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Magnets in Space?

Mel West

What seems to be right to our experts does not always hold up under careful scrutiny. Scientific facts often contain glittering generalities in their foundations, enticing you to believe a great model, why things are the way they are. Rather than getting locked into dogma, it is far better to lock in on the anomalies, as it were, and from this achieve human understanding.

Inside

What we explore here is whether galaxies behave like other matter in our immediate universe. We argue that magnetic principles hold our galaxies in place, make them collide, and cause them to repel one another.

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This Collector's Edition

Mt. Wilson and Palomar Observatories

June 24, 1994

To the Menz Group,

In our discussion of June 19 I made two apparently unorthodox points which can be supported by the following information. The first point—building on the idea that in the smallest is the largest; in the largest is the smallest— concludes that the electro-magnetic forces we observe and apply each day to our own bodies, from the smallest atomic particles to huge electric power plants, serves also the heavenly bodies. The magnetic forces within our own galaxy and others has been measured, for instance, by D.S. Mathewson and V.L. Ford in 1970, when they plotted a world map in 1970 by showing a tiny dot for the least magnetic field and lines for stronger fields. The stronger the polarization measured the longer and bolder the line. What they produced on their map of our galaxy and the universe is the typical iron-filing display schoolchildren make with a paper, iron filings and a magnet. These and other polarization maps can be seen in The Invisible Universe

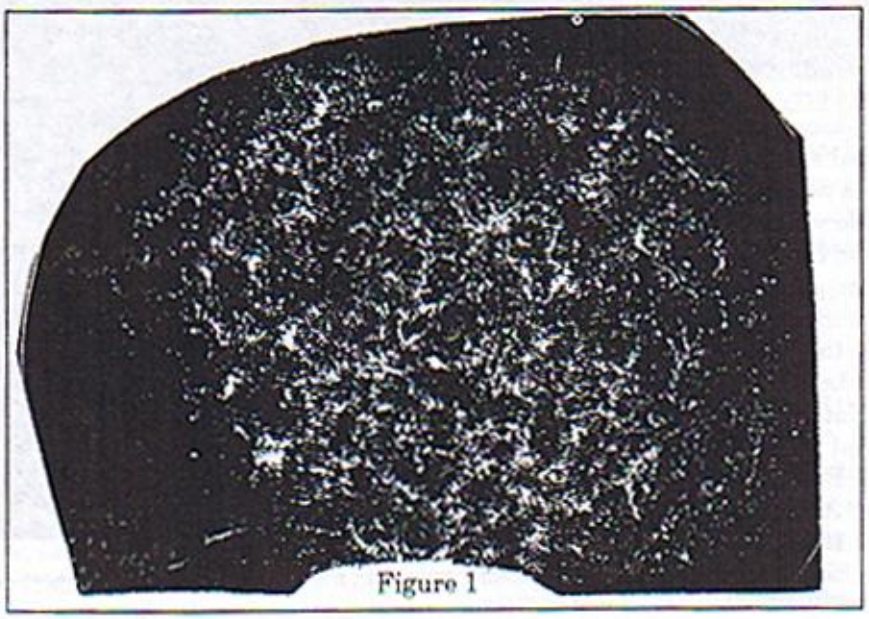


Figure 1

Revealed, Gerritt L. Verschuür, Springer Verley, Publishers, NY., NY 1987.

The world we know tends to be a binary world, and this follows the general idea that all matter which we have discovered (anti-matter yet to be demonstrated) is polarized with what we call a positive charge at the north end and a negative charge at its south end. I said that all material reflects the electro-magnetic signature of the sum of its parts, and all of a system's parts break down into either negatively biased particles or positive biased particles, from the smallest atom to the largest galactic cluster (the largest measured being less than a thousand galaxies; average 200!). Then, being somewhat unorthodox I ventured to say that gravitational effects are electro-magnetic phenomena. Living forms which grow upright or lie flat on our earth are behaving like the iron filings on a piece of paper covering a bar magnet. The stars and star filaments and nebulae which became long and short bars on Mathewson's and Ford's maps, as well as others, behave no differently than a field of magnetized iron filings on a child's desk. What was measured in the galactic sphere, as opposed to the child's observations, is that the combined strength of the galactic fields measured still did not equal the strength of the earth's magnetic field. Distance makes the heart grow weaker, applies here, I suppose.

Figure 2

With this in mind we note that our known universe, shown in the "star map" in Figure 1, measured by M. Seldner, B. L. Siebers, E. J. Groth and P.J.E. Peebles, *Astronomical Journal* 82,249, 1977 shows over one

* Used as coordinates; what is actually north we leave to whoever stands on the edge of the universe

million Galaxies. More current and three dimensional versions of this map have been produced in recent Astronomical Journals, but we have used the old map. The map was made using the Lick radio telescope. White regions are clusters and super clusters and the dark regions are voids. A filamentary structure is apparent in the distribution of the galaxies. Filaments are common occurrences in galaxies and nebulae in general, from the rope-like structures circumventing spiral galaxies, to those seen in the Dumbbell Nebulae which seem to resemble a double helix at its vortex, to the feature which can be seen in the Cone Nebula (below the Unicorn constellation), NGC 2264, chart 24 of the Anglo-Australian Telescope Board. What is apparent in this photo is a rather massive explosion, where matter is being ejected from the north and south poles*. At the southern pole of the cataclysm is a globular structure whose body is streaming away in the south-eastern filament, to that of another smaller globular structure, whose eastern side, if you look closely, is also streaming away into the body of the filament cloud. The eastern filament cloud is arranged in a helix much after the manner of a two or three strand rope. To the west of this filament is another helix, both being created in the shadow of the star.

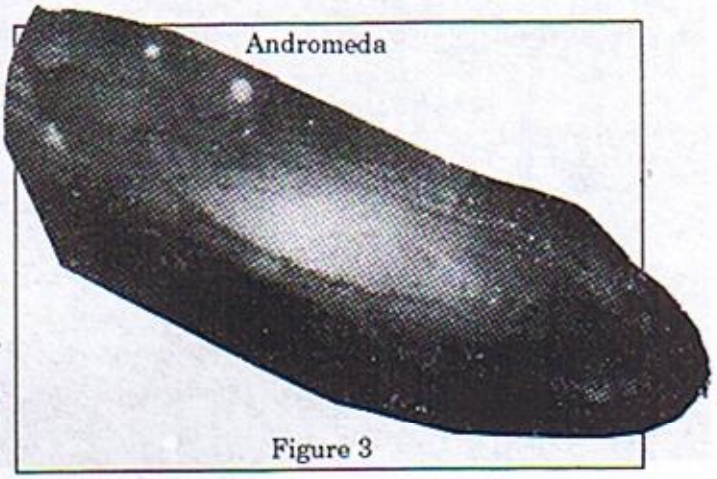


Figure 3

Red-shift problems. Big Bang? The Red Shifting Universe is not altogether as universal as Astronomers would like us to believe. Not all of the matter shown in figure 1 is moving away from us. This has been demonstrated by several Astronomers, including Halton Arp who, using the evidence of the Stephan's Quintet, argues that the "red-shift" is "due to unknown caues". In the Stephan's Quintet, Figure 4, we have a disturbing red-shift anomaly. In the northwestern sector is NGC 7319 showing a red-shift velocity of 6,700 KM/Sec. Below, in the center are two colliding galaxies, NGC 7318b with a velocity of 5,700 KM/Sec. Directly below is a globular cluster NGC 7317 with a velocity of 6,700 KM/Sec. The southwestern galaxy, NGC 7320, which has been univer-

sally acknowledtged as being apart of the *Stephan's Quintet*, loping along at a

Figure 4

mere 800 KM/Sec., about the speed of our nearest galactic neighbors. Other problems of this sort are all over the map. NGC 4319, Quasar Markarian #205, shows a red shift 12 X more distant than the Galactic Cloud in which it blends.

Colliding Galaxies. We can see similar contradictions to the Red-shift theory closer to home. For instance in our local Galactic Group is our large sister, *Andromeda*, M31, with her small group, including the two Magellanic Clouds, whose distance from us closing. In fact M31 and the Milky Way may be a common phenomena in the galactic field of millions of galaxies in figure 1. The Giant Radio Galaxy NGC 1316, Figure 5, which shows two galaxies in collision, illustrates another case where galaxies, rather than being dispersed away from a central Big Bang explosion are following different courses. In the case of NGC 1316 we can see the two galaxies merging, one swallowing the other, or, as in the case of the Whirlpool Galaxy, M51, (not shown herein) we observe one of its filament arms bridging as a tentacle to scoop in another smaller galaxy. The old proverb, *the big*

fish eats the little fish seems to apply here, and filament bridges between galaxies or nebulae are not uncommon.

Another probable collision of two galaxies can be seen in NGC 5128 (not shown herein). But NGC 1316 says it all: the cataclysmic forces of two galaxies of opposite electro-magnetic polarization, exchanging matter or, to be more exact, one is being swallowed by the other. These all demonstrate that many nebulae and in particular spiral galaxies are having head on collisions. If figure 2, the Cone Nebual, is representative of an explosion in space, with its primary plumes north and south, with finger like filaments shooting east and west, and then turning back towards the center of the explosion, following the pattern of lobes of magnetism, then we can expect the Big Bang to behave the same way. All planetary nebulae show the same effects. Particles in an explosion do not criss-cross each other's paths (except in an exploding fire-work's stand) until magnetic or gravitational forces take effect. If there was a Big Bang the colliding Galaxies and other red-shift anomalies do not support it.

Giant Radio Galaxy NGC 1316 Figure 5

When the Big Bang is described it is compared to one blowing up a balloon with a bunch of coins taped all over its surface. As the balloon expands the coins increase their distance proportionately from one another. In the Big Bang theory we have the presumption that the heavier masses, having the greatest inertia, would travel faster and be distributed in the Big Bang explosion on the outskirts of the balloon. This presumes, of course, that M31, Andromeda, which is about 81,450 l.y. (light years) in diameter—as opposed to our Milky Way of about 48,870 l.y. in diameter—are in the center of the Big Bang. So near the center of the Big Bang are two (probably typical in size/relationship) galaxies which are racing towards each other for some reason

or another. Since our sun is on the outer perimeter of the Milky Way, no doubt, as we look down over our shoulder, we should be on the receiving end of one of Andromeda's filaments. Since we are separated by about ten times the diameter of Andromeda, no doubt we should not have to worry about this cataclysm for about a billion light years or so. Andromeda is moving towards us, with its two small galactic clouds M32 (276 KM/Sec.) and NGC 205 (168 KM/Sec.) at about 120 miles per second. How much of this velocity is attributed to our sun's motion around the perimeter of the Milky Way is hard to tell. But these are not the only galaxies in our local group. Several others of the spiral type have also joined us, with NGC 6822 (530,000 l.y. from the Milky Way) accompanying M31 on the -30° latitude of our "local group"; and then on the +15° latitude there are two spirals, IC 342 and NGC 6946, situated about 900,000 l.y. from our galaxy. NGC 6946 is moving away from us at 110 KM/Sec.; IC342 is receding at 150KM/Sec. The Andromeda group, about 680,00 l.y. away, is moving towards us at velocities comparable to IC342, about 900,000 l.y. away, and these galactic movements, again contradict the red-shift theory. Here we note that about equidistantly from our galaxy are M31 (@ 680,000 l.y.) and NGC 6822 (@ 530,000 l.y.) on the one side and IC 342 and NGC 6946, about 900,000 l.y. on the other (northern) side. Among all of the spiral galaxies only M31, Andromeda, is situated at an angle and plane parallel to [below] our own. The other spiral galaxies we view at a ninety degree angle, or face on, illustrated Figure 6. This display can be visualized in the effects of light bulbs on the ceiling shining on a crystal ball. Around the surface of the crystal will be disk-like lights, which, because of the curvature, will, depending upon their position, be at right angles to one another. We see this spherical relationship of galaxies to their group, in larger Galactic clusters, such as those of the Constellations *Hercules*, *Coma Berenices* (see back plates) and our nearest Galactic Group neighbor, the *Virgo* Group. The relationships between the galaxies or our local group should be applicable to the larger groups and clusters.

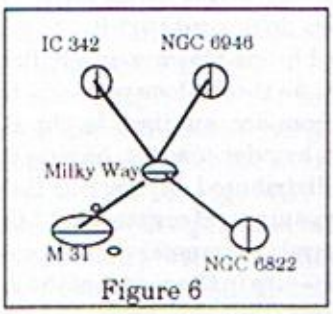


Figure 6

We know that the influence M 31 has extends beyond its visible circumference by the same distance of its diameter; applying this criteria to the Milky Way, the real gap between the Milky Way and M31 would be on the order of 549,000 l.y or about five times the mean diameter of the two galactic nebulae (M31 @ 163,000 l.y. + Milky Way at 97,740 l.y. = 260,740 / 2 = 130,370 l.y mean diameter) or 10 x the diameter of M31, the larger galaxy. NGC 6946, by comparison, is about eighteen to twenty times distant from M31 in relation to M 31's diameter.

Parallel and perpendicular relationships in magnetic currents. To demonstrate visually what Chemists, and Astro/Nuclear Physicists like to display mathematically, I mentioned the idea of hanging magnets from a ceiling, in which there was a field of magnets, weighing together about 16 oz., of various sizes and shapes hung (on fine thread) around two two inch long ceramic magnets. To demonstrate that all matter is effected by the magnetic field in which they rest, I measured the following: the one ceramic magnet aligned itself with the earth's magnetic field, capturing "satellite" magnets with it, while the other magnet captured the balance of the field and would align itself to a three foot by 10" Saran Wrap shield which I had hung in the same field. Hanging in the field were other types of objects, small pieces of cellophane to measure any air disturbances, sheet of paper, aluminum foil, a leaf, etc. Every morning I would awake to find the field perfectly at rest in relation to the Saran Wrap shield I had set the evening before. All objects were either oriented parallel to their Ceramic *controller* or facing perpendicular, 90°, to it. Most of the magnets and items in the field oriented themselves to the Ceramic Controller lined up with the Saran Wrap. Even the leaf and sheets of paper maintained the same relationships. The Saran Wrap shield and another object, a sheet of aluminum foil, responded to human presence in the field (the field being also a sort of primitive device for measuring human auras or telepathic projections). The criteria of the orientation of all objects in the field was not constrained by "polar" parameters, but the only requirement was that they either align themselves parallel to the Saran Wrap or the earth's Magnetic Field or at a 90° angle to whichever field was an item's *controller* (earth's magnetic field or the Saran Wrap). We can see this type of magnetic field at work in our own Galactic Group and in the Coma Berenices Galactic Cluster. *In 1933 American astronomer Fritz Zwick pointed out that this cluster is held together by gravity but calculated that the galaxies did not have enough mass to provide the necessary attractive force.* To account for this anomalous behavior Astronomers have

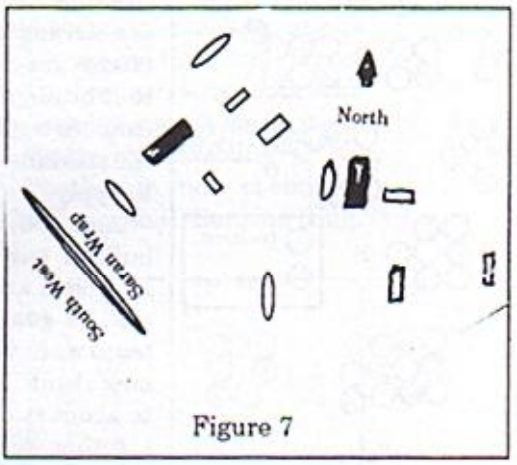


Figure 7

come up with the *missing mass* theory, that the bulk of the mass in the cluster exists not in the galaxies, but in massive dark haloes that surround them! This, and other "black hole" type of explanations do not have to be invented when we know that galaxies and planets and all other kinds of planetary nebula move in and "rest" in the magnetic field in which they are captured no differently than as if they were hanging from the center of their field on a fine thread, as the magnets hung from my ceiling. In the case of our local group, if NGC 6946 and M 31 set our outer sphere, being about 1.5 Billion l.y. apart, the center of our sphere of influence would be about half that much. Since we can see that we are not on the same plane as M 31, it is obvious that the Milky Way is travelling around our galactic group's sphere at a lower altitude.

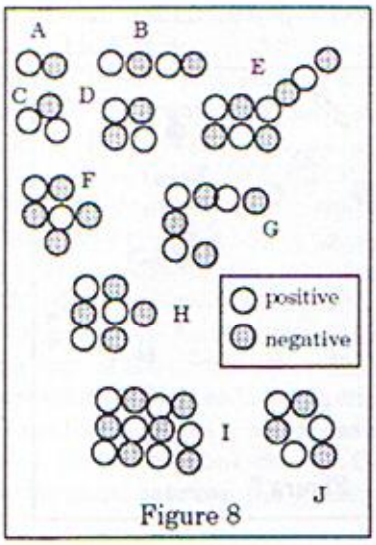


Figure 8

What is apparent in the photo of the Coma Berenices is that many of the galaxies (if not all) are arranged in a system where their galactic planes are either 90° to their neighbor or parallel to it or aligned likewise to objects some distance from their immediate "gravitational" field. Again, the stacking of galaxies in various altitudes seems to apply.

As noted, we tend to be in a binary system. The bulk of our universe seems to be composed of hydrogen and helium; then come carbon, oxygen etc., in generous quantities. Of all the natural mass we have discovered, shown in Figure 1, being now about 103 elements, everything reduces down to about two or three major components. Following this we know that most of the stars in the universe like to couple, as it were, and are binary. In order to couple, of course, following electro-magnetic and chemical theories, a positively charged component would link to a negatively charged component. In chemistry we can manipulate our 103 elements by swapping electrons from one nucleus to another, adding or subtracting, altering the weight and PH value, etc. In Magnetics we do the same thing, by cutting a large magnet into many small pieces of various sizes and shapes. Or we can arrange the magnets together as we like to create a larger magnet. But no matter what we do with magnets, we must arrange them according to a binary relationship, with apparently unlimited combinations of structures or filaments which can be derived from their arrangement. The "molecular" component in the few samples shown here in Figure 8 carries the electro-magnetic signature of its combined parts. "E" has a negative

bias, for instance, and if a particle were added to the chain on its corner (which makes a 45° angle to the rectangle structure) it could only be *positive* and, regardless of the earth's gravity, should one add a negative particle to the negative corner it would be rejected and captured by the plus corner. In fact, adding to the corner chain of "E" would cause the structure to collapse rectangularly, the preferred symmetry (with squared corners), or, if suspended, into a spherical shape.If one were to arrange a small group of wafer magnets like "G" on a table top, it would immediately "collapse" into the rectangular symmetry similar to "H". "F" is also unstable, though based upon the stable triadic structure of "C", because if it were to capture components it would attempt to form another rectangle. Putting two "F" formations together, for instance, would form a square, "I". Corners which are less than a 90° angle are more difficult to arrange, requiring compression or distortion of the natural rectangular order of the field and therefore such formations would not likely describe galactic formations. "C" would be the foundation of a basic globular galactic structure. Heat and cold, of course, affect magnetic relationships, and through compressing matter—and thus applying heat, we can observe crystaline structures such as rhomboids, etc. Doubling "C" to arrange "J" in Figure 8 obtains a structure familiar to most chemistry students, which is the magnetic signature ofthe Hexagonal Benzine Ring, Figure 9, each vertex of which is occuppied by a Carbon Atom.

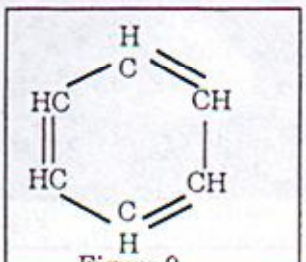


Figure 9

In Figure 4 we have a famous group of galaxies which are at the center of the red-shift controversy. All of the galaxies have been identified in the same group, or system, but the spiral galaxy, NGC 7320, in the lower left has a considerably smaller red-shift than the other four. In the center of the field are two spiral galaxies colliding at right angles to one another. Here again, the colliding galaxies and the anomaly in the red shift do not support the Big Bang theory. We can compare this to Figure 10, the Cygnus A radio image. Optically, as seen in the inset, Cygnus A appears as a giant elliptical glaxy (or two colliding galaxies; but the radio image shows a star "dot" between the two with jets shooting perpendicularly to either side, forming the two large nebulae whose lobes have wispy formations. "Near the outer edge of each lobe is a bright concentrated source of emission that must be fed by the jets with energy supplied from a central 'engine'", says Lawrence J. Aller, Atoms, Stars, and Nebulae, Harvard University Press,

Cambridge Ma., 1971).

Finally we can look at the Group of Nebulae (NGC 3185, 3187, 3190, 3193) in the constellation, Leo (see frontispiece). Here, again we have a combination similar to Andromeda, M31, and the Milky Way, where the one is approximately double the size of the other. In this case, however, both galaxies are in the same altitude, or flight plane, of their local group. The distance between them is not, as in the Milky Way's case to M 31, 10 x the diameter of the larger galaxy but only

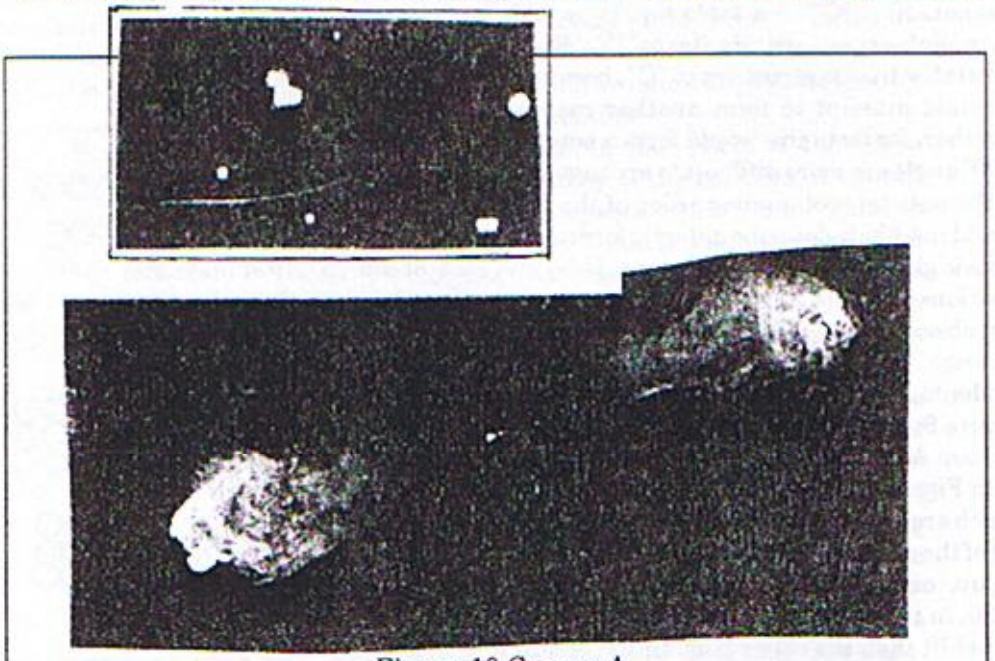


Figure 10 Cygnus A

one times the diameter of the larger galaxy. Also visible in the photo of the Leo Group is a third spiral galaxy whose galactic plane is parallel to the other two.

The two major galaxies in the field are colliding but not as we have seen in the other galactic collisions, where one mass mingles into the other as it were. Here we can see on either side of the smaller galaxy a *waterfall*-like structure which is accompanied in a similar, minor distortion in the larger galaxy, where the nebular cloud around its perimeter and its leading edge are tilted "northerly" to the group's galactic plane.

Repulsive—no forward motion? In the leading edge of the smaller galaxy we can trace a right angle distortion, or waterfall -like structure, which has three bands of nebular clouds in it. The distortion shows that the collision line is at the point of the "waterfall". It appears, because of the leading edge waterfall, that the smaller galaxy has come to a dead stop and is tilting to obtain a 90° angle to the leading edge of the larger disk. What we no doubt see here is two galaxies who have met head on, with positive pole to positive pole, in which case they must, like all magnets, repel from one another; and the repulsion field would be that field which approximates the diameter of the larger disk which occupies the space between the two colliders. The smaller galaxy is turning belly up, as it were. And because there can be no further forward motion of it towards the larger galaxy, it follows that when it reaches a 90° angle to the larger disk it should then remain at rest and captured, maintaining the same proximity it now has to the larger disk. Should it behave like magnets are want to do, the smaller galaxy could turn over on its back, negative pole to the larger galaxies' positive pole, and then through a filament bridge as in the whirlpool galaxy become a satellite galaxy. In any event what we see here is the big fish eating the little fish. Were we dealing with two equally sized galaxies, however, the distance of the shield between them would be double the size that is shown and they would engage no further because of that shield.

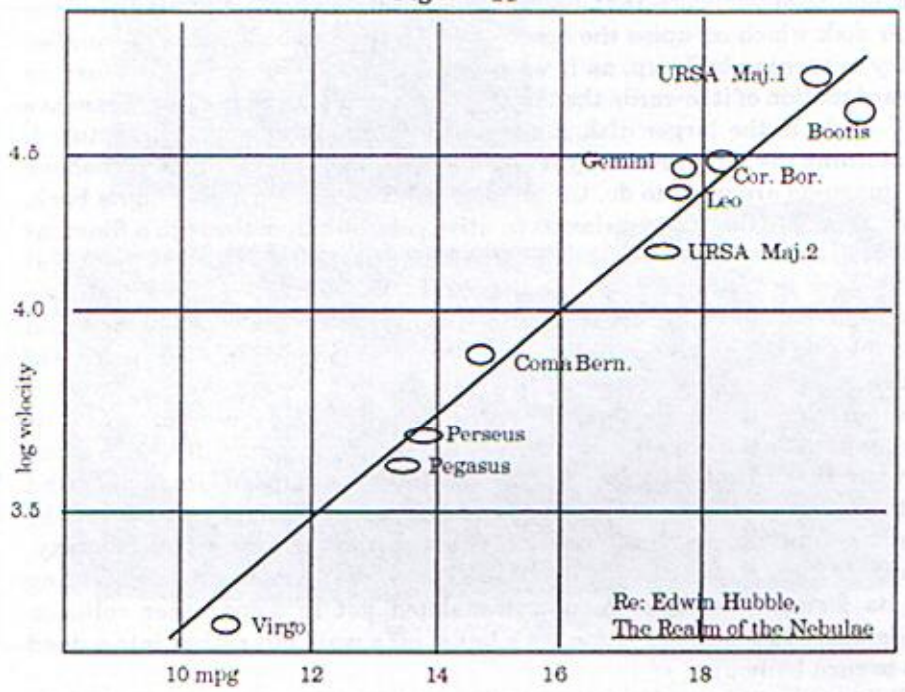
In this particular photo, as with other galactic collisions, we must ask how it is that these galaxies—being among the highest in red shift velocity and therefore the furthest distance from us (behind the groups in Ursa Major and Bootis as shown in Figure 11)—show a motion perpendicular to what would be expected to be the Big Bang trajectory, away from us. The smaller galaxy, because of its *waterfall* distortions on both poles, isn't going anywhere, having lost its forward momentum, now translated not in some other collision avoidance or ricocheting motion, as a bullet off a wall, but rather into a dead stop to turn belly up.

While comparing the behavior of galaxies to magnets, and thus inferring that gravitational effects are nothing more than electro-magnetic in nature, perhaps we have been a bit too simplistic; nevertheless the fact that magnetic forces have been measured throughout our galaxy and beyond supports our argument. What we do not know is the true nature of the magnetic forces involved; and we tend to overlook the possibility that a cluster of galaxies can behave like a benzine molecule.

Typical Clouds. Stromgren describes a typical cloud as having a diameter of

about 16 l.y., with a density of about 10 atoms per cubic centimeter and a total mass of about 400 suns. Bok described clouds ranging from small dense globules of diameters of 0.2 l.y. and mass 0.1 that of the sun (a ratio similar to Jupiter and the sun), extending to large globules of about 3 solar masses, 1.6 l.y. in diameter and densities of 1600 atoms per cubic centimeter and then larger clouds with 18,000 solar masses and diameters of 65 l.y., and densities about 10 atoms per cubic centimeter. Compare this now to Andromeda, over 1,000 times larger in

Figure 11



diameter (85,000 l.y.) to the relationships Bok described.

Measuring Magnetic Fields. The experts say that large-scale electric fields probably do not exist in our galaxy, since separation of electric charges cannot be maintained in an ionized gas. One piece of evidence of magnetic fields, besides those already mentioned, comes through the Hiltner-Hall effect, concerning the polarization of starlight. Where polarization was observed, filaments of ionized gas tended to be lined up along the direction of the magnetic field. Magnetic fields tend to constrain particles to motions parallel to the lines of force; and thus a

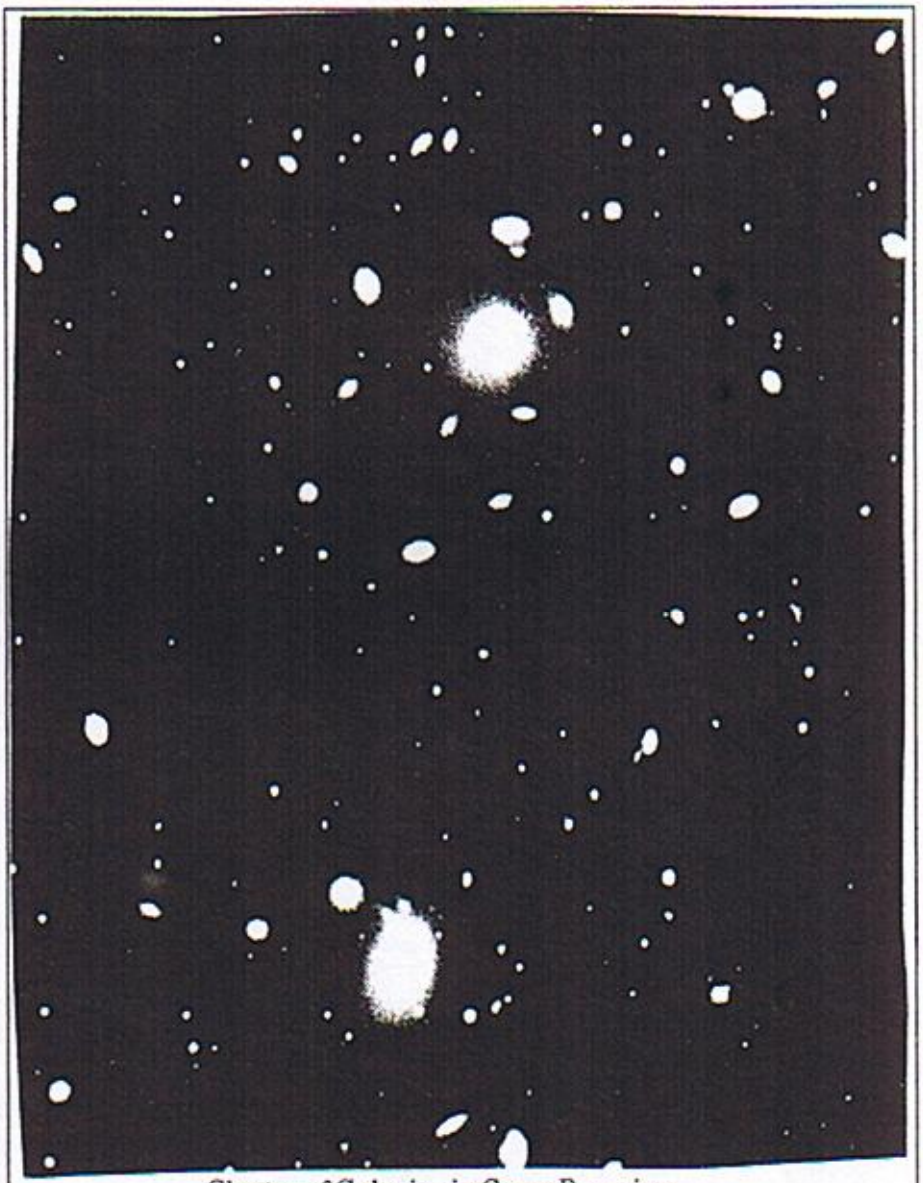
gaseous nebula would tend to deform along the direction of the magnetic field rather than perpendicular thereto, suggests Aller (pp. 177-179, Atoms, Stars, and Nebulae). He also notes that other evidence of magnetic fields is demonstrated by powerful radio-frequency emitters, with radiations at very long wavelengths, which are also called non-thermal r.f. sources. And such radiation is usually attributed to emission from very high-energy particles moving in magnetic fields. We, of course, have shown several of such emitters which are the colliding galaxies; and the Leo Group follow precisely the criteria above mentioned, how two galaxies in collision are being distorted along the direction of the magnetic field, rather than perpendicular to it. If we call the direction of the magnetic field a stream, then it makes sense that the distortion seen in the Leo Group would be seen as a waterfall effect, where the linear acceleration of the smaller galaxy is translated into a plane perpendicular to its trajectory; and this, by the criteria above established, shows that the direction of the magnetic field of the larger galaxy is flowing perpendicular to its disk's axis. And the smaller galaxy is caught in that current. In this particular example the forward filaments, or clouds, of the smaller galaxy are stretched in relationship to the other end of their members still within the confines of the undistorted portion of the spiral. This then suggests strong evidence that the stars in the *waterfall* have a faster acceleration than those stars within the confines of the yet undistorted spiral body. What does all this say? The lines of magnetic force flow linearly, in waves parallel to the plane of an object. As seen in the two spiral galaxies, each rotating around its individual north and south pole, their nebular mass flows around their central axis, and, through centrifugal force flattens into the spiral plane which we see. Unlike magnetic lobes in diagrams of the earth, or magnets, which show current "lobing" pole to pole, the spiral galaxy does not have such lobes, and rather have distended nebulae on a flat, disk-like plane. No nebulae are turning from their *equatorial plane* to trace a path to their opposite poles. What is occurring in the spiral galaxies, as it appears, is that the current of the filaments flows outward in an east-west axis perpendicular to the axis of rotation. In the smaller galaxy colliding in the Leo Group the filaments are suddenly turned, or *fall*, flowing parallel to its axis of rotation. The only thing which describes this kind of activity is the two magnetic objects meeting head on, positive pole to positive pole, causing each to repel one another, or, as in the case of our simple device of laying small wafer magnets on a table top, trying to lay them side by side with the "Plus side up" one or the other will flip over. This—though simple— seems to best describe the phenomena in the Leo Group Collision. That they are seeking

a point of rest with regard to each other along a new plane perpendicular to their "flight path" is not unusual, either with regard to the simple diagram of magnets hanging on a string, or with regard to our own Solar System. For in the Solar System all of our planets flow in the sun's nebular, equatorial plane; and, as we know, the axis and thus rotation of all the planets (except two) mirrors the axis and rotation of the sun. The two exceptions are Neptune and its "planet", Pluto. All of the planets in the Solar System revolve around the sun after the manner of a child's top; however, Neptune revolves the sun (with Pluto—about the size of the earth—revolving around Neptune, according to recent data) as a wheel, with its axis of rotation being perpendicular to the axis of the sun. What this suggests is that Neptune had an encounter with the sun which is similar to that encounter just discussed in the Leo Group. Obviously it is *at rest* with its axis sharing a 90° angle to the sun. Just as our simple field of magnets hanging from our ceiling, after a matter of a few hours find a position of rest to one another—which can be either in parallel lines of current or at right angles to the central current—so too can we see the galaxies and our own Solar bodies behave.

There is good evidence that the red-shift theory is not consistent and therefore cannot be scientific fact to establish that our universe began with a Big Bang. What we do see, however, are galactic groups, clusters, and super clusters and the motion of their parts according to their peculiar "orbital" systems. Where each one of their Group and Cluster systems are headed may be towards the outer limits of our balloon universe. But then, Figure 1 shows Clusters and Super Clusters in filaments and all the filaments yet measured are tied to a nebular cluster of one size or another; and rather than laying the universe in strange expanding shapes perhaps we might do better to look at it as a huge ball of string. Where the two ends of the string meet seems to be the real question at hand, as it also seems that someone may have unwound it and then crumpled it back up again.

M 6/24/94

cluster of galaxies in the constellation Hercules



Cluster of Galaxies in Coma Berenices