזנך ושמע דברי חכמים (משלי כב יז), ... וכן הוא אומר, שאל אביך ויגדך זקניך ויאמרו לך (דברים לב ז), יכול זקני השוק, תלמוד לומר ויאמרו לך, הא למדת שזקן זה שקנה חכמה,</p>
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## 8. Vilna Gaon's Commentary to Seder Olam – פירוש הגר"א שם

עד כאן היו הנביאים, פירוש משהרגו את היצר הרע בטלה הנבואה:

“Until then there were prophets.” That means that when they slew the Evil Inclination, prophecy ceased

## 9. Yoma 69b – יומא טט:

<p>“They cried with a loud voice to the Lord God (Nehemiah 9:4). What was said? Rav said, and some say it was Rabbi Yoḥanan said: Woe, woe. It is this, [the evil inclination for idol worship] that destroyed the Temple, and burned its Sanctuary, and murdered all the righteous ones, and caused the Jewish people to be exiled from their land. And it still dances among us, [it still affects us]. Didn’t You gave it to us for solely for the purpose of receiving reward [for overcoming it]. We do not want it, and we do not want its reward.</p>	<p>ויצעקו אל ה' אלהים בקול גדול (נחמיה ט, ד) מאי אמור אמר רב ואיתימא ר' יוחנן ביא ביא היינו האי דאחרביה למקדשא וקליה להיכליה וקטלינהו לכולהו צדיקי ואגלינהו לישראל מארעהון ועדיין מרקד בין כלום יהבתי לן אלא לקבולי ביה אגרא לא איהו בעינן ולא אגריה בעינן</p>
<p>A note fell to them from the heavens upon which was written: Truth, [indicating that God accepted their request]. (Rav Ḥanina said: Learn from this that the seal of the Holy One, Blessed be He, is truth.)</p>	<p>נפל להו פיתקא מרקיעא דהוה כתב בה אמת. (אמר רב חנינא שמע מינה חותמו של הקב"ה אמת.)</p>
<p>They observed a fast for three days and three nights, and He delivered the evil inclination to them. A form of a fiery lion cub came forth from the chamber of the Holy of Holies. Zechariah the prophet said to the Jewish people: This is the evil inclination for idol worship, as it is stated in the verse that refers to this event: “And he said: This is the evil one” (Zechariah 5:8).</p>	<p>אותיבו בתעניתא תלתא יומין ותלתא לילואתא מסרוהו ניהליהו נפק אתא כי גוריא דנורא מבית קדשי הקדשים אמר להו נביא לישראל היינו יצרא דעבודת כוכבים שנאמר (זכריה ה, ח) ויאמר זאת הרשעה</p>
<p>When they caught hold of it one of its hairs fell, and it let out a shriek of pain that was heard for four hundred parasangs. They said: What should we do [to kill it]? Perhaps, Heaven forbid, they will have mercy upon him from Heaven, [since it cries out</p>	<p>בהדי דתפסוה ליה אשתמיט ביניתא ממזייא ורמא קלא ואזל קליה ארבע מאה פרסי אמרו היכי נעביד דילמא חס ושלום מרחמי עליה מן שמיא</p>

<p>so much]. The prophet said to them: Throw it into a container made of lead and seal the opening with lead, since lead absorbs sound. As it is stated: “And he said: This is the evil one. And he cast it down into the midst of the measure, and he cast a stone of lead upon its opening” (Zechariah 5:8). [They followed this advice and were freed of the evil inclination for idol worship.]</p>	<p>אמר להו נביא שדיוהו בדודא דאברא וחפיוהו לפומיה באברא דאברא משאב שאיב קלא שנאמר (זכריה ה, ח) ויאמר זאת הרשעה וישלך אותה אל תוך האיפה וישלך את אבן העופרת אל פיה</p>
<p>The Sages said: Since it is an auspicious time, let us pray also concerning the evil inclination for sin in the area of sexual relationships. They prayed, and it was also delivered into their hands.</p>	<p>אמרו הואיל ועת רצון הוא נבעי רחמי איצרא דעבירה בעו רחמי ואמסר בידייהו</p>
<p>[Zechariah] said to them: See and understand that if you kill this [evil inclination], the world will be destroyed because [as a result there will no longer be any desire to procreate]. They followed his warning, and instead of killing it, they imprisoned it for three days. They searched for a fresh egg throughout all of Eretz Yisrael and could not find one.</p>	<p>אמר להו חזו דאי קטליתו ליה להוא כליא עלמא חבשוהו תלתא יומי ובעו ביעתא בת יומא בכל ארץ ישראל ולא אשתכח</p>
<p>They said: What should we do? If we kill it, the world will be destroyed. If we pray for half, i.e., that only half its power be annulled, nothing will be achieved because Heaven does not grant half gifts, only whole gifts. What did they do? They gouged out its eyes, effectively limiting its power, and set it free. And this was effective to the extent that a person is no longer aroused to commit incest with his close relatives</p>	<p>אמרי היכי נעביד נקטליה כליא עלמא ניבעי רחמי אפלגא פלגא ברקיעא לא יהבי כחליניהו לעיניהו ושבקהו ואהני דלא מיגרי ביה לאיניש בקריבתה</p>

### **10. B'reishis Rabbah 9:9 – ט, ט – בראשית רבה**

והנה טוב מאד זה יצר רע, וכי יצר הרע טוב מאד, אתמהא, אלא שאלולי יצר הרע לא בנה אדם בית ולא נשא אשה, ולא הוליד ולא נשא ונתן

“Very good” refers to the evil inclination. Is the evil inclination very good?! Rather, without the evil inclination, humanity would not build houses, marry, reproduce, or conduct business.



### 11. Michtav Me'Eliyahu Vol. 3 pg. 233 – מכתב מאליהו חלק ג

We find in the words of Rabbi Tzadok Hakohen of Lublin that as long as the evil instinct of idolatry existed, there was prophecy to counterbalance it, and there were visible miracles in Israel. For “God created [forces] to oppose one another.” **For there is always a balance between the powers of holiness and impurity. And as long as there was prophecy in the world, by which sensory/visceral faith is attained, there were also visceral forces facilitating [the credibility] idolatry ... so that it free choice is preserved.** **We also see that in the early days of the Second Temple the desire for idolatry was destroyed, and conversely prophecy also ceased from the Jews.** And even though the need to eliminate the instinct of idolatry was so clear to them that they were willing to give up such high levels [of spirituality], they nevertheless did not fast until the note fell from heaven that had the word “truth” written on it.

ומצינו בדברי רבי צדוק הכהן ז"ל, שכל עוד שהיה קיים יצר הרע של עבודה זרה, היתה כנגדו הנבואה, והיו נסים גלויים בישראל, **כי זה לעומת זה עשה האלקים, שכן לעולם יש שיווי משקל בין כחות הקדושה והטומאה, וכל זמן שהיתה נבואה בעולם, שעל ידה משיגים אמונה חושית, היו לעומתה גם כחות טומאה מוחשים, שפעלו לצד העבודה זרה... וזה כדי שתשאר בחירה חפשית. וכן רואים אנו שבתחלת ימי בית השני בטל יצרא דעבודה זרה, ולעומתו פסקה גם הנבואה מישראל, והנה אף שהצורך לביטול היצר של עבודה זרה היה ברור להם כל כך, עד שהיו מוכנים לוותר על מדרגות רמות כאלה, מכל מקום לא התענו עד שנפלה להם פיתקא מרקייעא דהוה כתיב בה אמת,**





(L to R) Alexander the Great kneels before Shimon HaTzaddik; Alexander the Great learning from his teacher Aristotle

## 11. Speech of Angels: Addendum (R' Zadok) – שיחת מלאכי השרת: נוספות

Aristotle who was the greatest of the sages of the nations of the world in secular wisdom was a contemporary of Shimon Hatzadik who was the greatest of the sages of the Truth – the sages of the Mishnah and Oral Law. For God created opposing forces. All of the sages of the nations of the world before [Aristotle and Greek philosophers] had their wisdom rooted in the supernatural... and the sages of Greece began to establish the wisdom of science and study the nature of things, though they only attributed it to the laws nature. But the wisdom of the sages of the Jews is to recognize in wisdom that God oversees the world and “rides” upon angels who are the spiritual forces of nature. And the experience of prophecy, the vision of heaven opening up to them, facilitated a visceral knowledge of God and His glory filling the world. [This was lost by the advent of science and Oral Torah.]

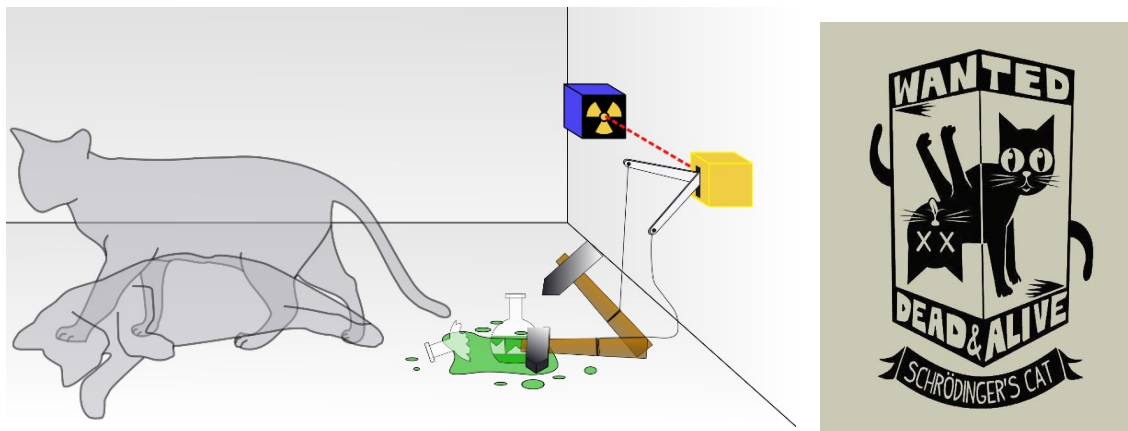
אריסטו ראש לחכמי האומות  
בחכמות חיצונית... היה גם כן בימי  
שמעון הצדיק כידוע ראש חכמי  
אמת חכמי המשנה ותורה שבעל פה.  
 כי זה לעומת זה עשה אלקים. וכל  
 חכמי אומות העולם שלפניו כל  
 חכמתם בכשפים ... וחכמי יון  
 התחילו לייסד חכמת הטבע  
 ולהתבונן על טבע כל דבר רק שהם  
 ייחסו הכל לטבע. וחכמת חכמי  
 ישראל הוא להכיר בחכמה שבאמת  
 השם יתברך מנהיג הבריאה ורוכב על  
 המלאכים שהם רוחניות כוחות  
 הטבעים. וההכרה בנבואה היינו  
 במראה שנפתחו לפניו ארובות  
 השמים ועל ידי זה הוא ראייה  
 ממשיית מעצמות השם יתברך  
 דממלא כל עלמין ומלא כל הארץ  
 כבוד:

### III – The Utility of Scientific Progress

#### 12. Bava Metzia 42a

ת"ר ההולך למוד את גורנו אומר יהי רצון מלפניך ה' אלהינו שתשלח ברכה במעשה ידינו התחיל למוד אומר ברוך השולח ברכה בכרי הזה מדד ואח"כ בירך הרי זה תפילת שוא לפי שאין הברכה מצוייה לא בדבר השקול ולא בדבר המדוד ולא בדבר המנוי אלא בדבר הסמוי מן העין שנאמר יצו ה' אתך את הברכה באסמך

The Sages taught: One who goes to measure the grain on his threshing floor recites: May it be Your will, O Lord, our God, that You send blessing upon the product of our hands. If one began to measure the grain he says: Blessed is He Who sends blessing upon this pile of grain. If one measured and afterward recited this blessing, this is a prayer made in vain, **because blessing is found neither in a matter that is weighed, nor in a matter that is measured, nor in a matter that is counted.** Rather, it is found in a matter concealed from the eye, as it is stated: "The Lord will command blessing with you in your storehouses". And Rabbi Yitzhak says: Blessing is found only in a matter concealed from the eye, as it is stated: "The Lord will command blessing with you in your storehouses" (Deuteronomy 28:8), where the grain is concealed.



#### 13. Mahar"l Chiddushei Agados Shabbos 113b – מהר"ל חידושי אגדות שבת קיג:

כי הברכה שיהיה מתברך ומוסיף תמיד, ודבר זה סמוי מן העין, שכאשר ראה אותו העין כבר הוא בפעל, שכל אשר העין שולט בו הוא בפעל, שהרי כבר הוא נראה ובדבר שכבר יצא לפעל, וכבר היה מה שהיה, איך יהיה בו ברכה. אבל דבר זה שאין העין שולט בו, ואינו נמצא עדיין בפעל, יש ברכה

For blessings mean that it is continuously blessed and adding. And this is concealed from the eye for when the eye sees something, it is already in finite, actuated existence. For everything the eye rules over is in existence, since it can be seen. And something that has come into existence and is what it can be, how can there be blessing [in it]?! But something that the eye does not rule over and is not yet in existence, there can be blessing.

#### **14. Maharal Chiddushei Aggados Bava Metzia**

##### **מהר"ל חידושי אגדות בבא מציאה מב. 42a –**

אין הברכה מצויה וכו'. והטעם ידוע, מפני כי העין הוא שנותן גבול לכל דבר, והברכה אין גבול לה, שזהו עניין הברכה

“Blessing cannot be found in something unless it hidden from the eye.” The reason is because the eye imbues everything with boundaries and blessings have no boundaries since that is the essence of a blessing



#### **15. Maharal Nesiv Avodah 18 – מהר"ל נתיב עבודה פרק יח**

כי הברכה באה מלמעלה למטה... וצריך שיהיה אמצעי אשר הוא שייך למעלה ושייך למטה, שעל ידו הברכה באה למטה, וזה בית המקדש, כי בית המקדש הוא מחבר עליונים ותחתונים, ולכך על ידו באים הברכות לעולם מעליונים לתחתונים

For blessings come from above to below... and there needs to be an intermediary that is connected to both realms through which the blessings can descend. This is the Beis Hamikdash, for it connects the upper and lower realms and through it blessings descend from above to below.

#### **16. Pesachim 50b - פסחים נ: -**

העושה מלאכה בערבי שבתות וימים טובים, מן המנחה ולמעלה - אינו רואה סימן ברכה לעולם  
Whoever does work on *Erev Shabbos and Erev Yom Tov* from the afternoon and onward will not see an indication of blessing from it forever.

### **17. Taz Orach Chaim 468:1 – ט"ז אר"ח תסח:א**

היינו אף אם יש לו איזה ריוח מזו יהיה לו כנגדו הפסד ממקום אחר

“Forever” means that even if the person receives any financial gain [from that work], they will suffer a loss from another area [of their financial assets].

### **18. Taanis 25a – תענית כה.**

חד בי שמשי חזייה לברתיה דהוות עציבא אמר לה בתי למאי עציבת אמרה ליה כלי של חומץ נתחלף לי בכלי של שמן והדלקתי ממנו אור לשבת אמר לה בתי מאי איכפת לך מי שאמר לשמן וידלוק הוא יאמר לחומץ וידלוק תנא היה דולק והולך כל היום כולו עד שהביאו ממנו אור להבדלה

One Friday night, Rabbi Ḥanina ben Dosa saw that his daughter was sad. He said to her: My daughter, why are you sad? She said to him: I confused a vessel of vinegar for a vessel of oil and I lit the Shabbat lamp with vinegar. He said to her: My daughter, what are you concerned about? He Who said to the oil that it should burn can say to the vinegar that it should burn. A tanna taught: That lamp burned continuously the entire day, until they brought from it light for *havdala*.

## IV - The Redemption of Scientific Progress

### 19. Responsa of R' Zvi Hirsch Chajes 11 – שו"ת מהר"ץ

#### חיות סי' יא

הש"ת הביט וראה מראשית, וגבולות חלק לכל הזמנים והדורות להשלמת החכמות, ולא כל העתות שוות בזה עתים חשים ואין חוון החכמה נפרץ ועתים ממללים בתבונה וכעלי החכמה והסגולה מרובים ואיך לך דבר שאיו לו זמן ומקום והכל ברצון השם יתברך שהוא קורא הדורות מראש.

Hashem saw [all] from the beginning of time and set boundaries for intellectual development for each era and generation. And not every generation was equal; some eras were weak and no visions of

wisdom sprouted, and other times were filled with wisdom and many great, wise men. Everything has its proper time and place; everything according to the will of Hashem who orchestrates generations from the beginning [of time].



### 20. Zohar 1:117a – זהר חלק א קיז.

ובשית מאה שנין לשתינאה יתפתחון תרעי דחכמתא לעילא ומבועי דחכמתא לתתא

And in the 600<sup>th</sup> year of the 6<sup>th</sup> millennium (5600=1700s), the gates of heavenly wisdom will open and the lower wellsprings of wisdom shall open



### 21. Orot Hakodesh 1:6 (Rabbi Avraham Y. Kook) – אורות הקודש חלק א סימן ו

As scientific inquiry progresses and discovers insights in the field of the early development of the universe ... [which] so closely resembles the [spiritual creation process], the wisdom of [physical] creation becomes more revealed as it is sought after by society and vitalizes its spirit.

כשהחקירה המדעית הולכת ומוצאת דיוקים מכוונים בתוך העלילות כולן של התוהו והבהו... כ"כ מתאימות הן למטרת הבנין הגמור בשכלולו הולכת בזה חכמת מעשה בראשית להיות יותר ויותר חכמה גליה שנדרשת ברבים ושנותנת מחיה לרוחות רבים.



<p><b>And proportional to the exposure to the secrets of [physical] creation, is the wisdom of spiritual creation thus imbued and emmeshed into [everyday] life, consciousness, and experience [of the masses]... The spirituality proceeds to elevate and refine [the consciousness and desires] of humanity and the world...</b></p>	<p><u>ולפי ערך ההכשר הזה שהעולם מתכשר לצפונותיה של חכמת היצירה המעשית הולכים לעומתו הרעיונות של חכמת היצירה הרחנית ומתגבלים עם החיים והמציאות... הרוחניות הולכת היא ומתעלה באדם ובעולם...</u></p>
<p>Modern society with its improvements, its progress in liberating the intellect and emotions, its heroic spirit and physical might with all its grace and beauty, all coalesce into the [international contemporary] desire for ‘eternal perfection [utopia],’ which only through that will the world rest in this revolutionary and tumultuous time. [But] it is only through spiritual, moral values that are derived from spiritual life that the world and its inhabitants - all the oppressed souls, and those who dwell in darkness with [spiritually and morally] ill bodies - finally achieve rest and eternal peace.</p>	<p>החיים החברותיים עם כל מילויי תקוניהם החופש השכלי וההרגשי עם כל הרחבתם, אומץ הרוח וגבורת הבשר עם כל חסנם ויפים, כל אלה יחדיו יחוברו למשאלות הנצח שרק הן בהפתרן תעמודנה לעולם בשעת דחקו. רק דעות עליונות, שהן נובעות ממקור עליון של חיים עליונים, ישיבו להעולם וכל אשר בו, לכל הנשמות העשוקות הערטילאות, ולכל שוכני מאפליות בגויות חולות, הרוסות ומזוהמות, את עז גבורת חייהם, את ברק יפעת נצחם. ושלוש העולמים</p>

## 22. Ramban Exodus 13:6

ומן הנסים הגדולים המפורסמים אדם מודה בנסים הנסתרים שהם יסוד התורה כלה, שאין לאדם חלק בתורת משה רבינו עד שנאמין בכל דברינו ומקרינו שכלם נסים אין בהם טבע ומנהגו של עולם, בין ברבים בין ביחיד

And from the open miracles a person will acknowledge the hidden miracles which serve as the foundation for the entire Torah since a person has no portion in the Torah of Moshe until they believe that all of the events and occurrences – both for communities and individuals - are all miracles and not the product of nature or ‘the way of the world’

## 23. “Industry and Jewish Tradition” (R’ Norman Solomon) *European Judasim: A Journal for New Europe* Vol. 18 No. 1 pp23-28 (1985)

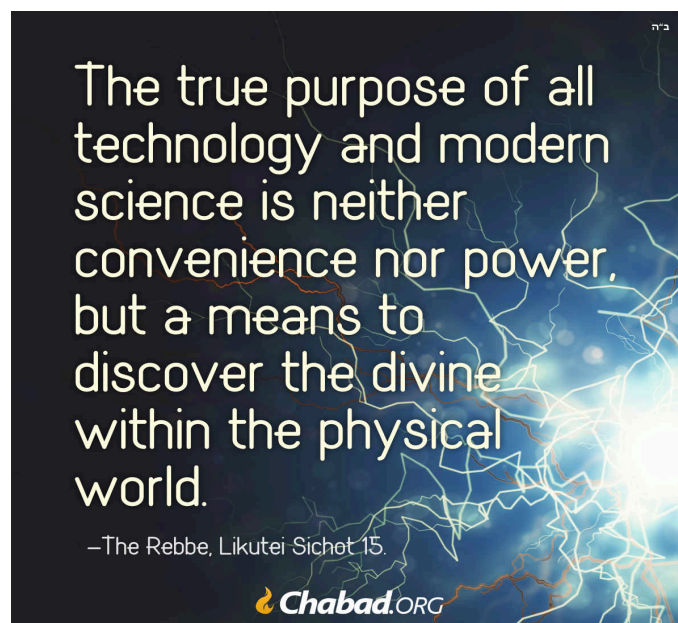
It is often said that ours is the first generation that knows it might also be the last. **I would like to stress that ours is also the first generation that has the knowledge and skills to guarantee food and a fair standard of living for**



**all. Ours is the first generation that knows how to control its population without war, want or famine. Ours is the first generation to effect cures of many of our worst diseases and to entertain realistic hopes for the global elimination of ill-health...**

**This is progress. It is the direct outcome of the Industrial Revolution and subsequent technological development, exploited for the benefit of mankind by skillful entrepreneurs. If we fail to appreciate and nurture the technological and managerial skills we have acquired, we will lose them. They cannot be taken for granted.** We will find ourselves in a world incapable of supporting its population, striving futilely for bare necessities, and ultimately reduced to barbarism. Peace itself, and the future of mankind, hang upon the success of the industrial enterprise.

Is this too bold a claim?



# **ANGELS & DEMONS**

**DAN BROWN**

**POCKET BOOKS**  
New York London Toronto Sydney Singapore

## 94

Sitting in the Sistine Chapel among his stunned colleagues, Cardinal Mortati tried to comprehend the words he was hearing. Before him, lit only by the candlelight, the camerlegno had just told a tale of such hatred and treachery that Mortati found himself trembling. The camerlegno spoke of kidnapped cardinals, branded cardinals, murdered cardinals. He spoke of the ancient Illuminati—a name that dredged up forgotten fears—and of their resurgence and vow of revenge against the church. With pain in his voice, the camerlegno spoke of his late Pope.....the victim of an Illuminati poisoning. And finally, his words almost a whisper, he spoke of a deadly new technology, antimatter, which in less than two hours threatened to destroy all of Vatican City.

When he was through, it was as if Satan himself had sucked the air from the room. Nobody could move. The camerlegno's words hung in the darkness. The only sound Mortati could now hear was the anomalous hum of a television camera in back—an electronic presence no conclave in history had ever endured—but a presence demanded by the camerlegno.

To the utter astonishment of the cardinals, the camerlegno had entered the Sistine Chapel with two BBC reporters—a man and a woman—and announced that they would be transmitting his solemn statement, live to the world.

Now, speaking directly to the camera, the camerlegno stepped forward. "To the Illuminati," he said, his voice deepening, "and to those of science, let me say this." He paused. "You have won the war."

The silence spread now to the deepest corners of the chapel. Mortati could hear the desperate thumping of his own heart.

"The wheels have been in motion for a long time," the camerlegno said. "Your victory has been inevitable. Never before has it been as obvious as it is at this moment. Science is the new God."

What is he saying! Mortati thought. Has he gone mad? The entire world is hearing this!

"Medicine, electronic communications, space travel, genetic manipulation. .... these are the miracles about which we now tell our children. These are the miracles we herald as proof that science will bring us the answers. The ancient stories of immaculate conceptions, burning bushes, and parting seas are no longer relevant. God has become obsolete. Science has won the battle. We concede."

A rustle of confusion and bewilderment swept through the chapel.

"But science's victory," the camerlegno added, his voice intensifying, "has cost every one of us. And it has cost us deeply."

Silence.

"Science may have alleviated the miseries of disease and drudgery and provided an array of gadgetry for our entertainment and convenience, but it has left us in a world without wonder. Our sunsets have been reduced to wavelengths and frequencies. The complexities of the universe have been shredded into mathematical equations. Even our self-worth as human beings has been destroyed. Science proclaims that Planet Earth and its inhabitants are a meaningless speck in the grand scheme. A cosmic accident." He paused. "Even the technology that promises to unite us, divides us. Each of us is now electronically connected to the globe, and yet we feel utterly alone. We are bombarded with violence, division, fracture, and betrayal. Skepticism has become a virtue. Cynicism and demand for proof has become enlightened thought. Is it any wonder that humans now feel more depressed and defeated than they have at any point in human history? Does science hold anything sacred? Science looks for answers by probing our unborn fetuses. Science even presumes to rearrange our own DNA. It shatters God's world into smaller and smaller pieces in quest of meaning. .... and all it finds is more questions."

Mortati watched in awe. The camerlegno was almost hypnotic now. He had a physical strength in his movements and voice that Mortati had never witnessed on a Vatican altar. The man's voice was wrought with conviction and sadness.

"The ancient war between science and religion is over," the camerlegno said. "You have won. But you have not won fairly. You have not won by providing answers. You have won by so radically reorienting our society that the truths we once saw as signposts now seem inapplicable. Religion cannot keep up."

Scientific growth is exponential. It feeds on itself like a virus. Every new breakthrough opens doors for new breakthroughs. Mankind took thousands of years to progress from the wheel to the car. Yet only decades from the car into space. Now we measure scientific progress in weeks. We are spinning out of control. The rift between us grows deeper and deeper, and as religion is left behind, people find themselves in a spiritual void. We cry out for meaning. And believe me, we do cry out. We see UFOs, engage in channeling, spirit contact, out-of-body experiences, mindquests—all these eccentric ideas have a scientific veneer, but they are unashamedly irrational. They are the desperate cry of the modern soul, lonely and tormented, crippled by its own enlightenment and its inability to accept meaning in anything removed from technology."

Mortati could feel himself leaning forward in his seat. He and the other cardinals and people around the world were hanging on this priest's every utterance. The camerlegno spoke with no rhetoric or vitriol. No references to scripture or Jesus Christ. He spoke in modern terms, unadorned and pure. Somehow, as though the words were flowing from God himself, he spoke the modern language... delivering the ancient message. In that moment, Mortati saw one of the reasons the late Pope held this young man so dear. In a world of apathy, cynicism, and technological deification, men like the camerlegno, realists who could speak to our souls like this man just had, were the church's only hope. The camerlegno was talking more forcefully now. "Science, you say, will save us. Science, I say, has destroyed us. Since the days of Galileo, the church has tried to slow the relentless march of science, sometimes with misguided means, but always with benevolent intention. Even so, the temptations are too great for man to resist. I warn you, look around yourselves. The promises of science have not been kept. Promises of efficiency and simplicity have bred nothing but pollution and chaos. We are a fractured and frantic species... moving down a path of destruction."

The camerlegno paused a long moment and then sharpened his eyes on the camera. "Who is this God science? Who is the God who offers his people power but no moral framework to tell you how to use that power? What kind of God gives a child fire but does not warn the child of its dangers? The language of science comes with no signposts about good and bad. Science textbooks tell us how to create a nuclear reaction, and yet they contain no chapter asking us if it is a good or a bad idea.

"To science, I say this. The church is tired. We are exhausted from trying to be your signposts. Our resources are drying up from our campaign to be the voice of balance as you plow blindly on in your quest for smaller chips and larger profits. We ask not why you will not govern yourselves, but how can you? Your world moves so fast that if you stop even for an instant to consider the implications of your actions, someone more efficient will whip past you in a blur. So you move on. You proliferate weapons of mass destruction, but it is the Pope who travels the world beseeching leaders to use restraint. You clone living creatures, but it is the church reminding us to consider the moral implications of our actions. You encourage people to interact on phones, video screens, and computers, but it is the church who opens its doors and reminds us to commune in person as we were meant to do. You even murder unborn babies in the name of research that will save lives. Again, it is the church who points out the fallacy of this reasoning.

"And all the while, you proclaim the church is ignorant. But who is more ignorant? The man who cannot define lightning, or the man who does not respect its awesome power? This church is reaching out to you. Reaching out to everyone. And yet the more we reach, the more you push us away. Show me proof there is a God, you say. I say use your telescopes to look to the heavens, and tell me how there could not be a God!" The camerlegno had tears in his eyes now. "You ask what does God look like. I say, where did that question come from? The answers are one and the same. Do you not see God in your science? How can you miss Him! You proclaim that even the slightest change in the force of gravity or the weight of an atom would have rendered our universe a lifeless mist rather than our magnificent sea of heavenly bodies, and yet you fail to see God's hand in this? Is it really so much easier to believe that we simply chose the right card from a deck of billions? Have we become so spiritually bankrupt that we would rather believe in mathematical impossibility than in a power greater than us?"

"Whether or not you believe in God," the camerlegno said, his voice deepening with deliberation, "you must believe this. When we as a species abandon our trust in the power greater than us, we abandon our sense of accountability. Faith... all faiths... are admonitions that there is something we cannot



understand, something to which we are accountable... With faith we are accountable to each other, to ourselves, and to a higher truth. Religion is flawed, but only because man is flawed. If the outside world could see this church as I do... looking beyond the ritual of these walls... they would see a modern miracle... a brotherhood of imperfect, simple souls wanting only to be a voice of compassion in a world spinning out of control."

The camerlegno motioned out over the College of Cardinals, and the BBC camerawoman instinctively followed, panning the crowd.

"Are we obsolete?" the camerlegno asked. "Are these men dinosaurs? Am I? Does the world really need a voice for the poor, the weak, the oppressed, the unborn child? Do we really need souls like these who, though imperfect, spend their lives imploring each of us to read the signposts of morality and not lose our way?"

Mortati now realized that the camerlegno, whether consciously or not, was making a brilliant move. By showing the cardinals, he was personalizing the church. Vatican City was no longer a building, it was people-people like the camerlegno who had spent their lives in the service of goodness.

"Tonight we are perched on a precipice," the camerlegno said. "None of us can afford to be apathetic. Whether you see this evil as Satan, corruption, or immorality... the dark force is alive and growing every day. Do not ignore it." The camerlegno lowered his voice to a whisper, and the camera moved in. "The force, though mighty, is not invincible. Goodness can prevail. Listen to your hearts. Listen to God. Together we can step back from this abyss."

Now Mortati understood. This was the reason. Conclave had been violated, but this was the only way. It was a dramatic and desperate plea for help. The camerlegno was speaking to both his enemy and his friends now. He was entreating anyone, friend or foe, to see the light and stop this madness. Certainly someone listening would realize the insanity of this plot and come forward.

The camerlegno knelt at the altar. "Pray with me."

The College of Cardinals dropped to their knees to join him in prayer. Outside in St. Peter's Square and around the globe... a stunned world knelt with them.