

## **Creative Spaces: Neurobiology, Nature and the Senses**

By Pamela J.P. Donison

No matter what your area of practice, we are all *problem-solvers and dispute resolution professionals, engaged in the work of creating solutions that help people live more harmoniously*. That “dispute resolution” may take the form of trial or contract, negotiation or arbitration, but the common factor in every situation is a client who wants to solve a problem that he can’t resolve on his own. Sometimes the client’s own brain is getting in the way of problem-solving because he (or she) is flooded with stress hormones and is living in “fight or flight” mode all the time.

Every aspect of our office and meeting space can impact the outcome of this task of problem-solving, yet attorneys routinely ignore the sensory components necessary for effective dispute resolution. We are creatures of nature and understanding biophilia can play an important role in calming frazzled clients (and you!) even if you don’t have a room with a view.

### **Sensory Overload**

We are bombarded every day with unnatural smells, loud and repetitive sounds, views of the inside of a cubicle or an urban parking lot, and a dearth of natural scenes. One of our goals as problem-solvers is to reduce the mammalian stress responses in clients so that they can make good decisions. The primary area of the brain that deals with stress is the limbic system, which emerged with the evolution of our warm-blooded relatives and marked the beginning of social cooperation in the animal kingdom. Whenever you perceive a threat, whether real or imagined, your limbic system immediately responds via your autonomic nervous system. The trouble is that we get inaccurate signals (it’s just a car horn, not an elephant bearing down on you) and some stress hormones remain active in the brain for too long, damaging cells in the hippocampus, the area of your brain needed for memory and learning.

Now think about the life of a lawyer. We are chronically over-worked, tend to live less-than-balanced lifestyles in a very harsh professional climate of high conflict and the result is too often a litany of stress-related disorders. If you could redirect your energy for problem-solving and reduce those “fight or flight” reactions, you and your clients would be more relaxed, productive, and healthy.

### **What’s That Smell?**

The scent of citrus blossoms can lift our mood and energize us, while calming emotions. The scent of eucalyptus is invigorating and enhances concentration. Smell is the most primal sense, going straight to our mammalian brain to help us identify food, mates, and predators, and provides sensual pleasure (think fresh-brewed coffee or the desert after a rain) as well as

warnings of danger (what's burning?). Researchers at the Universities of Vienna and Berlin found that sesquiterpenes in the essential oils of sandalwood and frankincense can increase levels of oxygen in the brain as much as 28 percent. An increase in brain oxygen can improve the level of activity in the hypothalamus and limbic systems of the brain, dramatically affecting emotions, learning, and attitude. Increased oxygen in the brain also improves the immune system, hormone balance, and energy levels.<sup>i</sup>

### **Do You See What I See?**

“The term ‘biophilia’ literally means ‘love of life or living systems.’ It was first used by Erich Fromm to describe a psychological orientation of being attracted to all that is alive and vital.”<sup>ii</sup> We instinctively seek out the natural world as a refuge and a method of healing both body and soul, and it turns out that science supports our gravitational pull towards the natural world during times of emotional or physical strain. According to Ornstein and Sobel (1990)<sup>iii</sup>, “Flooding our brains with rich natural visual stimulation helps us recover from surgery, tolerate pain, manage stress, and attain wellbeing.” They also state, “Pictures of ponds, streams, trees, and other vegetation produce lower levels of arousal and higher alpha brain waves, a brain state associated with wakeful relaxation, than pictures of treeless urban streets.” The love of a natural view is more than just a whim – we are hardwired to respond to the calming forces of nature.

In the mid-80s, Roger S. Ulrich, Ph.D., Professor of Architecture at Texas A&M University and a faculty fellow of the Center for Health Systems & Design, conducted research on patients’ response to a room with a view and discovered that patients with a view of trees spent less time in the hospital, were less upset, required less pain medication and had fewer postoperative complications. Ulrich has also found that artwork depicting views of nature reduced anxiety and, subsequently, lower doses of pain medication were needed for those viewing art depicting nature.

### **Get an Ear Full**

Sudden and loud sound alerts and activates the stress response – a biological alarm that affects the brain in powerful ways. “But it’s not just loud or sudden noises that can provoke a stress response. Chronic low-level noise also negatively influences the brain and behavior. Whether from the road or in the office, low-intensity noise has a subtle yet insidious effect on our health and well-being.”<sup>iv</sup>

According to Dr. Alice H. Suter, audiologist at the National Institute for Occupational Safety and Health, “Included in noise-related problems are high blood pressure, peptic ulcers, cardiovascular deaths, strokes, suicides, degradation of the immune system, and impairment of

learning. Noise is also associated with an increase in aggression and a decrease in cooperation.” (Id.) The hum of air conditioners and computers, the elevator “ding,” traffic rumbles, and all the other noises of our lives can contribute to stress and make us (and our clients) anxious and uncooperative and we may not even know why!

### **Little Fixes**

Why is this relevant to your law practice? Because whether you realize it or not you are a healer ... a healer of disputes and problems. As such, you should use all of the senses to create the very best outcome for your clients. If your health is also enhanced along the way, all the better!

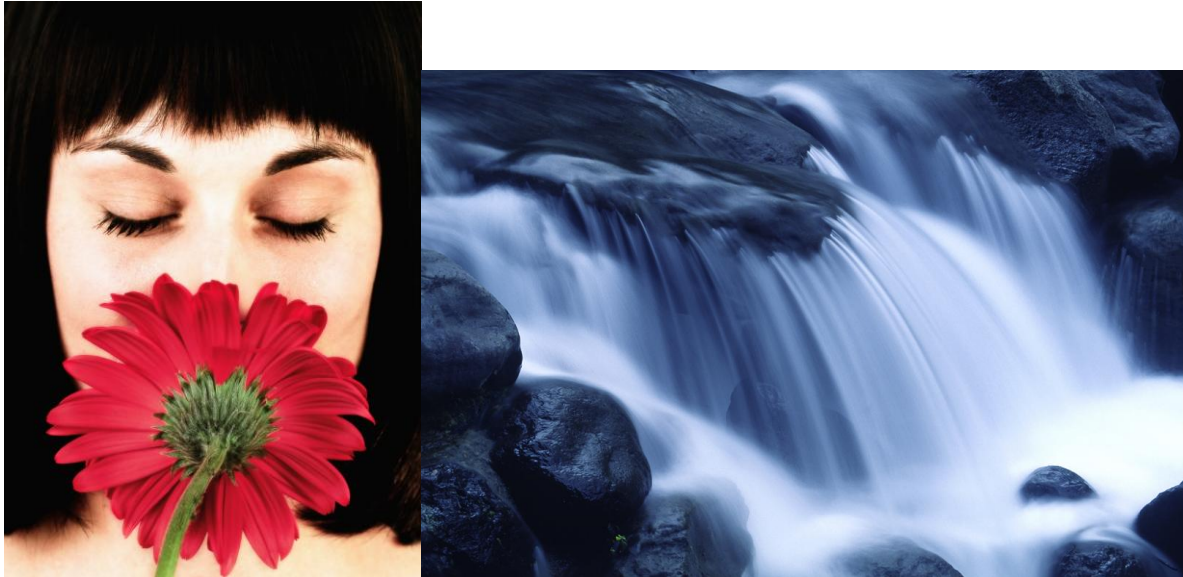
Lucky for us, incorporating natural elements to create the “biophilia effect” doesn’t require actual outdoor environments, which is good because it’s hard to get the fax machine to work properly in the rain. Imagery of nature – whether the view from your window or a photograph -- is enough to produce the effect. By using natural elements and recreating a “view” with photos or art, you can enhance your office and meeting space to create the calm, soothing environment necessary to good decision making.

We are attracted to the sound of water: trickling fountains, babbling brooks, and pounding waves. Places of relaxation and renewal almost always include an element of water and it’s a simple matter to introduce a gurgling fountain into your lobby, office, or meeting space. Not only does the sound of the water mask the hum of everyday life (like traffic noise), it mimics the sounds of nature and can have a profoundly calming effect.

An inexpensive aromatherapy diffuser can calm and relax you and your clients prior to meetings, allowing everyone to be more productive and “on task,” rather than committing important brain resources to stress reactions. Scenting our space with essential oils can be a powerful, but subtle way to stay calm and focused. Try using a small diffuser and a popular blend like “Chill Pill” or “Energize” to set the mood in your office to relax and get some work done!

No matter what elements you employ, take the time to look around your office and enhance your outcomes by promoting a sense of calm well-being for the sake of your clients, staff, and – most importantly – you.

### **OPTIONAL ARTWORK**



### **About Pamela Donison:**

Following a 15-year career in journalism and book publishing, Pamela attended the University of Arizona James E. Rogers College of Law, graduating in 1999. After a few too many high conflict litigation cases, Pamela created Donison Law Firm, PLLC in 2005, with an emphasis on out-of-court solutions, including arbitration, mediation, collaborative law, and negotiated settlements. Pamela has an undergraduate degree in Business Management which she uses to assist clients in Double Divorce.

Pamela is a Judge Pro Tem and Mediator for Maricopa County Superior Court. She is founder of Arizona Collaborative Colleagues, immediate past president of the Arizona Women Lawyers Association, on the board of directors for the Arizona Chapter of the Association for Conflict Resolution, arbitrator for the State Bar and the State of Arizona Personnel Board, and is an active member of a number of other professional organizations.

When she's not changing the world, Pamela is a wife and mother, an award-winning photographer, active blogger, and mentor to other women entrepreneurs.

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<sup>i</sup> William, Rose Marie, (April 1, 2004) Fragrance Alters Mood and Brain Chemistry: Health Risks and Environmental Issues, Townsend Letter for Doctors and Patients.

<sup>ii</sup> [http://en.wikipedia.org/wiki/Biophilia\\_hypothesis](http://en.wikipedia.org/wiki/Biophilia_hypothesis)

<sup>iii</sup> Ornstein, Robert E., Sobel, David, M.D., Healthy Pleasures (1990) DeCapo Press

<sup>iv</sup> <http://www.fi.edu/learn/brain/stress.html>