Jeffrey Keen

Measuring Dowsing

A qualified physicist as well as successful businessman and author, BSD member Jeffrey Keen describes some benefits of adopting physics for measuring dowsing.

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Man has been aware of dowsing and associated earth energies for at least 5,000 years, and probably for longer. However, progress in understanding the phenomenon has not been as rapid as that of other sciences, for example, astronomy. In fact, the present understanding of dowsing could be compared to the level of knowledge relating to astronomy about 600 years ago, where common belief considered that the sun revolved around the earth each day, the earth was flat, and the night sky was a mystery of lights revolving around the inside surface of a sphere above the earth.

The solution to the question "What is dowsing?" will not be obvious, and will probably be as counter-intuitive as the earth revolving around the sun and not vice versa. To make progress in understanding dowsing, it is necessary to adopt scientific principles which include the use of mathematics, as the universe in general has been best understood and defined by numbers. This, in turn, means that scientific progress needs to be made by undertaking laborious, meticulous, repetitive measurements. Indeed, it was this approach that led to the understanding of astronomy. However, compared to dowsing, progress in the understanding of astronomy was much easier because tangible, physical measurements could be made of such well-established concepts as distance, time, angles, and brightness of light. Moreover to take these measurements, instruments were available that were calibrated to high precision. To date, dowsing does not have these benefits.

This article will concentrate on the measurement of dowsing energy relating to stones, crystals and other tangible natural objects that emit dowsing energy, but are small enough to be portable, allowing experiments to be reproduced, and measurements made in controlled laboratory conditions.

The approach to the scientific measurement of dowsing adopted in this article will use measurements that are repeatable by different people and involve fundamental universally accepted scientific concepts such as Mass, and dimensions of a dowsable object and how these relate to the associated dowsable energy field.

The measurements that follow are to a sufficient accuracy to illustrate the principles involved. It is left to other researchers to refine techniques and to undertake the measurements to a higher degree of accuracy with larger samples. Where appropriate, suggestions are made as to areas for future research.

The following assumes a basic knowledge of dowsing and concentrates on the more advanced topics. Any terminology will be as used in the British Society of Dowsers EEG excellent book of definitions "An Encyclopaedia of Terms".

THE BASIC PRINCIPLES OF DOWSING PHYSICS

Conceptually, there are different forms of dowsable energy each with numerous characteristics, which, in general, fall into the following three main categories:

(a) Dowsable energy received from an emitting source that the observer can read passively and measure. Examples of this would be picking up dowsable energy (or auras) from rocks, crystals, water, plants, people, etc.

(b) Dowsable energy that is created and transmitted by the observer (via the brain?). Examples of this would be creating local or remote dowsable energy lines and energy fields, possibly hundreds or thousands of miles away.

(c) A mixture of the above two forms of dowsable energy, where the observer is interacting with the emitting source. Examples of this would be the dowser's brain using dowsing for healing where the dowsing energy characteristics of the "patient" are altered, or for modifying, moving and deleting dowsable energy fields, or for using dowsing techniques for answering questions.

Due to the limitations of space, this article only manages to give a brief "taster" to the physics and measurement of type (a) dowsable energy as defined above.

However, the panel below provides a brief overview of the "bigger picture", by summarising 17 Principles of the Physics of Dowsing that are developed in a sequential logical order. Each Principle depends on an understanding of the previous Principle(s). An appreciation of all these Principles is necessary to comprehend the wider physics of dowsing, and the resulting mathematics. Principles 1 to 7 represent known material, but are set out in a logical, structured, codified form that enable Principles 7-17 to be quantified with meaningful measurements, that in turn lead to the 8 Laws of Dowsing and mathematical formulae.

SUMMARY OF PRINCIPLES

1. What source objects are dowsing emitters
2. Detecting dowsing energy, but what is the dowser detecting?
3. Isolation of dowsing sources from their local environment
4. What dowsable properties can be measured?
5. Transformation of space-time co-ordinates
6. Geometrical shapes of Dowsable Energy Fields
7. The environment imposes relative measurements that may change in time
8. Measuring Range which is the distance over which an emitted Dowsable Energy Field can be detected
9. Propagation of Dowsable Energy Fields through space
10. The part of the human anatomy detecting dowsing
11. The charge and discharge of dowsable objects
12. The Power of Dowsable Energy Fields
13. Screening Dowsable Energy Fields
14. Distribution of Dowsable Energy Fields over the surface of source objects
15. 2-Body Interaction
16. Multi-Body Interaction
17. Interaction of 2 Dowsable Energy Fields

SUMMARY OF LAWS

1. Mass-Range relationship
2. Correction of an apparent detected Range to the

actual Range
3. Power-Mass relationship
4. Range-Power relationship
5.Range-Screening thickness relationship
6. Preferred configuration of 7 alternative bands and spirals
7. Range-Separation relationship for 2-body Interactions
8. Volume-Separation relationship for a 2-body generated Dowsable Energy Field

THE RANGE OF A DOWSABLE ENERGY FIELD

This article illustrates some of the benefits of using scientific principles, and, in particular, the measurement of Range, which is the furthest distance over which an emitted Dowsable Energy Field can be detected. A particularly interesting spin-off is the scientific demonstration of the effects of asking imprecise dowsing questions. Moreover, a high statistical correlation coefficient gives the dowser comfort that the correct questions have been asked and an accurate answer received.

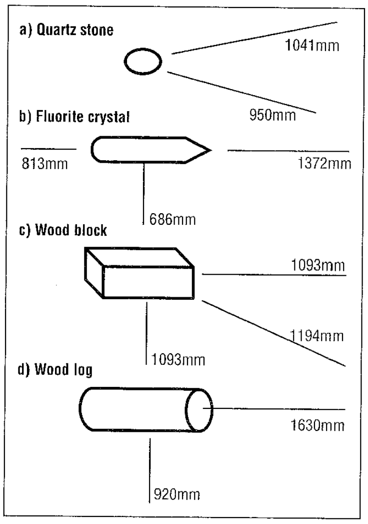

Fig. 1
The effect of shape on range

The easiest and most accurate measurement in dowsing is a positive "Yes" signal, when a dowsable energy field is detected. This fact forms the basis for most of the measurements in this article. One of the easiest and most useful measurements is to answer the question "What is the furthest distance from an object that a person can detect the dowsable energy that is being emitted by the object?" This shall be defined as the Range (r) and for the remainder of this article is measured in mm. The successful measurement of r is dependent on all of the Principles discussed above, and is also dependent on the following six additional factors:

(i) Principle 2 places a practical limit on the degree of accuracy. It implies that r depends on the questions being asked and the sensitivity of the person at the time that the measurement is being made. Although some expert dowsers claim they can dowse to the accuracy of the thickness of their dowsing rods, few dowsers can measure on site to an accuracy of less than about 10mm, even using the tip of a needle as a reference pointer.

(ii) Shape is an important factor. Measurements of Range have been made by the author for the following shapes:- sphere, ellipsoid, point, flat surface, hemisphere, cylinder and rectangular trapezoids. In general, an object with a point has a greater Range than a spherical or flat surface (i.e. a pointed object will emit dowsable energy for a further Range than a round object. This, in turn, has a greater dowsable Range than a flat surface emitting dowsable energy).

Figure 1 illustrates this effect. Figure 1(a) is an approximate ellipsoidal quartz stone where the Range varies from 950mm to 1041mm, depending on the curvature. The highest curvature surface produces the 1041mm Range. Figure 1(b) is a shaped Fluorite crystal, with a hexagonal cross-section, where the pointed end has a Range of 1,372mm, the flat sides have a Range of 686mm (interestingly half the Range of the pointed end), and the hemispherical end has a Range of 813mm. Figure 1(c) is an old, well-seasoned block of wood, where the flat surfaces have a Range of 1,093mm, whilst the pointed corners produce a Range of 1,194mm.

Figure 1(d) illustrates a newly-cut cylindrical wooden log and is included as "the exception that proves the rule". The flat surface has a greater Range than the curved circumference in this case, but this is caused by the addition of dowsable bionic energy along the axis of the maximum Range, as this is the same as the direction of growth of the original branch of the tree from which the log was cut.

(iii) The size of an object is an important factor. The Range of a megalith is much greater than the Range of a grain of sand. Figure 2A illustrates graphically this factor for smaller specimens of quartz. As the mass of the object increases from less than 0.1gms to 16gms, the Range increases from 400mm to 2,000mm. (In these examples, size is measured as mass, and a similar graph occurs with different masses of different substances.).

It is interesting to note that as Mass (the x-axis) tends to zero, the Range (the y-axis) does not tend to zero, as would be expected. This implies either a universal or local background dowsable energy is being detected and superimposed as an effect in addition to Principle 3, or a more mundane zero calibration error of between 100-500mm caused by the measurement of the distance from the source to a consistent part of the human body (typically the leading edge of a foot) not being equal to the part of the body detecting dowsable energy. The latter effect seems to be accentuated by the two very smallest specimens, where the measured Range was about 200mm. If these two specimens are ignored, the trend line in Figure 2B has a better fit to the data, but is this statistically valid or sound science? The answer is no, but the above exercise is useful in emphasising both the strength and weakness of attempting to undertake measurements whilst dowsing.

The above laborious analysis is an example of the wrong conclusions being reached, even if one obtains the best-fit graph with the highest correlation to the data. In this case, the wrong result is obtained because Principle 2 has been ignored i.e. the wrong dowsing questions were asked initially

With the benefit of hindsight, and using all the concepts derived from Principles 1 to 7, the following two dowsing questions should be asked:

1. "Is there a local background Dowsable Energy Field interacting with the source object(s) and superimposing itself on the measurement of Range?"
2. "Is there a zero calibration error because:-

(a) The true Range should be the horizontal distance between the centre of the source object(s) and the centre of the part of the human body detecting the dowsable energy? And

(b) The measured Range was from the source object's outer surface to, say, the observer's thumb or leading toe, and the measurement of the distance was with the tape-measure resting on the ground, not at the correct height?"

The complexity of these questions illustrates the challenge highlighted in Principle 2, of phrasing the correct dowsing questions, and channelling them into the subconscious.

Measuring Dowsing

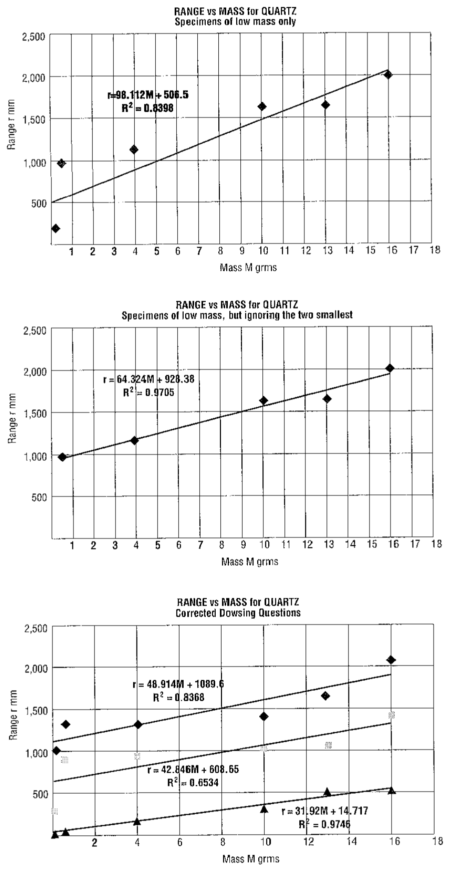

Fig. 2a, 2b, 2c

As both the above questions give a strong positive "Yes", Principles 2, 3, 5 and 7, in particular, should be invoked to repeat the experiment illustrated in Figures 2A and 2B, by asking re-phrased and more precise dowsing questions. The results are shown in Figure 2C.

Series 1, in the graphs of Figure 2C, is a plot of data obtained in response to the general imprecise, ambiguous question:

"Give me a "Yes" indication when any part of my body first detects dowsing energy whilst walking towards the source object(s)."

Although the ensuing trend line for Series 1 data has a reasonably good correlation, it produces, as before, a Range of 1,000mm for an object of zero mass, which intuitively seems wrong.

Series 2 is a repeat of the same experiment with the same six different sized source objects of the same substance – quartz crystals, but asking the following dowsing question:

"Give me a "Yes" indication only to the dowsing energy emanating from the source object, and ignoring any local background dowsable energy or the effects of any other dowsing interactions on the source object, when any part of my body first detects only the dowsing energy from the source object(s), whilst walking towards the source object(s)".

Although the correlation of the trend line for Series 2 is not as good as for Series 1, the Range as Mass tends to zero, is, as expected, less than for Series 1. There is, however, a repeat of the Figure 2A anomaly, where the data for a very low Mass of 0.1 grams does not seem to relate to the remainder of the data between 0.5gms to 16gms.

Series 3 is a plot of the same experiment as Series 1 and 2, but asking the following more specific and relevant dowsing question:

"Whilst walking towards each of the different sized quartz crystals, give me a "Yes" indication only to the dowsing energy emanating from the source object, and ignoring any local background dowsable energy or the effects of any other dowsing interactions on the source object, but transform the co-ordinates of the measurements being made, so that the reading of Range being measured on a scale resting on the ground, with a consistent reference point of the leading edge of the right shoe, is corrected to the true Range, which is the horizontal distance from the centre of the source object to the centre of the part of the observer's body which first detects the relevant dowsing energy."

Although this seems a horrendously complex question, the concepts in practice present little difficulty to experienced dowsers. For posing complex questions, visualisation of the exact situation being dowsed is a better technique than attempting to use language. As will be seen in Figure 2C, Series 3 data results in a straight line, not only with a very high correlation, but passes through the origin within a 15mm acceptable tolerance of measurement error. This is an intuitively satisfying result of "No object produces no Range".

The above analysis has been deliberately restricted to specimens of small Mass, where the Mass-Range relationship is reasonably linear. Analysis of the Mass-Range relationship for both small and large objects requires the data to be plotted on a logarithmic scale. It is more difficult to understand the underlying physics and mathematics when a logarithmic scale approaches zero.

In the real world, although the graph in Figures 2A, 2B and 2C are linear, as are the M and r axes for small specimen sizes, in practice, the Range becomes asymptotically to a maximum limit of about 10 metres for the largest megaliths. The Graphs in Figure 3A and 3B have a logarithmic Mass axis and relate to data for much larger specimen sizes from grains of sand to megaliths. Graph 3A relates to small source objects of hard igneous rocks and crystals, whilst Figure 3B includes all the data from Figure 3A plus larger sized objects of wood and other types of specimens. As expected, the linear relationship of the trend line in graph 3A for similar types of specimens is greater than for graph 3B, which represents a wider sample of miscellaneous objects, each substance having a disparate dowsing coefficient.

Although the data for Figures 3A and 3B was not gathered with the same precision of detailed dowsing questions, unlike the much smaller Range of data analysed above in Figure 2C, the general conclusions are correct, and suggest an area for more detailed research work by repeating the above experiments based on more precise dowsing questions.

When using a homogenous population (i.e. similar types of dowsable sources), Graph 3A suggests a best fit trend line which leads to:

Law 1,

The formula for the Mass - Range relationship is of the form

$r = a \log M + b$ (Law 1.1)

where r = Range; M = Mass;

a = the dowsing coefficient, which is a constant for different substances, and it represents the slope of the line in Figure 3A. Substances producing large dowsable Ranges will have large values of a, and hence a line of greater slope;

b = a local background constant due to the effect of dowsing energy picked up from the neighbouring environment. By asking the correct relevant dowsing question, b would tend to zero.

The dowsing coefficient, a is approximately equal to 200 for hard igneous rocks.

Graph 2C (Series 3) suggests for small, low mass specimens, with all the sources of possible variation taken into account, this Mass-Range law approximates to a linear relationship of the form

r = d.M. (Law1.2)

For quartz, d, a dowsing constant, is approximately equal to 32.

Although it is dangerous to extrapolate outside the range of relevant data, an interesting consequence of Law 1.1 is that an imaginary sphere of hard rock having the same mass as the Earth will only have a dowsable range of about 13 metres. This is not much greater than the range of the largest megaliths, and seems counter intuitive. If this conclusion is correct, it places a significant limitation on the ability of the type of dowsing energy studied above, emitted by solid matter, to interact over long distances.

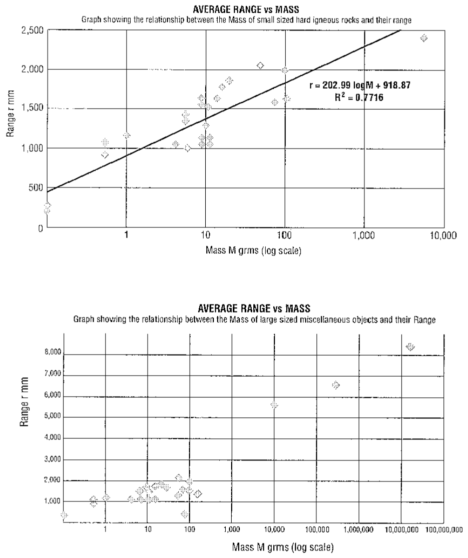

Fig. 3a, 3b

However, it is well known that the Moon and the Sun (and possibly other celestial bodies?) affect dowsing, and influence such factors as the direction of energy flow and width of dowsable energy lines, or the power of megaliths. Therefore either Law 1.1 is incorrect for very large masses, or there is a different dowsing mechanism for the transmission of the dowsing energy emitted by solid objects over large distances. Could this "long distance" type of dowsing energy be similar to the dowsing energy emitted (and also received) by the brain when a dowser is involved in such activities as:– the placing of remote energy lines, remote healing, map dowsing, remote viewing, using visualisation for predicting co-incidences, or even dowsing for very deep water veins?

The physics of two-body and multi-body interaction is covered elsewhere in Principles 15 and 16.

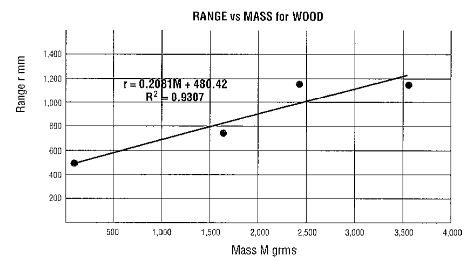

Fig. 4

Good subjects for future research are to:-

(a) Measure accurately the dowsing coefficients a and d for different substances.

(b) Repeat the above experiments with data from a significant number of objects having larger Masses.

(c) Determine if Law 1.1 applies to very large masses.

(d) Determine scientific methods for the measurement of "long distance" dowsing energy, similar to the above graphs for short range dowsing energy.

(iv) The type of material significantly affects Range. Different rocks, crystals or wood of similar sizes emit dowsable energy that can be detected at different distances. Comparisons between Figure 2A and Figure 4 illustrates how the Range of quartz is greater than a similar specimen of wood (keeping dowsing questions, mass, shape and height similar). In this example, only 5gms of quartz produces a dowsable Range of 1,000mm, but 2,500gms of wood are required to produce a similar 1,000m Range.

Figures 5A and 5B give the Mass-Range relationship for 20 different materials of varying masses, that includes non rock-like substances, such as wood, fossils, clay pots, etc. It also includes, for each shaped specimen, the maximum (i.e. the pointed end), minimum (i.e. the flattest end) and an average (i.e. a representative curved end between the sharpest and the flattest parts of the object) Range in different locations. Figure 5B is a subset of Figure 5A for hard igneous rocks, and their maximum Range obtained from their pointed or sharpest orientation. The graph in Figure 5B has a high correlation to the formula r = a logM + b (Law 1), as expected, because the samples have similar dowsing coefficients, a. It is also apparent that more data is required for larger mass specimens

(v) The State of Charge is another obvious factor. As will be seen in Principle 11, all objects can have varying levels of charge over a period of time. Objects that have become discharged (e.g. via interaction with humans, or by being placed in a negative dowsable energy line) will result in a reduced Range.

(vi) Lastly, but not least, for small objects of a few cm size, the height in relation to the observer is relevant. (See Principle 10). This height factor is not relevant when detecting dowsable ley lines or Neolithic sites, where the size of the person dowsing is negligible.

SUMMARY

In summary, this article illustrates the benefits of adopting a scientific approach to dowsing, which entails the utilisation of Physics, repeatable measurements, and the use of mathematics. The Universe is defined by numbers, geometry, and mathematical equations. This article covers just one of numerous possible measurements – range. This is defined as the furthest distance that a dowsable energy field can be tangibly and physically detected from its source by a dowser (using for example, just rods or pendulum).

To isolate the basic factors and physical principles involved, only "on-site dowsing" has been covered in mainly controlled laboratory conditions in order to eliminate the numerous interactions of complex Earth energies (Neolithic sites can double a stone's range), or possible uncertainties from remote dowsing. Analysis of the experiments concludes that range mainly depends on the observer and the question being asked, the shape of the source, its mass, its composition, its state of charge and its height in relation to the observer.

The graphical representation of the experimental results and the high correlation coefficients confirm the accuracy of this basic measurement technique, and demonstrates scientifically that dowsing is more than a myth. In practice, mass and the composition of the source are the most important factors, and are represented by a logarithmic law linking range and mass for differing

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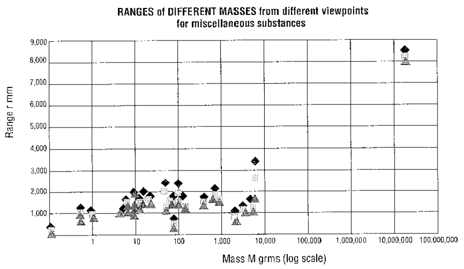

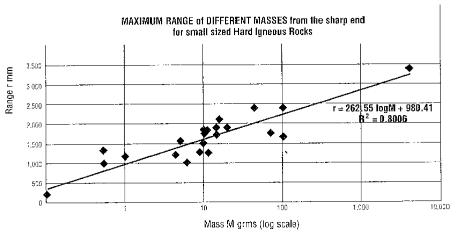

Figs. 5a, 5b

substances. Crystals and hard rocks produce the greatest dowsable range.

A particularly interesting spin-off is the scientific demonstration of the effects of asking imprecise dowsing questions. Moreover, a high statistical correlation coefficient gives the dowser comfort that the correct questions have been asked and an accurate answer received.

Another interesting result of this analysis and the mathematical relationships discovered, is that the "Type 1 on-site dowsing energy" measured in this article can only interact over very short distances, even for massive objects. Consequently, this Type 1 dowsing energy cannot be responsible for long-range dowsing, such as celestial influences or remote and map dowsing, etc. This is triggering research into other types of dowsable energy fields using similar techniques as in this article, to record human detection, and measure range and other factors.

Space limitations of this article do not allow explanations of numerous other fascinating findings of dowsing effects resulting from the simple measurement of range. The table of principles and laws at the beginning of this article alludes to some of these results.

THE WAY AHEAD

Any person, group, or academic body interested in taking any of the above concepts further, wishing to undertake their own associated research work, or just requiring more information, should contact the author via the BSD office The author would be willing to co-ordinate this work with others in a structured and more productive method of working.

(Jeffrey Keen, with those who have assisted him, is to be congratulated on a fine piece of pioneering work that merits wider support. PD)