

Astronomers Discover New Galaxy Clusters Hiding in Plain Sight – A Spiritual Insight

By MATSATI - April 3, 2021



Recently scientists have discovered new galaxy clusters that have been previously overlooked. The research paper [1] reports that 1% of galaxy clusters look atypical and may be actually misidentified. Why astronomers are studying this particular phenomena is to obtain the most complete picture of the universe that we live in. Galaxy clusters typically have the following properties, they contain between 100 and 1000 galaxies, they emit hot x-ray emitting gases known as the inter-cluster medium, and it is assumed to have a large amount of dark matter. The distribution of these three properties are homogeneous throughout the cluster. Galaxy clusters also have total masses of 10^{14} to 10^{15} solar masses. A galaxy cluster has a typical diameter of between 1 and 5 Megaparsecs. (1 Megaparsec = $3.0857E+19$ kilometer = $1.9174E+19$ miles). Galaxy clusters are the largest known gravitationally bound structures in the universe. Notable galaxy clusters in the relatively nearby Universe include the Virgo Cluster, Fornax Cluster, Hercules Cluster, and the Coma Cluster. A very large aggregation of galaxies known as the Great Attractor, dominated by the Norma Cluster, is massive enough to affect the local expansion of the Universe, therefore, scientists study galaxy clusters to understand the expansion of the universe.

References

1. *Taweewat Somboonpanyakul et al. **The Clusters Hiding in Plain Sight (CHIPS) Survey: Complete Sample of Extreme BCG Clusters**, *The Astrophysical Journal* (2021). DOI: [10.3847/1538-4357/abe1bc](https://doi.org/10.3847/1538-4357/abe1bc)*

In the study of galaxy clusters, the inter-cluster medium creates a fuzzy halo of x-rays around a typical cluster. Occasionally however, there are some clusters that do not exhibit this phenomenon. Some of the galaxy clusters shine bright as a point source as opposed to

a fuzzy halow of x-rays. The x-rays being emitted from this type of cluster were so intense, they drowned out the fuzzy halo type of x-rays from the inter-cluster medium. It is postulated that at the core of these clusters, star formation is at a rate approximately 500 times higher than the normal galaxy cluster. This leads to the cluster giving off a blue glow suggesting a younger star population instead of the typical red hue of aging stars. Associate Professor Michael McDonald, one of the lead researchers on the project, stated, *"We'd been looking for a system like this for decades," and yet, it had been observed and passed over years prior, assumed to be a single galaxy instead of a cluster. 'This has been in the archive for decades and no one saw it. They were looking past it because it didn't look quite right.'"* This research was conducted by surveying decades of x-ray observational data and selecting candidate clusters. The researchers used existing ground-based observatory data, and also visited the Magellan telescopes in Chile to take new images in order to see if neighboring galaxies would reveal the presence of the galaxy cluster. The candidates that had the highest likelihood of being a galaxy cluster were examined closer using the space-based Chandra X-Ray Observatory and Hubble Space Telescope. The conclusion of this research revealed that the older x-ray data missed roughly 1% of the galactic neighborhoods which is a significant finding. This is significant as 1% is a massive number simply due to the size of the universe, and because scientists study these galaxy clusters to understand the expansion of the universe. The current question is whether these galaxy clusters are simply atypical in their behavior, or if perhaps this is a phase that all clusters undergo for a short period of time. eROSITA is an X-ray instrument built by the Max Planck Institute for Extraterrestrial Physics (MPE) in Germany. It is part of the Russian-German Spektr-RG space observatory, which also carries the Russian telescope ART-XC. It was launched by Roscosmos on 13 July 2019 from Baikonur, and deployed in a 6-month halo orbit around the second Lagrange point (L2). It began collecting data in October 2019. The Sun-Earth Second Lagrangian point, or L2, is one of five places an orbiting spacecraft can remain stable relative to the Sun and Earth gravitational pull. This satellite will be used to increase our catalog of data of galaxy clusters into the order of tens of thousands of clusters. Associate Professor Michael McDonald said with this new space based observatory researchers need to take into consideration their recent findings or else they will miss a significant portion of the galaxy clusters that exist in the universe placing a fundamental limit on how well we understand the universe.

The Spiritual Insights that we receive from this type of research is related to this idea of something being hidden in plain sight! The hidden things of God are hidden in plain sight, the reason being, those who set their eyes to search these things out and have an ear to hear God's instruction, will find those things God has hidden. Let's explore this a little further from the Torah. We learn at the end of Bereshit / Genesis and opening chapters of Shemot / Exodus how Israel went to Egypt due to a famine, grew in numbers, and then the people were enslaved by the Egyptians. We read how God entered into the lives of His people and delivered them powerfully from the Egyptians, even destroying the entire egyptian army by a fantastic miracle, and bringing everyone to the Mountain of Sinai. Now, from the perspective of the people they were brought up from the magnificent Egyptian cities, pyramids, and sphinx, enormous temples, and far reaching kingdom of Egypt into a desert wilderness of want and need. These things reveal to us how what we see depends upon how we look at things. Using this example from the Torah, Israel was brought from these majestic things to a humble wilderness experience, and the Mishkhan (Tabernacle) must have seemed unimpressive in comparison to the Egyptians' massive structures. This

holy place was made from simple animal skins, and the holy place measured only 20 x 20 cubits inside of the tent structure. The ark of the covenant was small, and there was the Shulchan (table), the menorah, the golden altar of incense, and the parochet (curtain) divided the holy place from the most holy place where the ark of the covenant was located. It was in the darkness of the kedosh kedoshim (holy of holies) that the glory of God was manifest. The High priest would sprinkle the blood over the kaporet (cover of the Ark) in the darkness of the holy of holies. Within the Ark was a copy of the commandments on the two stone tablets. From the people's perspective, these things may have paled in comparison to the great structures of the Egyptians. We note how within the Mishkhan, the glory of God is manifest, yet it is hidden in the midst of the darkness of the holy of holies. This parallels this idea of the hidden things of God being hidden in plain sight.

We note how the Messiah was also hidden in his humility. Take the example of his birth according to [Luke 2:1-7](#).

ספר לוקס פרק ב

בַּיָּמִים הָהֵם יָצָא צוּ מֵאֵת הַקֵּיסָר אוֹגוּסְטוּס לַעֲרֹךְ רִשׁוּם תּוֹשְׁבִים בְּכָל הָאֲרָצוֹת. 1
 2 הַמִּפְקֵד הַזֶּה, הָרֵאשׁוֹן, נֶעְרַךְ בְּהִיּוֹת קִירִינְיוֹס נָצִיב סוּרְיָה. 3 הַכֹּל הִלְכוּ לְהִתְפַּקֵּד,
 אִישׁ אִישׁ לְעִירוֹ. 4 וְגַם יוֹסֵף, שֶׁהָיָה מִבֵּית דָּוִד וּמִמִּשְׁפַּחְתּוֹ, עָלָה מִן הַגָּלִיל אֶל
 יְהוּדָה, מִהַעִיר נָצְרַת לְעִיר דָּוִד הַנִּקְרָאת בֵּית לְחֵם, 5 לְהִתְפַּקֵּד עִם מְרִיָּם אֲרוּסָתוֹ
 וְהִיא הָרָה. 6 כְּאֲשֶׁר הָיוּ שָׁם מֵלֹאזִימָה לְלִדְתָּ 7 וְהִיא יָלְדָה אֶת בְּנֵה הַבְּכוֹר. לְאַחַר
 שֶׁחִתְּלָה אוֹתוֹ הִשְׁכִּיבָה אוֹתוֹ בְּאֵבוּס, כִּי לֹא הָיָה לָהֶם מְקוֹם בַּמְּלוּן.

LUKE 2:1-7

2:1 NOW IN THOSE DAYS A DECREE WENT OUT FROM CAESAR AUGUSTUS, THAT A CENSUS BE TAKEN OF ALL THE INHABITED EARTH. 2:2 THIS WAS THE FIRST CENSUS TAKEN WHILE QUIRINIUS WAS GOVERNOR OF SYRIA. 2:3 AND EVERYONE WAS ON HIS WAY TO REGISTER FOR THE CENSUS, EACH TO HIS OWN CITY. 2:4 JOSEPH ALSO WENT UP FROM GALILEE, FROM THE CITY OF NAZARETH, TO JUDEA, TO THE CITY OF DAVID WHICH IS CALLED BETHLEHEM, BECAUSE HE WAS OF THE HOUSE AND FAMILY OF DAVID, 2:5 IN ORDER TO REGISTER ALONG WITH MARY, WHO WAS ENGAGED TO HIM, AND WAS WITH CHILD. 2:6 WHILE THEY WERE THERE, THE DAYS WERE COMPLETED FOR HER TO GIVE BIRTH. 2:7 AND SHE GAVE BIRTH TO HER FIRSTBORN SON; AND SHE WRAPPED HIM IN CLOTHS, AND LAID HIM IN A MANGER, BECAUSE THERE WAS NO ROOM FOR THEM IN THE INN. (NASB)

Here we see Yeshua's parents were going to their hometown for a census (Bethlehem), and the child Yeshua was born and placed in an ebus (אָבוּס, feeding trough). This was specifically how the shepherds were to locate and identify the one the angels spoke about. This indicates to us how he was born in obscurity and in poverty. We note how the

priesthood of Yeshua was also hidden as we read about the temporary provision of the priesthood and Mishkhan according to [Hebrews 7:11](#) and [13:10](#).

HEBREWS 7:11

7:11 NOW IF PERFECTION WAS THROUGH THE LEVITICAL PRIESTHOOD (FOR ON THE BASIS OF IT THE PEOPLE RECEIVED THE LAW), WHAT FURTHER NEED WAS THERE FOR ANOTHER PRIEST TO ARISE ACCORDING TO THE ORDER OF MELCHIZEDEK, AND NOT BE DESIGNATED ACCORDING TO THE ORDER OF AARON? (NASB)

HEBREWS 13:10

13:10 WE HAVE AN ALTAR FROM WHICH THOSE WHO SERVE THE TABERNACLE HAVE NO RIGHT TO EAT. 13:11 FOR THE BODIES OF THOSE ANIMALS WHOSE BLOOD IS BROUGHT INTO THE HOLY PLACE BY THE HIGH PRIEST AS AN OFFERING FOR SIN, ARE BURNED OUTSIDE THE CAMP. 13:12 THEREFORE JESUS ALSO, THAT HE MIGHT SANCTIFY THE PEOPLE THROUGH HIS OWN BLOOD, SUFFERED OUTSIDE THE GATE. (NASB)

Based upon these scriptures, just as the Mishkhan disguised the Divine Presence of God from the eyes of the people, so too Yeshua's high priesthood was hidden. Remember that these truths need to be sought out in order to discover them. There are some that would claim that this line of reasoning in the book of Hebrews as Yeshua being after the order of Melchizedek is invalid. This claim by the author of the book of Hebrews however is actually a rabbinic one, and one must search the rabbinic literature in order to find it! In fact, the rabbis also use this same line of reasoning according to [Pirkei DeRabbi Eliezer 8:4](#).

PIRKEI DERABBI ELIEZER 8:4

נח מסר לשם ונכנס בסוד העיבור ועיבר את השנה ונקרא כהן וכי שם בן נח כהן היה אלא ע"י שהיה בכור והיה משרת ביום ובלילה לפיכך נקרא כהן, שנאמר (בראשית יד, יח): "ומלכי צדק מלך שלם" וגו'. ושם מסר לאברהם ונכנס בסוד העיבור ועיבר השנה ונקרא כהן, שנאמר (תהלים קי, ד): "נשבע יהוה ולא ינחם אתה כהן לעולם". ומנין שמסר שם לאברהם, שנאמר (תהלים קי, ד): "על דברתי מלכי צדק". אברהם מסר ליצחק ונכנס בסוד העיבור ועיבר את השנה לאחר מותו של אברהם, שנאמר (בראשית כה, יא): "ויהי אחרי מות אברהם ויברך אלהים את יצחק בנו" שנכנס בסוד העיבור יצחק מסר ליעקב ונכנס בסוד העיבור ועיבר את השנה יצא יעקב לחוצה לארץ ובקש לעבר את השנה בחוצה לארץ אמר לו הקב"ה: יעקב אין לך רשות לעבר את השנה בחוצה לארץ, הרי יצחק אביך הוא יעבר את השנה בארץ, שנאמר (בראשית לה, ט): "ויבא אלהים אל יעקב עוד בבואו מפדן ארם ויברך אתו", ולמה עוד שפעם ראשונה נגלה עליו ומנעו מלעבר את השנה בחוצה לארץ וכשבא לארץ א"ל הקב"ה ה קום עבר את השנה, שנאמר

וירא אלהים אל יעקב וגו' ויברך אותו על שנכנס בסוד העיבור וברכו ברכת עולם. מכאן אמרו אפילו צדיקים וחכמים בח"ל רועה צאן ובקר בארץ אין מעברין את השנה אלא ע"י רועה צאן ובקר אפי' נביאים בח"ל והדיוטים בא"י אין מעברין את השנה אלא ע"י הדיוטים שבארץ. גלו לבבל היו מעברין את השנה ע"י הנשאר בארץ. לא נשאר אחד בארץ היו מעברין את השנה בבבל. עלה עזרא וכל הקהלה עמו ורצה יחזקאל לעבר את השנה בבבל, אמר לו הקב"ה: יחזקאל אין לך רשות לעבר את השנה בח"ל הרי ישראל אחיהם והם יעברו את השנה, שנאמר (יחזקאל לו, יז): "בן אדם בית ישראל יושבין על אדמתם", שלהן היא לעבר את השנה.

NOAH HANDED ON THE TRADITION TO SHEM, AND HE WAS INITIATED IN THE PRINCIPLE OF INTERCALATION; HE INTERCALATED THE YEARS AND HE WAS CALLED A PRIEST, AS IT IS SAID, "AND MELCHIZEDEK KING OF SALEM... WAS A PRIEST OF GOD MOST HIGH" (GEN. 14:18). WAS SHEM THE SON OF NOAH A PRIEST? BUT BECAUSE HE WAS THE FIRST-BORN, AND BECAUSE HE MINISTERED TO HIS GOD BY DAY AND BY NIGHT, THEREFORE HE WAS CALLED A PRIEST. SHEM DELIVERED THE TRADITION TO ABRAHAM; HE WAS INITIATED IN THE PRINCIPLE OF INTERCALATION AND HE INTERCALATED THE YEAR, AND HE (ALSO) WAS CALLED PRIEST AS IT IS SAID, "THE LORD HATH SWORN, AND WILL NOT REPENT, THOU ART A PRIEST FOR EVER AFTER THE ORDER OF MELCHIZEDEK" (PS. 110:4). WHENCE DO WE KNOW THAT SHEM DELIVERED THE TRADITION TO ABRAHAM? BECAUSE IT IS SAID, "AFTER THE ORDER OF MELCHIZEDEK" (IBID.). ABRAHAM DELIVERED THE TRADITION TO ISAAC, AND HE WAS INITIATED IN THE PRINCIPLE OF INTERCALATION, AND HE INTERCALATED THE YEAR AFTER THE DEATH OF OUR FATHER ABRAHAM, AS IT IS SAID, "AND IT CAME TO PASS AFTER THE DEATH OF ABRAHAM, THAT GOD BLESSED ISAAC HIS SON" (GEN. 25:11), BECAUSE HE HAD BEEN INITIATED IN THE PRINCIPLE OF INTERCALATION AND HAD INTERCALATED THE YEAR (THEREFORE) HE BLESSED HIM WITH THE BLESSING OF ETERNITY. ISAAC GAVE TO JACOB ALL THE BLESSINGS AND DELIVERED TO HIM THE PRINCIPLE OF INTERCALATION. WHEN JACOB WENT OUT OF THE (HOLY) LAND, HE ATTEMPTED TO INTERCALATE THE YEAR OUTSIDE THE (HOLY) LAND. THE HOLY ONE, BLESSED BE HE, SAID TO HIM: JACOB! THOU HAST NO AUTHORITY TO INTERCALATE THE YEAR OUTSIDE THE LAND (OF ISRAEL); BEHOLD, ISAAC THY FATHER IS IN THE (HOLY) LAND, HE

WILL INTERCALATE THE YEAR, AS IT IS SAID, "AND GOD APPEARED UNTO JACOB AGAIN, || WHEN HE CAME FROM PADDAN-ARAM, AND BLESSED HIM" (GEN. 35:9). WHY "AGAIN"? BECAUSE THE FIRST TIME HE WAS REVEALED TO HIM, HE PREVENTED HIM FROM INTERCALATING THE YEAR OUTSIDE THE (HOLY) LAND; BUT WHEN HE CAME TO THE (HOLY) LAND THE HOLY ONE, BLESSED BE HE, SAID TO HIM: JACOB ! ARISE, INTERCALATE THE YEAR, AS IT IS SAID, "AND GOD APPEARED UNTO JACOB AGAIN,... AND BLESSED HIM" (IBID.), BECAUSE HE WAS INITIATED IN THE PRINCIPLE OF THE INTERCALATION, AND HE BLESSED HIM (WITH) THE BLESSING OF THE WORLD. THUS WERE THE ISRAELITES WONT TO INTERCALATE THE YEAR IN THE (HOLY) LAND. WHEN THEY WERE EXILED TO BABYLON || THEY INTERCALATED THE YEAR THROUGH THOSE WHO WERE LEFT IN THE (HOLY) LAND. WHEN THEY WERE ALL EXILED AND THERE WERE NOT ANY (JEWS) LEFT IN THE (HOLY) LAND, THEY INTERCALATED THE YEAR IN BABYLON. (WHEN) EZRA AND ALL THE COMMUNITY WITH HIM WENT (TO PALESTINE), EZEKIEL WISHED TO INTERCALATE THE YEAR IN BABYLON; (THEN) THE HOLY ONE, BLESSED BE HE, SAID TO HIM: EZEKIEL ! THOU HAST NO AUTHORITY TO INTERCALATE THE YEAR OUTSIDE THE LAND; BEHOLD ISRAEL THY BRETHREN, THEY WILL INTERCALATE THE YEAR, AS IT IS SAID, "SON OF MAN, WHEN THE HOUSE OF ISRAEL DWELL IN THEIR OWN LAND" (EZEK. 36:17). HENCE (THE SAGES) HAVE SAID, EVEN WHEN THE RIGHTEOUS AND THE WISE ARE OUTSIDE THE LAND, AND THE KEEPER OF SHEEP AND HERDS ARE IN THE LAND, THEY DO NOT INTERCALATE THE YEAR EXCEPT THROUGH THE KEEPER OF SHEEP AND HERDS IN THE LAND. EVEN WHEN PROPHETS ARE OUTSIDE THE LAND AND THE IGNORANT ARE IN THE LAND THEY DO NOT INTERCALATE THE YEAR EXCEPT THROUGH THE IGNORANT WHO ARE IN THE LAND (OF ISRAEL), AS IT IS SAID, "SON OF MAN, WHEN THE HOUSE OF ISRAEL DWELL IN THEIR OWN LAND"(IBID.) IT IS THEIR DUTY TO INTERCALATE THE YEAR.

The significance of what we have just read is not just a support text for what is written in the book of Hebrews, but also reveals to us how the hidden things of God are hidden in plain sight for those who set their eyes to search it out and have an ear to hear God's instruction. The things of the Spirit are only revealed through the Spirit, for God's word is spiritually discerned (1 Corinthians 2:14). The first requirement is to have an ear to hear, we discussed this specifically in this article (What animal has the largest ears? – A Spiritual Insight – MATSATI.COM Teaching Ministry) and this video (Watch Dr. Duane D. Miller

[Discuss What Animal has the Largest Ears? – A Spiritual Insight – MATSATI.COM Teaching Ministry](#)). We note how Pirkei DeRabbi Eleazar speaks about the passing on of the priesthood through this principle of intercalation and Melchizedek king of Salem priest of God Most High. We also note how the priesthood was passed down to men who were not levites, i.e. Shem, Abraham, Isaac, Jacob, etc. This idea of intercalation from a scientific perspective is paralleled to the concept of inserting something between layers of a crystal lattice, or a geological formation, or other structure as this insertion of an element becomes a part of something new affecting the shape, phase, and properties of the old material. What we find here is a discussion on how Noah handed down the tradition of the priesthood to Shem, and then Shem to Abraham, and so forth. When the commentary reaches Jacob, the text states that he cannot intercalate the priesthood outside of the Land of Israel. Notice how the commentary continues explaining the intercalation of the priesthood is only accomplished in the Land, and when the people were in exile the intercalation occurred through those who remained in the Land of Israel. This is very interesting again as those who were being intercalated were not necessarily from the tribe of Levi. It is within this same vein of thought the author of the book of Hebrews speaks of Yeshua having been intercalated according to the order of Melchizedek according to Hebrews 7:11. What is being proposed in the book of Hebrews is not outside of the mind of the rabbis, and with the destruction of the Temple in Jerusalem, this vein of thought is all the more justified as Yeshua being the high priest based upon the validity of the intercalation of Yeshua via the priesthood of Melchizedek.

We note again how these things are hidden from plain sight and require searching out in order to find them! We have to understand when the NT was written, and having a background in first century Judaism, there was no need to write the details of the rabbinic understanding outside of the major conclusions to the hebraic thought processes. This is how we find many such hidden things within the Scriptures God had revealed in plain sight for us to search out! Hebrews 13:10 speaks of the animals being burned up outside of the camp, and in parallel fashion Yeshua was crucified outside of the city of Jerusalem. In this sense, Yeshua, who is the embodiment of the glory of God (Hebrews 1), came to bear our sins by which his blood was shed once and for all for the forgiveness of sins and to secure an everlasting covenant and atonement on our behalf. Paul wrote the cross of the Messiah appears as foolishness to the proud of this world, but to those who are saved it is the power of God! (1 Corinthians 1:18) These are the things that are drawn out when we lay the scientific research on galaxy clusters down alongside the Scriptures. There are many great treasures in the pages of the Scriptures, many hiding things of God which are hidden in plain sight such as these discussed in the article. We have to however take the time to search them out, and to have an ear to listen to the Spirit of God in order to spiritually discern the truth. This is the power of God in our lives, to help us by His Spirit which dwells within us. We note how significant these things actually are as knowing these truths about who Yeshua is and how he sanctifies us in his Blood (Hebrews 13:12), enables us to have faith in what He has done. Believing in Yeshua God gives us His Spirit to help us to have understanding, and to help us to sanctify our lives in this world because God has first sanctified us in the heavenly regions due to the life and work of His son Yeshua. These truths teach us who we are, a people called out from the nations, to live holy and righteous lives before God and men according to God's Word. These things are all hidden in plain sight to those who are lost, but to those who are saved, it is the power of God! (1 Corinthians 1:18)



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Dr. Duane D. Miller received his Ph.D., M.S., and B.S. Degree in Chemical Engineering from The University of Akron Ohio. He is currently a Chemical Engineering Researcher. Duane's research expertise has focused upon functional materials development for the control, conversion, and release of process gases in Energy production technologies. His R&D interests include computational chemistry, developing novel technologies for converting biomass to fuels and studying their fundamental interactions during the chemical conversion process. His past experience includes sorbent development for pre- and post-combustion CO2 and SO2 capture, selective absorption of H2S from methane streams, O2 capture for oxy-fuel combustion, photocatalytic reduction of alcohols, NOx reduction catalysis, the development of oxygen carriers to combust fossil fuels (CH4 and coal) for the chemical looping combustion processes, and the extraction of rare earth elements using patent pending sorbents. His research expertise has focused on operando-characterization using Infrared, Raman, and UV-Vis spectroscopy to observe the nature of the catalytic active sites and reaction intermediates under realistic reaction conditions, allowing direct correlation of molecular/electronic structures with catalyst performance during Gas-Solid / Liquid-Solid Adsorption and Photocatalytic Processes with real time online analysis of reaction products using ICP-MS and mass spectrometry. His current work involves a multi-disciplinary approach to developing, understanding, and improving the catalytic gasification of coal and methane, high temperature chemical looping combustion, and the catalytic decomposition and gasification of biomass and coal using novel microwave reactor. He has been studying the Hebrew Scriptures and the Torah for 20+ years and sharing what he has learned. The studies developed for MATSATI.COM are freely to be used by everyone, to God be the Glory!

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