

## RESEARCH ARTICLE

## EFFECT OF SACRED NATURAL SITES ON THE HUMAN BIOFIELD

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## ARTICLE DETAILS

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## ABSTRACT

Sacred Natural Sites (SNSs) have been traditionally associated with health benefits across cultures. This study investigated the physiological effects of SNSs visits using biofield analysis. The Gas Discharge Visualization (GDV) technique was used to do 40 measurements on 13 sites in Burgundy, France. Pre- and post-visit measurements assessed physiological stress, autonomic nervous system balance and homeostasis. Control measurements were taken at ordinary natural sites. Significant improvements were observed in three key parameters: physiological stress reduction (-12%,  $p=0.002$ ), improved autonomic nervous system balance (-26% of organs out of balance,  $p<0.001$ ), and enhanced homeostasis (-20% of organs out of norm,  $p=0.009$ ). Gender differences were noted, with men showing more pronounced responses. Sacred Natural Sites demonstrate measurable harmonizing effects on human physiology, distinct from ordinary natural environments. These findings support traditional knowledge about SNSs health benefits and suggest potential applications in preventive healthcare and site conservation strategies.

## KEYWORDS

Biofield, Sacred Natural Sites, Gender differences.

## 1. INTRODUCTION

### 1.1 Background

First a hypothesis for extremely weak electromagnetic fields of the human body (Rubik, 2002). The biofield study became a research field discovering interactions between the biofield and the multilevel electromagnetic activity of the human body (Hammerschlag et al., 2015). This activity can be categorized into 3 part, molecular-level receptors, charge flux sites, and endogenously generated electromagnetic fields (Ives et al., 2014). Applications such as biophotonics open possibilities to investigate new and existing research fields with a perspective that goes beyond differences between western science and traditional knowledge (Popp, 2008; Movaffaghi and Farsi, 2009; Mazzocchi, 2006).

Some biofield studies have been interested in sacred and unexplained phenomena and it confirms the relevance of this approach (Barsotti et al., 2023; Baldwin et al., 2014; Kushah et al., 2015). Prior studies evaluated sacred sites effects, and the numerous approaches (Therapeutic landscape, volatile organic compounds analysis, survey on well-being, heart rate, biomarkers, etc.) converge to physiological and psychological effects (Cooper et al., 2019; Ray and Ray, 2020; Mariappan et al., 2022; Yang et al., 2023; Sinclaire et al., 2024). However sacred sites are always complex environments. As was remind about green-health studies, observational research should clearly define a causal model to conclude on isolated characteristics rather than an indefinite set (Donovan et al., 2024).

Sacred Natural Sites (SNSs) is a distinguished research field. For Wild and McLeod from IUCN-World Commission on Protected Areas, sacred sites are: 'areas of special spiritual significance to peoples and communities. They may be perceived as abodes of deities and ancestral spirits; as sources of healing water and medicinal plants; places of contact with the

spiritual realm, or communication with a "more-than-human" reality; and sites of revelation and transformation' (Wild and McLeod, 2008). This definition corresponds to John Scheid and Emile Benveniste's analysis developed at Collège de France (Scheid, 2007).

Most studies about SNSs concern ecology, conservation and anthropology. Only minority are about intrinsic health effects (Cooper et al., 2019; Sinclaire et al., 2024). Publications have highlighted the greater biodiversity of SNSs, suggesting that these are indeed different environments from other natural sites (Jaganmohan et al., 2018; Kühnert et al., 2019; Ormsby, 2021). Nevertheless, there are very few studies on the physiological effects of SNSs, and moreover, SNSs effect on the biofield is still an under-explored subject.

### 1.2 Objective

While green-health studies demonstrate the positive effects of nature, they typically treat all natural environments as equivalent<sup>21,22,23</sup>. However traditional knowledge suggests that some locations are special and that some are not. This study was designed to clarify this point by comparing SNSs with ordinary natural sites. The purpose of this study was to assess SNSs effects on human biofield, which could lead to new strategies for site conservation and enhance the understanding of SNSs effects on health.

## 2. MATERIALS AND METHODS

### 2.1 Materials

The device used was a Bio-Well 3.0 camera. The GDV process was invented in the mid-1990s and has led to numerous scientific publications, particularly in the fields of medicine and psychology (Korotkov, 2018; Yakovleva et al., 2016; Deepeshwar et al., 2020). It is a development from the Kirilian effect. The reproducibility of the technique is evaluated at

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more than 90% by (Russo et al., 2001; Korotkov, 2011).

Biofield studies often recommend the use of the GDV technique (Muehsam et al., 2015; Ross, 2019). Many qualitative publications were done in the 1970s, UCLA University of California Los Angeles was a pioneer in this field (Kirlan and Kirlan, 1961; Moss, 1979; Rubik et al., 2015). Nowadays, advances in computer technology and electronics make quantitative measurements possible. Biophotonics with the GDV process is used in approximately seventy countries, it is a scientific discipline taught in universities and the GDV is a medical device in Russia.

**2.2 The Studied Sites**

All sites are located in Burgundy, France, and most are well known at least locally. The subjects had to walk a few kilometers to access the studied sites. Eleven SNSs were selected according to the criteria outlined in the introduction. Two additional ordinary natural sites were used for the control group.

**2.3 Measured Parameters**

Following integrative medicine precepts, health parameters have been selected (Galitzer, 2002; Wisneski and Anderson, 2004; Korotkov, 2017):

- Physiological stress.

This is an index ranging from 0 to 10 to assess physiological stress. It is optimal between 2 and 3.

- The balance of the autonomic nervous system.

This is evaluated through the energy balance of organs (Korotkov et al., 2018 ; Drozdovski et al., 2012).

- Homeostasis.

An evaluation of the homeostasis variation is obtained through the variation of the number of non-standard parameters. Measurements are calibrated, so results can be compared with a norm provided by the device supplier Bio-Well. The capacity to bring back parameters to the norm is linked to better homeostasis.

**2.4 Hypothesis**

First hypothesis: a decrease in the physiologic stress index is expected to confirm the stress reduction.

Second hypothesis: a decrease in the number of organs out of balance is expected to confirm the autonomic nervous system balance improvement.

Third hypothesis: a decrease in the number of organs out of norm is expected to confirm variations linked to improved homeostasis.

**2.5 Study Design**

The protocol is based on the differences between measurements taken before SNSs visits, on the way, on ordinary natural sites, and measurements taken at the end of visits still on sacred sites. The data distribution permitted the use of a t-test paired sample.

Subjects aged between 33 and 83 took part in this study. Visits were performed with groups of 1 to 5 subjects to collect data on 13 sites: 15 measurements of women and 25 measurements of men, including the control group.

**3. RESULTS**

**3.1 Control Group**

Table 1: Control group			
Control group 4 persons Parameters	Average pre-visit (std dev)	Average post-visit (std dev)	variation %
Physiological stress (no unit)	3,09 (1,01)	3,21 (1,24)	+4%
Number of organs and systems out of balance	8 (6,16)	7,75 (5,38)	-3%
Number of organs and systems out of norm	7,25 (5,91)	9,50 (7,51)	+31%

The control group attests there is no significant variation on 2 out of 3 parameters. The parameter linked to homeostasis follows a possible trend opposite to the effect of SNSs.

**3.2 Sacred Natural Sites Analysis**

Table 2: t-test					
Test group 36persons Parameters	Average pre-visit (std dev)	Average post-visit (std dev)	Variation %	t-test	p
Physiological stress (no unit)	3,57 (0,92)	3,15 (0,58)	-12 %	3,40	0,002
Number of organs and systems out of balance	10,37 (4,83)	7,71 (3,10)	-26 %	4,23	< 0,001
Number of organs and systems out of norm	13,31 (6,01)	10,69 (6,23)	-20 %	2,75	0,009

The first hypothesis was validated with a significant reduction of physiological stress (p=0,002).

The second hypothesis was validated with a significant decrease (p<0.001) of organs out of balance.

The third hypothesis was validated with a significant decrease (p=0.009) of organs out of norm.

**3.3 Differences Between Women and Men**

Table 3: Differences between women and men					
Parameters	Subjects with Para- sympathetic domination	Women var.	Average var.	Men var.	Subjects with Sympathetic domination
Physiological stress	-6%	-8%	-12%	-15%	-17%
Number of organs and systems out of balance	-20%	-21%	-26%	-31%	-34%
Number of organs and systems out of norm	-15%	-17%	-20%	-23%	-27%

Trends are more pronounced for men than for women.

**4. DISCUSSION**

**4.1 Effects on Homeostasis**

In control group, the number of organs and system out of norm grew by +31%. We may deduce that in group control subjects have shown a need for adaptation after visits. It can be attributed to tiredness or hunger, it is not surprising that a walk solicited regulatory process. Anyway for people who visited SNSs there is a significant opposite trend, it decreased by -20%, which means a reduction about this need for adaptation; a better homeostasis after visiting SNSs than after visiting an ordinary natural site. SNSs effects are different compared with the reported effect on a sacred artefact where energy increased for subjects (Barsotti et al., 2023). Energy variations have profiled a harmonisation effect without a global increase in energy.

**4.2 Differences Observed Between Women and Men**

GDV often show a different biofield physiology between women and men. An explanation has been proposed by (Korotkov et al., 2017). They reported that for the majority of women (75%) an autonomic balance

shifted toward predominance of the parasympathetic nervous system, whereas for men (62%), an autonomic balance shifted toward predominance of sympathetic nervous system.

Data from this study reproduced similar proportions for men (62%) and women (67%). In table 3 a verification confirmed this explanation for the differences observed. The autonomic nervous system balance seems to be the determining factor. This study show that effects are more pronounced for subjects with sympathetic domination which is an interesting track to investigate mechanisms behind the harmonization observed.

## 5. CONCLUSION

After visits to Sacred Natural Sites, physiological stress was reduced, parameters to assess homeostasis and autonomic nervous system balance were improved. The main contribution of this article has been to establish the ability of Sacred Natural Sites to harmonize people. This demonstrates a clear difference between ordinary natural sites and SNSs. This work has explained a gender effect in SNSs actions. A research subject inspired by this work is the demonstration of specific site-effects. Long-term studies and the effect of SNSs on diseases could improve the knowledge of SNSs effects on health and promote the conservation of these sites.

## CONFLICT OF INTEREST

There are no conflict of interests to declare.

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