

Bird Song and Sound Healing

I KNOW THE WAY YOU CAN GET

I know the way you can get
When you have not had a drink of Love:

Your face hardens,
Your sweet muscles cramp.
Children become concerned
About a strange look that appears in your eyes
Which even begins to worry your own mirror
And nose.

**Squirrels and birds sense your sadness
And call an important conference in a tall tree.
They decide which secret code to chant
To help your mind and soul.**

Even angels fear that brand of madness
That arrays itself against the world
And throws sharp stones and spears into
The innocent
And into one's self.

O I know the way you can get
If you have not been drinking Love:

You might rip apart
Every sentence your friends and teachers say,
Looking for hidden clauses.

You might weigh every word on a scale
Like a dead fish.

You might pull out a ruler to measure
From every angle in your darkness
The beautiful dimensions of a heart you once
Trusted.

I know the way you can get
If you have not had a drink from Love's
Hands.

That is why all the Great Ones speak of
The vital need
To keep remembering God,
So you will come to know and see Him
As being so Playful
And Wanting,
Just Wanting to help.

That is why Hafiz says:
Bring your cup near me.
For all I care about
Is quenching your thirst for freedom!

All a Sane man can ever care about
Is giving Love!

Hafiz lived from c. 1320-1389. So the concept of therapeutic animal and bird sounds for our physical, emotional, mental, and spiritual health is not new.

Birdsong as Therapy

A recent article in the Guardian, by Phoebe Weston featured musician Cosmo Sheldrake and his research and recording of bird song. Cosmo is son of the maverick biologist Rupert Sheldrake (known for his theories of morphic resonance) and Jill Purce. (Jill is a pioneer of the international sound healing movement through her rediscovery of ancient vocal techniques, the teaching of overtone chanting, the power of group chant, and the spiritual potential of the voice as a magical instrument for healing and meditation. <www.jillpurce.com>).

"Birds live on a different time axis," says 30-year-old Sheldrake. "There's a spectrum of relationships with time – we look at birds and think they're very 'other', but when you slow their song down, you get an idea of the tapestry of what they're saying and they sound strangely human. These are very subtle, integrated phrases that we miss when they're singing at their normal speed."

Perhaps Cosmo was influenced by the work of Hungarian Peter Szöke who analyzed bird song by slowing down the tape recordings to 2, 4, 8, 6 and 32 times their natural duration so they could be subject to music notation, and who also felt that slowing down increased our understanding of the complexity and potential effects of birdsong.

Journalist Phoebe Weston called Sheldrake's work "a cross between art and activism." Cosmo feels strongly that birdsong is important, and they we are losing bird and bird song diversity. This prompted her to find out more about the scientific

evidence for the effects of bird song on humans. She and another environmental reporter, Patrick Greenfield, interviewed British researchers in The Guardian Science Weekly podcast, "Why Should We Listen to Birds?" It featured Dr. Eleanor Ratcliffe, Lecturer in Environmental Psychology at University of Surrey who specializes in people's well being, happiness and stress recovery in relation to different environments. Dr. Ratcliffe is a vanguard in the restorative effects of birdsong.

"People tend to find birdsong more relaxing and more pleasant if smooth and harmonic sounding, high-pitched, fairly quiet, somewhat complex, giving something stimulating to focus on, having some order, some structure to it." Birdsong was rated more relaxing if the subject found it familiar, yet subjects in England might find an Australian bird "familiar," though probably never having heard it. Perhaps it reminded them of another song.

From an evolutionary perspective, why would birdsong be relaxing? Humans evolved in natural environments, so singing birds were probably an indicator or safety, no dangerous predators around, "all's right with the world." Also certain natural environments with bird song could have properties that help people recover their attention when its fatigued.

Dr. Ratcliffe began by interviewing 20 people and having them rate sound clips of different birds for how relaxing they were. She then tried to predict those scores based on different properties of the sound. An online survey of 200 people provided qualitative data; memories, associations and meanings linked with each sound. Interestingly, she found an association with culture, which could affect how relaxing they found the sound. For example, the comment, "In my country this bird has a bad association," would probably override any beneficial effects of the song.

Restorative Environments - A new field of research in the UK, Europe and America looks at what different types or aspects of nature might be restorative.

Ratcliffe uses birdsong as a lens to understand more about the psychological experience of positive sounds, opening up restorative environments to more diverse sensory understanding. Focusing on the visual aspects of nature has excluded people who cannot experience their environment through vision. Sounds convey a lot of meaning and value about the environment to people.

Prescribing nature is starting to become a part of mainstream healthcare. In July 2020, the UK government announced appropriations to examine how to scale up "green prescriptions" in communities hardest hit by the pandemic. Natural England, the UK govt's wildlife body, reckons the NHS could save more than 2 billion British Pounds if everyone in England had access to good quality greenspace used alongside medication. Green prescriptions are also called "ecotherapy," or "nature-prescriptions."

Another researcher, Dr. William Bird, a GP and CEO of the organization, "Intelligent Healthset," set up "Green Gyms" working with Natural England to help develop a natural health system. In 2010 Dr. Bird received an award for his contribution to

health and physical activity. Dr. Bird says green space needs to be close to where you live. Even a window box or local park can be green space.

Here are his suggestions for increasing the beneficial effects of nature in our lives.

Work – If people work on behalf of nature, they feel productive and learn a lot while being close to nature.

Exercise - Mental health improves significantly after the “green gym.” The effect is about equal to an antidepressant, when a person exercises outdoors in nature. Activity in general reduces inflammation, which can cause problems like diabetes, heart disease, arthritis, dementia, depression, and anxiety. Inflammation is reduced by stress reduction, and “green” exercise reduces stress far better than indoor exercise.

In last 5-10 years he is seeing an explosion of medical evidence for the beneficial effects of being in nature. Pet scans can see which areas of the brain are affected. Researchers also use mobile stress test for monitoring heart rate, cortisol levels and sweat. Results show that nature has a strong impact in restoring the brain.

Matilda Van der Bosch, another prominent researcher in the field, co-authored the Oxford Textbook on Nature and Public health w/ Dr. Bird. One of the studies in the book showed that subjects felt strongly relaxed and good with trees and bird song, but when birdsong was removed, the subjects had higher stress levels.

Hospital studies demonstrate that birdsong accelerated post-operative recovery, with less need for painkillers.

Dr. Bird admitted that a lot of education is needed for both patients and doctors to be convinced of the efficacy of prescribing nature. People tend to doubt its value, and believe the British Health Service is just trying to save money. He believes the day is coming when nature therapy is prescribed before going to medication. For example, a drop in blood pressure with regular exposure to nature may reduce the need for medication. They are complementary.

Bird and others are working on guidelines to embed nature therapy in the National Health Service. The guidelines will address what kind of nature, which diseases and which people will benefit the most, and possible side effects.

“In 5 or 10 years, we’ll have nature guidelines at the NHS as mainstream. “

For people experiencing winter blues, Dr. Bird suggests taking a daily walk, exploring your area, watching, noticing.

“It really has an impact on your health, probably better than most of the medicines I give out every day.”

An article in Psychology today, “The Birds and the Trees: Plant a Tree, Improve Your Soundscaping” states that bird sounds engage the human brain as well as the bird brain, conveying information about our surroundings. For humans, bird sounds foster a connection with nature. Research shows the bird sounds may provoke

effortless attention, restore alertness, reduce [stress](#), decrease hostility, and promote a sense of well-being. The author suggests planting trees that attract your favorite songsters.

Circadian Rhythms and Health - Author Linda Andrews also states that the dawn chorus of birdsong provides humans with a cue about time of day, some [evidence](#) suggesting that birdsong may affect human circadian rhythms. It may be one of the external cues that help synchronize the body's internal clock to the 24-hour day. This synchronization, in turn, may have positive effects on sleep and mood. One study showed that musically enhanced bird song could assist in stabilizing circadian rhythms where light is improperly timed or insufficient, or with people, especially elders, who are intolerant of bright light, and are kept in low lighted conditions. (Goel, 2006)

Sonic Bloom – Using Bird Song to Enhance Plant Growth

Sonic Bloom Mission Statement

To provide more bountiful, more nutritious crops that can be grown in any kind of soil and under the most adverse conditions for the purpose of improving the life of people in emerging countries, particularly improving the mental acuity and increasing the ability to learn among the youth in those countries.

Dan Carlson, founder of the plant growing system known as “Sonic Bloom,” spent a lifetime learning how to grow organic food with maximum plant growth and yield. His story begins with a tragedy he witnessed as a soldier in the Korean War. He watched in horror a starving Korean mother place the legs of one of her children under the wheels of a truck, crippling the child to qualify for a family-saving food subsidy.

Returning to the U.S. he spent years studying horticulture and plant physiology, intent on ending world hunger. His dedication resulted in the creation of Sonic Bloom, a proprietary audio, organic nutrient plant growing process to assist the organic farm, particularly with low water availability and poor soil conditions.

Dan stumbled on a recording, “Growing Plants Successfully in the Home,” devised by George Milstein, a retired dentist and horticulturist to grow prize-winning bromeliads. Milstein had been inspired by a study in *The Secret Life of Plants*, where researchers at the University of Ottawa were able to increase wheat harvests with pure sound frequencies. Though Carlson did not make the connection with bird song, he managed to hit upon a combination of frequencies and harmonics much like the predawn bird concerts that continue past sunup into morning. He wanted to embed these sounds into popular music that could be included in kits for growing plants indoors or in small backyard gardens.

Dan enlisted a music teacher, Michael Holtz, and it was he, not Carlson, who made the connection with bird song. The fascinating story of Holtz’s exploration of sound and birdsong is fully described in *Secrets of the Soil*, by Peter Tompkins and Christopher Bird.

"Within seconds of hearing Carlson's "cricket chirping" oscillating out of a speaker, Holtz realized its pitch was consonant with the early-morning treetop concert of birds outside his bedroom window."

"Soon Holtz came to see where the various predominating pitches in birdsongs could be calibrated by reference points on the musical scale and their harmonics. Dan Carlson had instinctively hit upon frequencies that were the ideal electronic analogues for a bird choir. "It was thrilling," said Holtz, "to make that connection. I began to see that God had created the birds for more than just freely flying about and warbling. Their very singing must somehow be intimately linked to the mysteries of seed germination and plant growth."

Holtz wanted to understand exactly what the sounds were oscillating in the plants. Looking at drawings of a cell, Holtz discovered subcellular structures within the cytoplasm known as mitochondria, the shape of which, according to Holtz, suggests the form of the sound box of a violin or viola!

"I found it more than of passing interest that the resonant frequency of mitochondria is 25 cps, which, if interpolated upward gets to a harmonic of 5,000 cps, the same frequency used by Dr. Pearl Weinberger to grow winter wheat two and a half times larger than normal with four times the average number of shoots, as reported in Dorothy Retallack's *The Sound of Music and Plants*. It could be that the frequencies he used vibrated not only the mitochondria in the wheat seeds, but the water surrounding them, increasing the surface tension and thus enhancing penetrability through the cell wall."

Photomicrographs also show plant stomata opening wider to Carlson's frequencies. The stomata allow the plant to breathe, taking in CO₂ and breathing out oxygen, and also to take in morning dew. Dan then augmented the plants nutrition by spraying the leaves with nutrients, and spent years developing formulas to maximize plant growth and yield. Over time, the sonic treatment also increased numbers and size of stomata in the plants, resulting in a greatly increased absorption rate of moisture and nutrients - an effect that is quickly reflected in root growth, seed-germination, plant growth, and yield.

Here are Carlson's comments at a trade show many years into his Sonic Bloom business:

"What I've tried all along to do with the sonic part of Sonic Bloom . . . is to stay within boundaries set by nature. I think there are certain cosmic forces which can account, however 'unscientifically,' for much of our success. Properly adapted they will get plants to grow better, perhaps get cows to give more milk, or even inspire people to relate to one another more harmoniously. There's plenty of evidence that various frequencies of both sound and color can be curative . . . I get over a hundred calls a year, from people experimenting with my broadcasts. Most of them say that when the sound is turned on, plants actually turn away from the sun to grow toward the speakers! Always! To me that means the sound is as important to plants as whatever we understand about photosynthesis."

Scientist and philosopher Rudolph Steiner spoke about the relationship between birds and plants much earlier. In 1924, a group of farmers concerned about the future of agriculture requested the assistance of scientist and philosopher Rudolph Steiner. He responded with a series of lectures on an ecological and sustainable approach to agriculture that increased soil fertility without the use of chemical fertilizers and pesticides. Those lectures formed the basis for what is now known as biodynamic agriculture, now practiced widely throughout the world.

“Plants can only be understood when considered in connection with all that is circling, weaving, and living around them. In spring and autumn, when swallows produce vibrations as they flock in a body of air, causing currents with their wing beats, these and birdsong, have a powerful effect on the flowering and fruiting of plants. Remove the winged creatures, Steiner warns, and there would be a stunting of vegetation.”

In the book *A Pilgrimage with the Animals*, Dr. Lascelles introduces us to the subtle nature of animals, and points to our failure to understand them as spiritual beings having a role and function in the labyrinth of life.

“I want you to think of what you call the dawn chorus of the birds, that strange moment of nature just before the morning light seeps through. Suddenly, as you may have noticed if you have been lying awake, every bird in the neighborhood breaks into song as though obeying some signal. For a time, while it is dark, the air is filled with orchestrated sound – the triumphant, challenging and positive sound of birds in song.”

“Now, why is this so? What prompts the birds into such a performance unequalled at any other time during the day? . . . This massed heralding in of the day awakens the earth in a magical way. Yes, actually awakens the earth as though God had arranged it, as indeed He has.”

Dan Carlson was able to see his mission to end hunger take off. He led a six-year program in Indonesia, with government agronomists, eight universities, and commercial growers. They grew productive yields of rice, cocoa, palm oil, tea, coffee, corn, soybeans, tobacco, vegetables, orchards and ginger.

During a drought in the Sudan, where Sonic Bloom was used, the treated plants grew productive plants at 130 degrees daytime temperatures with 2 inches of annual rainfall. Wherever Sonic Bloom wasn't used, the crops failed.

The Sonic Bloom system produces greater yields, higher nutrient levels, shorter growth cycles and greater shelf life for produce and has been shown to generate at least three times the revenue over the additional cost of the process.

His wife allowed him to try Sonic Bloom on her passion plant, normally growing to about 18 inches. The more he treated it, the more it grew. When the Guinness Book of World Records came to measure it, the plant was over 1300 feet long!

Dan's son, Dan Carlson, Jr., continued the Sonic Bloom business after his father's death. Sound CDs and plant nutrient products are available on the Sonic Bloom website. One of the CDs is called "Whistling Music To Grow By."

"The Whistling CD is also embedded with Sonic Bloom frequency, a combination of Birdsong and the talented Marge Carlson. 'Whistling is the universal language and good for the soul,' says **Marge Carlson**, also known professionally as "**America's Sweetheart of Bird Song**." She has been whistling--duplicating the first music ever heard by human ears--professionally, as a concert performer and recording artist, since the age of 10. She's whistled for Johnny Carson, and last April, she whistled for 160,000 at the Hoosier Dome in Indianapolis." LA Times 1991.

<http://dancarlsonsonicbloom.com/Home.html>

<https://originalsonicbloom.com/>

Soundscape Ecology

"Soundscaping" is another new field involving the use of bird song. The Journal of Applied Sciences recently featured a special issue "**Soundscape in Architecture and Urban Planning**." Topics in the issue cover all aspects of the use of sound in architecture and urban planning, including studies on auralization, urban noise control, urban sound quality, the use of novel acoustic materials in architecture, or the use of virtual or augmented reality in soundscape, environmental acoustics, noise control, and urban acoustic design.

Researchers have found that bird sound can mitigate the effects of more stressful sounds, like traffic and machines, as well as the stressful effects of crowding.

Bird Song and the 7th Chakra

In our class, "The Sound of Chakras," we learned that bird song could be an appropriate sound for balancing or healing the 7th Chakra. Our instructor, David Gibson, characterized the 7th Chakra as the connection to the pineal gland, the Divine, and bliss!

Interestingly enough, there is quite a literature on birds and our connection to the Divine.

In his essay, "The Language of the Birds," René Guénon says there is often mention, in diverse traditions of "the language of the birds," – a designation that is clearly symbolic. Like Siegfried in the Nordic legend, victory over the dragon made "the language of the birds" instantly understandable. According to Guénon, that is about

the conquest of immortality, guarded by the dragon. What I believe Guénon means is a conquest over death, or at least the fear of death, and a deep understanding and perhaps experience of immortality, or other realms. In this conquest of our limited 3-D understanding, an initiation, really, communication is established with higher states of being.” Guénon points out that birds are frequently taken as symbols of the angels, that is, of higher states.

In ancient wisdom traditions, recitations of rhythmic hymns, Mantras in the Hindu tradition, Dikr in the Islamic tradition, are protective and important in attaining these higher states.

“The repetition of these formulas aims at producing a harmonization of the different elements of the being, and at causing vibrations which, by their repercussion throughout the immense hierarchy of states, are capable of opening up a communication with the higher states.”

William Henry in his book *The Language of the Birds* says the term is one of several names given to the secret hermetic language of esotericism.

“Ever since humankind began to think in spiritual terms, birds have symbolized spiritual states, angels, and higher forms of being.”

Henry explores this theme in a number of wisdom traditions.

“In Greek, the word for bird is a synonym for messages from Heaven.”

“In Taoism, birds carry the same meaning, while the Immortals take on the shapes of birds to signify their ‘lightness’ and their freedom from earthly ‘heaviness.’”

“Solomon declared, ‘O mankind! Lo, we have been taught the Language of the Birds and have been given abundance of all things. . . .’

The Egyptian gods were frequently depicted as bird-men, most especially Thoth, who brought the Emerald Tablets from his life in Atlantis, where he was granted immortality, and the ability to travel back and forth between the underworld, or realm of the dead and physical reality.

Personal Story of Bird Song and Divine Connection

Last summer, I found myself caught in yet another severe bout of depression, anxiety and despair. I’d spent way too much time there in the last several years, even before covid, fighting inner battles nearly every morning to meet the day. I felt exhausted by life. Joy was hard to find, and I was terrified by imaginary thoughts of a disastrous and hopeless future. I knew I needed a positive image of the future, a life with more joy, but was struggling to get there. I went outside to try and soothe myself by relaxing on the chaise lounge with a book. I had that sickening feeling in

my gut and a clenching in my heart that characterizes these hell realms I had become familiar with. When it gets bad enough, the mental and emotional pain shows up as physical pain. I found myself begging for help, to know there was something out there that cares. "Please, I need a sign," I prayed to I didn't know who. "I need to know I'm not alone. I need help."

I looked around and waited a few moments. It was a warm, quiet afternoon. I put my head back into my book.

Quite suddenly, a bird song cascaded down over me from the pergola above. I was amazed to hear an unusually loud, melodic and protracted song of a house finch, coming from just overhead, about as close as a bird could get to me on the pergola. It was midsummer. I hadn't heard a house finch singing in weeks, and could not remember ever having heard one singing so close to the house on the pergola. I was marveling at how beautiful and unusual it was, when I remembered. I had asked for a sign. Here it was. Something had heard me, and somehow communicated with the voice of this little bird.

It was a mile marker in the restoration of my faith, of me finding my way back to a connection with Source. So did the birdsong help heal and reconnect my 7th chakra?

Here is a link to the sound of House Finch. The song of this species varies widely over its range, but there are songs in this group from California that are quite similar to our Montana house finches.

<https://ebird.org/species/houfin>

And here are links on the Cornell Lab of Ornithology "ebird" site, to two of my other favorite songsters, the Rock Wren and Mountain Bluebird, whose songs are magical to me.

<https://ebird.org/species/rocwre>

<https://ebird.org/species/moublu>

Let me end with the Hafiz' poem where I began, where the squirrels and birds decided "which secret code to chant to help your mind and soul. "

*I know the way you can get
If you have not had a drink from Love's
Hands.*

*That is why all the Great Ones speak of
The vital need
To keep remembering God,
So you will come to know and see Him*

*As being so Playful
And Wanting,
Just Wanting to help.*

Addendum: Finally, I can't close this project without a pitch on behalf of the future of birds. As many of the researchers involved in this work have lamented, we are seeing massive loss of bird populations and species diversity worldwide. The Macauley Library at the Cornell Institute of Ornithology is collecting recordings of bird song from around the world, so these songs may be preserved in the event of the loss of these species and subspecies, many with unique variations of the species' song. Many of the researchers I have drawn from in this paper expressed concern about the loss of birds and what that might do to the world. In the days of Dan Carlson and Michael Holtz's study the culprit was DDT. Now banned, at least in the U.S., but perhaps even more of a threat in today's world is glyphosate, primary biocide in the popular Montasant (now Bayer) product "Roundup."

Glyphosate has in the last 20 years become widely used on the majority of conventional wheat, grain, and lentil crops just before harvesting, killing all the plants at the same time to make harvest easier. It has contaminated our entire world and affected living organisms in ways that severely damage our immune systems and create cancer. The evidence has become so convincing that Monsanto has had to pay damages to people who regularly used Roundup and have contracted non-Hodgkin's lymphoma. My request is that we all figure out ways to do without Roundup, embrace dandelions and lawn species diversity and eat organic. If we are to rebuild our soils and natural ecosystems, to live more in harmony with the natural world, and to enjoy the bird species diversity on this planet, we have to give up our addiction to chemical fertilizers and pesticides. And if we want healthy immune systems that can handle to billions of viruses we are exposed to all the time, we have to wean ourselves from these poisons.

Thank you.

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Musical Duo OLOX is the creative union between Andreas Veranyan-Urumidis and Zarina Kopyrina which is a fusion of heart rhythms and electronic sounds mixed with ethnic songs from the native Sakha people from Siberia characterized by animal, bird and deep nature vocals. ZARINA was born in a small village in Sakha (arctic Siberia) and was three years old when she started to learn the language of the birds and animals. AMAZING NATURE SOUNDS BY HUMAN VOICE!

<https://www.youtube.com/watch?v=xAVoNV1cvXE>