## What can you do with your Sputnik sensor?

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#### WWW.sputnik.bio-well.com

Energy Environment sensor (EES) "Sputnik" is designed for the following measurements:

- Energy Active Zones;
- Historical Places, Ancient Monuments;
- Meditation;
- Influence of different devices to the environment.

EES Sputnik works with Bio-Well device by connecting to the jack of the metal cylinder installation (fig.1).



Fig.1. Bio-Well with Sputnik.

## The principle of Sputnik operation

Bio-Well device contains a system of resonance coils of Tesla type (fig.2). When we apply short impulses of EMF to the primary coil, it stimulates the high-voltage impulses on the secondary coil, which is connected to Sputnik. Under these impulses Sputnik emits standing electromagnetic waves in space. The signal depends on the propagation of these standing electromagnetic waves.

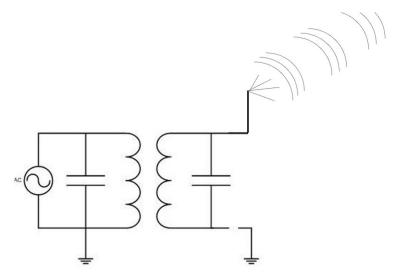


Fig.2. The principle of Sputnik operation.

If we operate **in the room**, propagation of the EMF waves depends on the construction of the building and the presence of grounded and conductive subjects in the room.

If we have a person in the room, the body is conductive, and it influences the signal (fig.3).

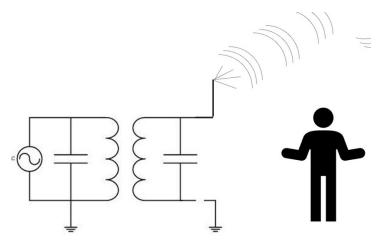


Fig.3. The principle of Sputnik operation.

If a person has some emotions or stress, it changes of the ANS activity, and changes the capillary blood circulation, changing the skin conductivity, that would be reflected on Sputnik signal.

With a group of people, the changes may be even stronger (fig.4).

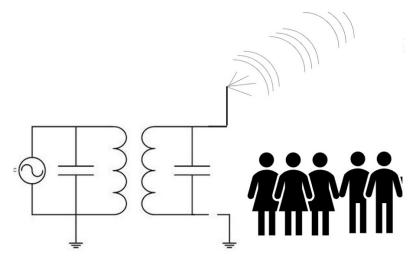


Fig.4. The principle of Sputnik operation.

If we operate **in the environment**, propagation of the EMF waves depends on the environmental conditions: amount of positive and negative ions, number of particles in atmosphere, EM fields, conductive subjects around, etc.

#### What we are measuring?

Technically we are measuring photons, emitted by the surface of a metal cylinder in the process of sliding gaseous discharge. Parameters of the discharge depend on the several factors:

#### Air pressure (altitude)

As you can see from the graphs of fig.5, at first glance, the measured energy totally correlated with the altitudes. However, careful analysis demonstrates that these correlations are quite conditional. Data of measurements at Zero meridian at the altitude 2700 m demonstrated higher values compared with subsequent measurements at the altitudes 3600 m, 3000 m and 2600 m. Also the values at the volcanic Galapagos Islands were higher than those at some higher altitudes. At the same time the highest readings were recorded at the altitudes 4000 m and 5000 m which may be related both to the high energy of these places and to physical properties of the gaseous discharge. The latter dependence is described by the so-named 'Paschen curve', which demonstrates dependence of the discharge ignition potential "U" from the gas pressure "p" and electrode size "d". Paschen curve for the air is presented at fig.6. As you can see from this graph for the range of atmospheric pressures under investiga- tion (417 – 550 - 760 mm. Hg) the change of the potential "U" is not big and should not have very strong influence to the data. So we may conclude that acquired data really represented the values of energy at the different measured areas.

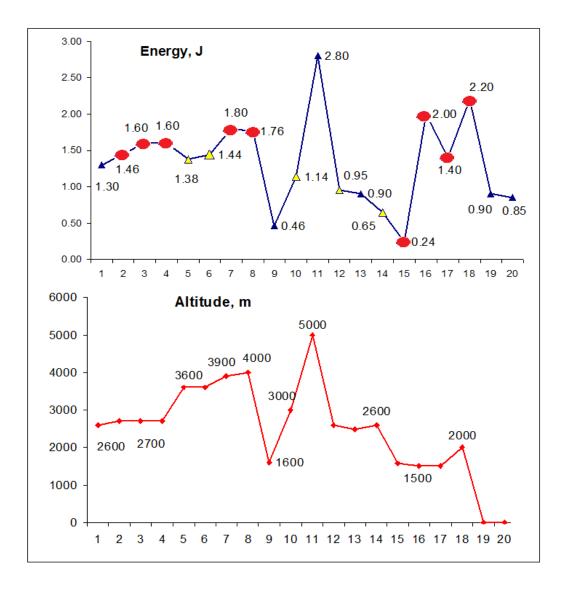


Fig.5. Energy measured in Ecuador in different days together with the graph of the altitudes where data were collected. By the red dots marked several measurements in the same area.

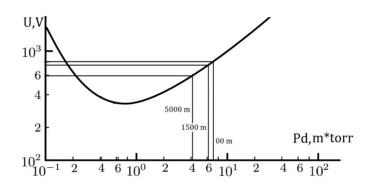


Fig. 6. Paschen curve for the air

#### Humidity

Sputnik signal depends on the humidity, while Bio-Well measurements of human fingers does not (of course, if a person don't change physiological state). But above 70% humidity influences human measurements (fig.7). As you see from fig.7, the image became more scattered, which resulted in Stress level. In high humidity Stress level, measured by Bio-Well, is not valid, while it practically does not influence the Energy level. We guaranty correct measurements of the Bio-Well human fingers parameters in the range 30-70%.

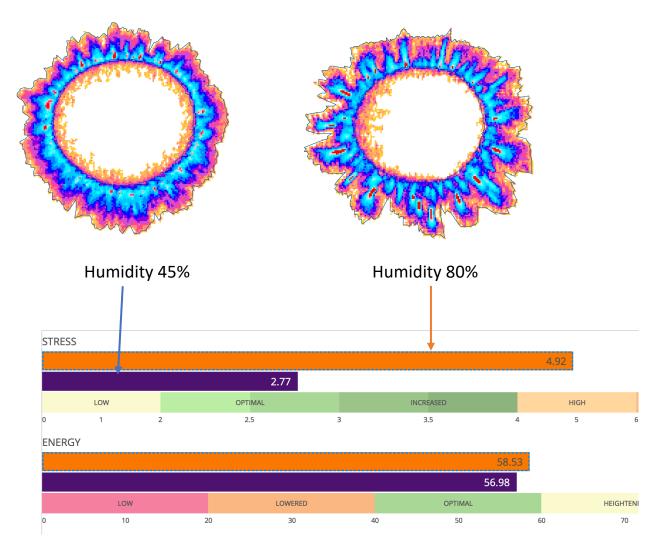


Fig.7. Bio-grams of the same person and comparison of parameters at different humidity.

Humidity depends on the temperature (fig.8) – the higher the temperature, the more water molecules contain in the air.

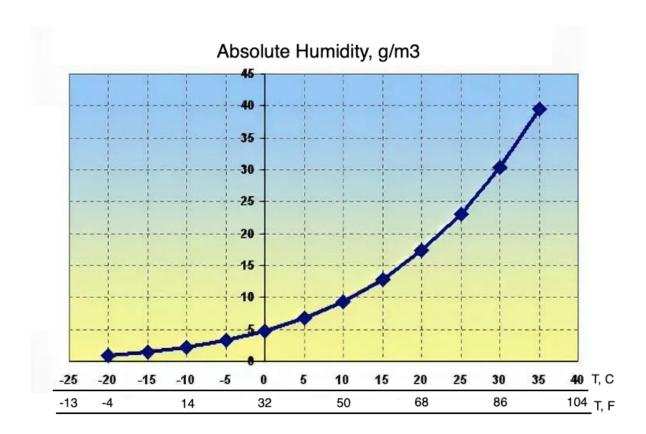


Fig.8. Humidity dependence on temperature.

Sputnik measurements after calibration depend on humidity (fig.9), that is why in 2023 we begin production of a little sensor for measuring humidity and temperature (fig.10). We recommend to use this sensor with Sputnik sensor and record humidity with your data.

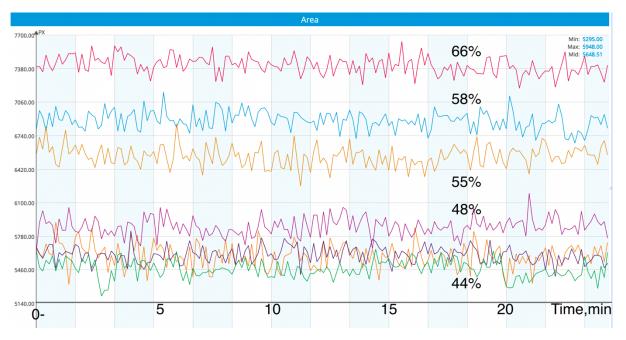


Fig.9. Measurements with Sputnik sensor in different days at the same place in Greece. Numbers show the level of humidity.



Fig.10. Bio-Well humidity meter.

#### Composition of gases in the atmosphere.

Gaseous discharge depends on composition of different gases in the atmosphere. This factor impossible to evaluate without spectroscopic measurements, but we need to keep in mind that strong emanations of technical or natural gases will affect Sputnik data.

## **Procedure of Sputnik measurements**

#### In all cases first we do calibration – on-line or off-line.

#### **Environment measurements**

The aim of the environment measurements is to compare parameters at the particular area with parameters of other locations. Usually, we take readings in the morning at the hotel, and then take readings in the area of interest located not far away. For example, you may compare readings nearby pyramid, and at a distance from the pyramid. If you need to measure some territory, you have to do a plan (a map) of the territory, and take measurements at some cardinal points.

We can use two modes of measurements:

- Sputnik measurement in the Environment mode.
- Sputnik measurement in One Finger mode 50 times.

In the Environment mode recommended time of measurements is more than 15 minutes. This allows to calculate the graph of the Activity Level of Environment (fig.11). Later on we'll discuss how to get this graph.

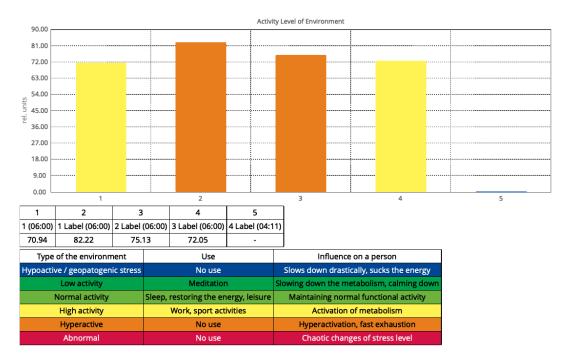


Fig.11. The graph of the Activity Level of Environment

If you do not have time, take Sputnik measurement in One Finger mode 50 times. This is particularly recommended when you have to do a lot of measurements at some territory or in the house.

# Meditation measurements and detecting effect of different devices to the environment.

In this case you need to have background measurement for at least 10 minutes, and only then start measuring the influence.

## **Parameters for analysis**

The main parameters we are taking into consideration are:

• Area

- Energy
- Area Standard Deviation
- Entropy

Area (S) is proportional to the number of photons emitted by metal cylinder.

**Energy** (E) is evaluation of their energy in Joules. Equation for the Energy in the Bio-Well case may be presented as follows [Korotkov K. The Energy of Health]:

$$E(J) = S*I*4*10^{-8}$$

Where I is relative intensity.

Due to different scale, Energy usually is less sensitive than Area, so you need to see which parameter to choose for better reflection of your process.

**Area Standard Deviation** is characteristic of signal variation. It is very important parameter, as it shows signal stability which reflects stability of the environment. From this parameter we calculate the **Activity Level of Environment** parameter.

#### Entropy (Shannon entropy)

Shannon (informational) entropy is a measure of a change of information in some process. We calculate it as follows:

- 1. For the first 120 points, we calculate the coefficient K which is considered to be the standard deviation of the area at these 120 points.
- 2. Then we calculate this coefficient in the regime of sliding window.

2. For each new point, we calculate the coefficient S which is considered to be the standard deviation of the last 20 points.

The entropy is equal:

Entropy = (1.0 - (K/S)) \* 100.0

## **Data processing**

As a result of measurement in the Environment mode you receive graphs of parameters time dynamics (fig.12).

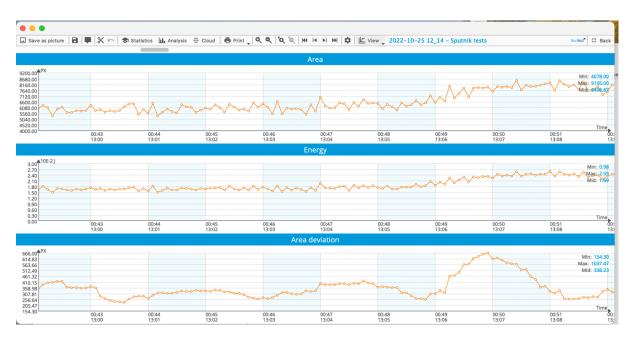


Fig.12. Graphs of parameters time dynamics.

On Y scale you see the absolute time from the beginning of experiment and the time in the place of measurements. Please remember that we remove data of the first three minutes, we need this time for the sensor to adjust to the environmental conditions.

Simple way of processing is to press button **Analysis**. You will see the graphs of parameters averaged on every 25 seconds (fig.13).

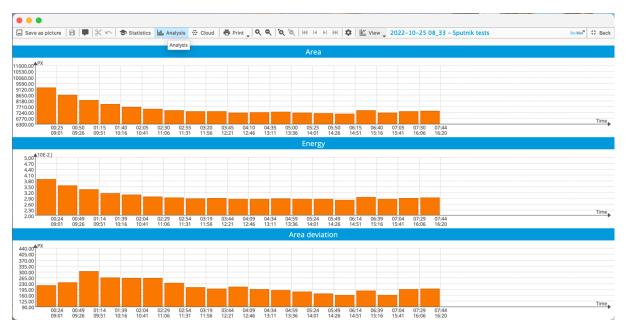


Fig.13. Results of Analysis processing.

This way of processing make sense if your experiment lasts for some time.

We can use more sophisticated way of analysis by pressing button **Statistics**. New screen will appear (fig.14). You need to add **Labels intervals** by pressing button marked by red arrow.

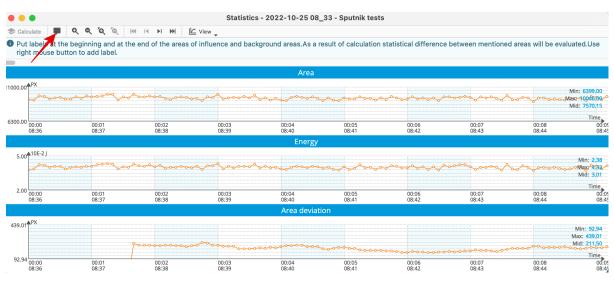


Fig.14. Statistical analysis screen.

Interval depends on the total time of the experiment: for example, if your experiment lasted 7 minutes, you may choose 1 minute interval; if your experiment lasted 5 hours – 300 minute. The graphs of Activity Level of Environment is calculated based on Area Standard Deviation during 360 points of measurement. If we are measuring with 1 second interval, we need 6 minutes

**Labels intervals** to get this parameter (fig.15). With 3 minutes interval we need 18 minutes, and so on. We recommend you to add first Label in the beginning of measurements (fig.16) by pressing right mouse button at the beginning of a scale.

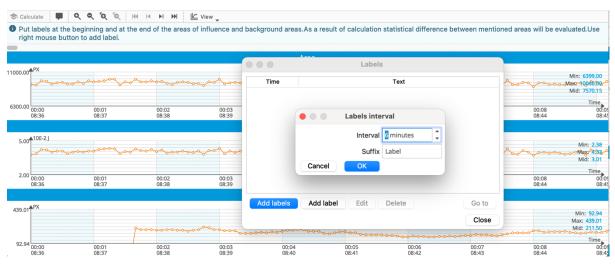


Fig.15. Statistical analysis screen.

|                  |                           |  |                      | Static             | ics - 2022-04-20 12_12 - Sputnil     | tasts                         |                     |
|------------------|---------------------------|--|----------------------|--------------------|--------------------------------------|-------------------------------|---------------------|
| . 84             |                           | 0 0 0 0                                      |                      |                    | ics - 2022-04-20 12_12 - Sputin      | ( lesis                       |                     |
| 00 <sup>PX</sup> |                           |  |                      | - *                |                                      |                               |                     |
| 00               |                           | e beginning and at the<br>tton to add label. | e end of the areas o | of influence and b | ackground areas.As a result of calcu | lation statistical difference | between mentioned a |
| 00               |                           | iton to add label.                           |                      |                    |                                      |                               |                     |
| 9000.00 Area     |                           |  |                      |                    |                                      |                               |                     |
|                  | 12000.00 PX               |  |                      |                    |                                      |                               |                     |
| 00:00            |                           |  |                      |                    |                                      |                               |                     |
| 12:15            |                           |  |                      |                    |                                      |                               |                     |
|                  | 6000.00 00:00             | 00:00  | 00:00                | 00:01              | Please enter label                   | 00:02                         | 00:02               |
| 1.0.11           | 12:15                     | 12:15  | 12:16                | 12:16              |                                      | 12:17                         | 12:18               |
| R.U.             |                           |  |                      |                    | 1                                    |                               |                     |
| 00<br>00<br>00   | < 110.00 <sup>AR.U.</sup> |  |                      |                    |                                      |                               |                     |

Fig.16. Manual enter of a first label.

By pressing **close** you will see the graphs with added intervals (fig.17).

| -                                   | n to add label.                                    |  |  |  |  |  |                               |
|-------------------------------------|--|--|--|--|--|--|-------------------------------|
|                                     |  |  | Are                                      | a  |  |  |                               |
| 00.00 <sup>PX</sup>                 | 1 Label  | 2 Label                                      | 3 Label                                  | 4 Label                                  | 5 Label  | 6 Label  | 7 Label<br>Min: 6399.0        |
| nanda                               | human har way                                      | many   | mpm                                      | Mar Marina                               | mymm   | mannanter  | Max: 10046.                   |
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| 5.00 10E-2 J                        | 1 Label  | 2 Label                                      | 3 Label                                  | 4 Label                                  | 5 Label  | 6 Label  | 7 Label<br>Min: 2.<br>Max: 4. |
| 2.00<br>00:00 00:01<br>08:36 08:38  | 00:03 00:05 00:07 00:09<br>08:40 08:41 08:43 08:45 |  | 0:16 00:18 00:20 0<br>8:52 08:54 08:56 0 |  | 00:27 00:29 00:31 00:<br>99:03 09:05 09:07 09: |  | 00:42 00:44<br>09:18 09:20    |
|                                     |  |  | Area de                                  | viation                                  |  |  |                               |

Fig.17. Statistical analysis screen with embedded intervals.

After introducing Labels press the button **Calculate** and you will receive a screen of parameters (fig.18). Every bar shows parameters, averaged on selected interval. You may see all the parameters: Area, Intensity, Energy, Area Standard Deviation, and in case of appropriate intervals, the **Activity Level of Environment** screen (fig.19).

Under every graph you see statistical comparison of two adjusting interval with parametric and non-parametric analysis.

Based on many years of experiments, we defined how environmental conditions may influence human state (fig.20): places with very high variation of parameters may have negative influence on human condition.

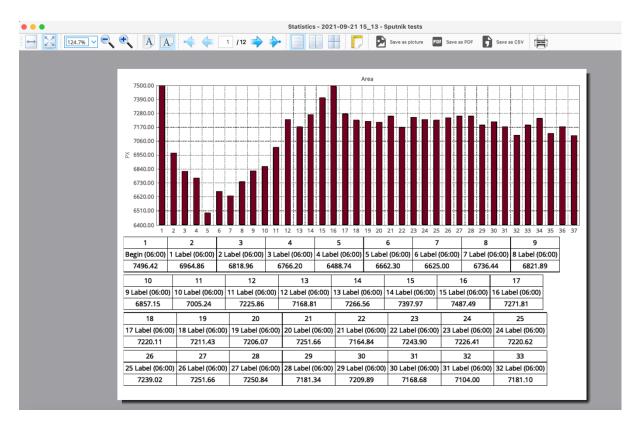


Fig.18. Screen of parameters.

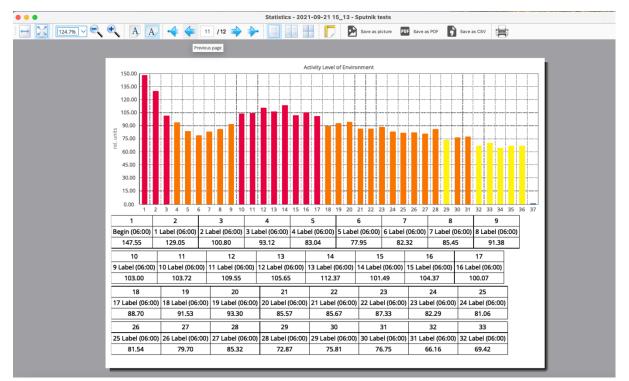
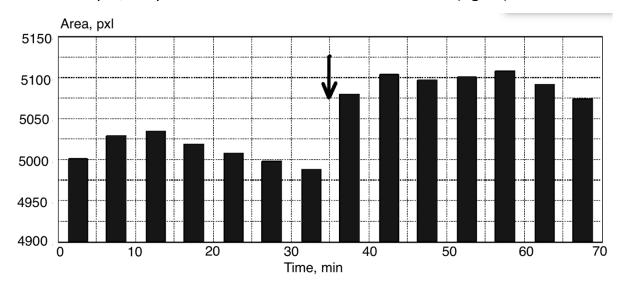


Fig.19. The Activity Level of Environment screen.

| Type of the environment             | Use                                  | Influence on a person                     |  |  |
|-------------------------------------|--------------------------------------|---|--|--|
| Hypoactive / geopatogenic stress    | No use                               | Slows down drastically, sucks the energy  |  |  |
| Low activity                        | Meditation                           | Slowing down the metabolism, calming down |  |  |
| Normal activity                     | Sleep, restoring the energy, leisure | Maintaining normal functional activity    |  |  |
| High activity                       | Work, sport activities               | Activation of metabolism                  |  |  |
| Hyperactive                         | No use                               | Hyperactivation, fast exhaustion          |  |  |
| Abnormal                            | No use                               | Chaotic changes of stress level           |  |  |
| Activity Level of Environment, rel. | units                                |   |  |  |
| <25                                 |                                      |   |  |  |
| 26-40                               |                                      |   |  |  |
| 41-55                               |                                      |   |  |  |
| 56-75                               |                                      |   |  |  |
| 76-100                              |                                      |   |  |  |
| >100                                |                                      |   |  |  |

Fig.20. The Table of possible influence to a person in accordance with the **Activity Level of Environment.** 



As an example, we present below two cases of meditation (fig.21).

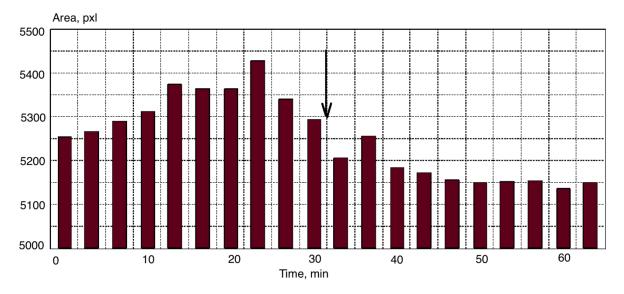


Fig.21. Examples of recording meditation (beginning of meditation is marked by arrow).

In these cases Sputnik was running in Environment mode for 30 minutes and then people start meditating. This approach leaves no doubts that the change of Sputnik signal was due to meditation.

Another example – measurements at Sacsayhuaman site nearby Cusco, Peru, performed together with Prof. D. Galitskii. Sacsayhuaman, on a par with Machu Picchu, is the most famous visited ancient monument in Peru. We measured for three days in July and one day in November 2018. All data correlated well. On different days, the humidity changed from 36 to 33%; the temperature was 19 +/-1 C., but during the last measurement, it was raining and, in the evening, it got cold. As can be seen from the fig. 20, we can conditionally distinguish zones that differ in the magnitude of the signal. Note that the measurements were carried out for three days, and all the results were well matched for the presented scheme. The results suggest the presence of a geo-active zone in the area with the strongest signal. As we can see, this area embraced the space in front of the fortress, which, as is known from historical evidence, was used for mass ceremonies. At Sacsaywaman, the parameter of Environmental Activity had low values which indicates a favorable energy environment for people.

The values of the averaged parameters measured at several ancient sacral sites, and in the hotel, were, differ significantly (Fig.22). The height of the places varied from 3550 m in Cusco to 3700 m in Tambomachay, which could not affect the

results of measurements, weather conditions also did not change significantly. The distance between all places does not exceed several kilometers. So, we may conclude that these data suggest on existence of a special energy at the ancient sites. Similar results we received measuring the energy of pyramids (see paper at www.iumab.club).

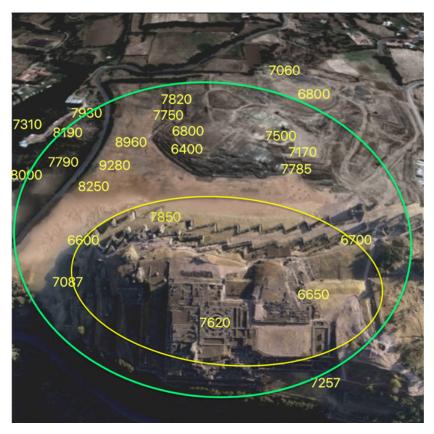


Fig.22. Averaged Area data in different places of Sacsayhuaman site in Peru.

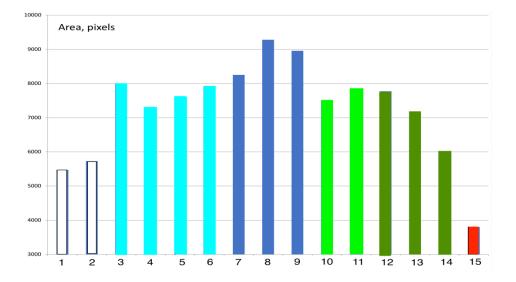


Fig. 23. Averaged parameters in different points of measurements. 1 – Nazca hotel; 2 – Nazca cave; 3-6 – near Sacsaywaman; 7-9 – Sacsaywaman; 10-11 – Tambomachay; 12-14 – Qenco; 15 – Cusco hotel.

### **Comparison of several measurements**

After comparing several measurements from the Environment mode, you will receive the following screen (fig.24). As an example, we present data from our measurements in Belize.



Fig.24. Compare screen.

From this graph it may be difficult to evaluate the difference between measurements, so we press the button **Charts** and get the following screen (fig.25). As we see, the highest medium Area was at Xunantunich pyramidal complex measured in two places. This Area was much bigger than at other complexes, and at the Resort. On other parameters different pyramidal complexes demonstrated different results, but in all cases, it was higher than at the Resort. This confirms idea that pyramids have significant influence to the environment [Korotkov K.G. Pyramids: the influence of form on the environment. *Acta Scientific Medical Sciences* 2022, 6.5:81-85].

| IL Plots IL Charts ☆ Cloud   |   |
|--|---|
| 🛠 🔟 Analysis 👼 Print all 🔍 🔍 🔍 🔍 🕪 🗵 🗵 😾 🏷 🔯 🖄   | Legend                                      |
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| Intensity  | Caracol pyramid top                         |
| soud <sup>RU,</sup>  |   |
| 81.00<br>72.00<br>63.00<br>54.00<br>45.00<br>36.00<br>27.00<br>18.00<br>18.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19.00<br>19 |   |
| 0.00 00:05 00:10 00:10   |   |
|  |   |
| Area deviation   |   |
| 2100.004 PX<br>1895.00   |   |
| 148.00   |   |
| 1284.00<br>1080.00   |   |
| 876.00   |   |
| 672.00<br>468.00<br>268.00   |   |
| 60.00 0004 0009 0010 0001<br>15:57 16:02 16:02   |   |

Fig.25. Charts screen in Compare mode.

We may use one more way of data processing. If you press button **Cloud**, you will get a graph presenting selected parameter with variations of its data (fig.26). The wider the cloud of dots, the higher the variation. In this case it was Xunantunich pyramidal complex. This is the same information as on a previous graph (max of Area deviation).

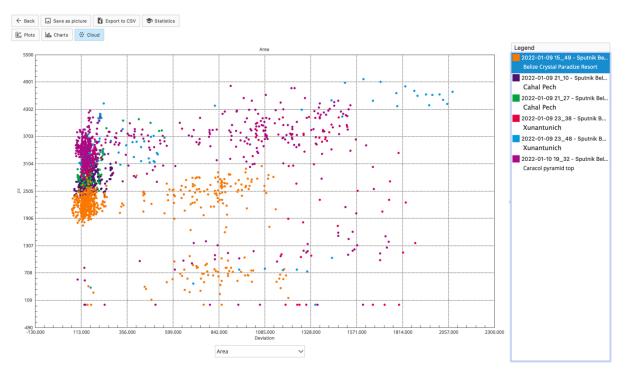
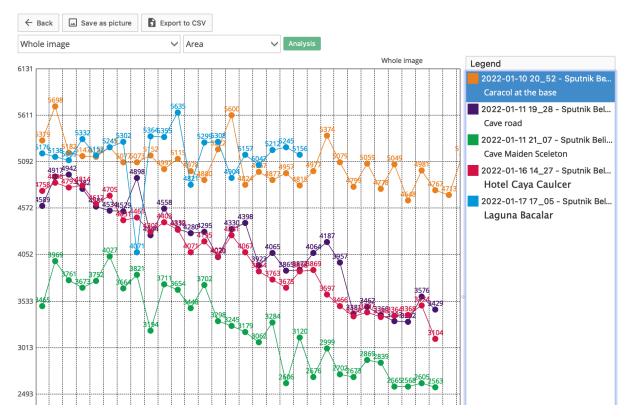
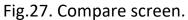


Fig.26. Cloud graph in Compare mode.

If we have taken measurements in **One Finger mode, Compare** screen looks as follows (fig.27). We see the difference in different measurements. If we press Analysis button, comparison becoming more clear (fig.28).





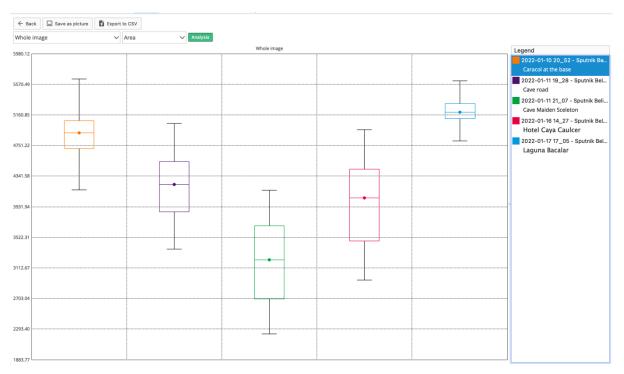


Fig.28. Compare screen in Analysis mode.

Every bar defines the standard deviation from the averaged defined by horizontal line. Whiskers show max and min. Two sets of data have statistical difference, if their averaged values are different. If the boundaries of bars intercept they are different but not so strong. At this graph data for the Cave Road and Hotel Caya Caulcer have no difference, all other data differ from each other.

## **Influence of different devices**

The principle of measurement is the same as in the case of meditation: you measure background as long as possible, and then turn on the device. Interesting method was developed by our colleagues Adolfo Rodriguez and Marcela Torres (www.sputnik.bio-well.com, www.iumab.club). They've been measuring nearby the Torus Resonator developed by a physicist Nassim Huramain in the USA. Bio-Well was running in the off-line mode from December 2017 till January 2019 practically non-stop. In a long-time measurement regular sinusoidal pattern was detected (fig. 29). It may be interpreted as harmonization of the environmental energy under the influence of Torus Resonator. Peaks corresponded to the middle of the day, but not to some particular hour.

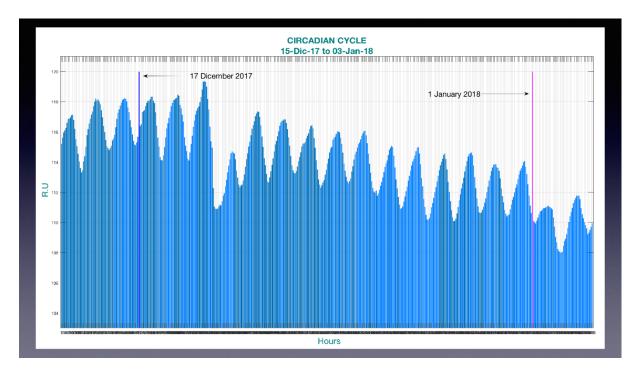


Fig.29. Circadian pattern of Energy detected nearby the Torus Resonator.

## Conclusion

This short description is not a Manual – you can find one at Bio-Well.com. All the programs have many convenient features, like saving images, Export to CSV, Reports, etc. We suggest you to use all Bio-Well programs, and then you will soon become an experienced master.

Good luck!