

Reading Group Guide

NATIONAL BESTSELLER

“A persuasive case for water’s healing power.” —Elle

WALLACE J. NICHOLS

FOREWORD BY CÉLINE COUSTEAU

BLUE MIND

The Surprising Science That Shows
How Being Near, In, On, or Under Water
Can Make You Happier, Healthier,
More Connected, and Better at What You Do

GUIDE
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INSIDE



Go Deep: A Readers' Guide to *Blue Mind*

by Jamie K. Reaser

“Blue Mind is, deep down, about human curiosity, knowing ourselves more and better.”

— CÉLINE COUSTEAU

I've twice had the honor of being in the audience while Wallace J. Nichols (“J”) spoke on the topic of *Blue Mind*. The first time was in 2013, at London's Royal Geographical Society, when he joined two other EarthWatch lecture series panelists in exploring “Why Emotion Matters in Conservation Science.” The second opportunity occurred in the fall of 2014, when he addressed students and faculty in the University of Virginia School of Architecture. My impression of him was the same on both occasions: this is a man in love.

It would be hard to say exactly what J is in love with—the list might be quite long. Stories about his two daughters, wife, and father will cause tears to well up in his eyes. Watch him while he talks about sea turtles or the people with whom he

has shared a career in sea turtle conservation and you'll notice that his voice softens, his cheeks flush, and his throat constricts. His heart is choosing the words. And then, there is water—everything about water. To J, water is muse, spiritual teacher, and refuge.

J is not your average scientist. He is a wayfarer, a captain of the Earth Ship, charting the way for us to become more fully human by reclaiming and celebrating our relationship with water, the element in which our lives took form.

Blue Mind: The Surprising Science That Shows How Being Near, In, On, or Under Water Can Make You Happier, Healthier, More Connected, and Better at What You Do is more impassioned missive to humanity than technical treatise on the linkage between hydrogen and hydroxyl ions. J draws on recent scientific findings to explain the impacts that proximity to water can have on human cognition and physiology, including a sense of ease and greater connection with other people and the natural world. His personal stories—punctuated with wonderment and awe—inspire the reader to reflect on the depth of his or her own relationship with water.

On every page, J beckons: “Come in, the water is fine.” He hopes that we will release our pathological grip on the shoreline. He hopes we will remember that we are water creatures (the average adult body is 50–65 percent water) and engage in a relationship with water that helps heal our personal and collective ills—the ailments of Western culture that result in toxification of this water planet.

Some 72 percent of the Earth is covered in water. Water-quality studies indicate that at least one-third of the freshwater

bodies in the United States are polluted, and every year at least one-quarter of our beaches are closed due to pollution. Worldwide, approximately 50 percent of the groundwater is not suitable for consumption. Every minute, two to three children die of a water-borne disease. Falling in love with water is a matter of survival.

And fall in love we should. To have a Blue Mind is to have an awakened heart. *Blue Mind* has inspired not just new ways of thinking about water, but also new ways of feeling toward and acting on behalf of water. *Blue Mind* has also pulled scientists in the fast-growing field of neuroconservation into a new wave of research on topics such as “the brain on water.” I expect that the findings will leave us in awe.

Some scientists might think that J has lost his marbles; being openly emotional about one’s research topic is often considered “unprofessional.” J, however, gives his marbles away freely. Blue marbles are J’s hallmark. Meet him and you are likely to walk away with an iridescent deep-blue glass orb. Look into it. Begin to reimagine the possible for water, for humans, for humanity.

What’s your relationship with water? What could it become? Curious? This reader’s guide is designed to help you move from the shoreline into deeper waters. Below I offer chapter-by-chapter questions and activities to enable you to explore how you think and feel about water. Many of the questions are drawn from readers like yourself—people who want to care more and do more for water.

Ready? Jump in. Then create ripples by sharing your responses to the questions and activities through social media (use the #bluemind hashtag) and by encouraging your friends

and colleagues to get a Blue Mind. As J dives even further below the surface, you can follow his work by going to his website, wallacejnichols.org.

May you come to know yourself more and better.

Jamie K. Reaser has worked around the world as a conservation ecologist, environmental negotiator, trainer in applied Neurolinguistic Programming (NLP), and wilderness rites-of-passage guide. She is the author of several books, most recently, *Winter: Reflections by Snowlight*. She lives in the Blue Ridge Mountains of Virginia. Portions of this essay were adapted from a feature on J and *Blue Mind* that appeared in *The Wayfarer*, volume 3, issue 4, Winter 2014.

Questions and activities for reading groups

Foreword and Preface

Marine explorer and conservationist Jacques-Yves Cousteau observed that “people protect what they love.” What do you think he meant by this? In what ways does love motivate you? What are you protective of?

Céline Cousteau and J agree that it is time to “explain the magic.” What magical experiences have you had in or near water? How do you explain what happened? Give at least two examples of how scientific explanations of human experience have generated changes in how we live and understand our world.

J published *Blue Mind* in 2014. How might the book be different if it were written twenty years earlier? Fifty years earlier? How might a version of *Blue Mind* written fifty years from now differ from the original?

Describe your own life story in terms of a series of encounters with water. How might your life have been different in the absence of water? Consider the lives of people who inhabit parts of the world where water is a scarce or highly polluted resource.

Go Deeper: Share the story of your relationship with water

through images and/or sound. Post it online and tag it #bluemind. Be sure to include love.

Chapter 1: Why Do We Love Water So Much?

J has had a long love affair with water. What elements of the other-than-human world have you courted and/or been courted by? When did you first encounter this beloved? Who were you with and what happened? How has this experience made you the person you are today?

Consider the significant moments in human lives that traditionally involve water. What is water's role at these times? Is it a literal or a metaphoric one? If metaphoric, what does water represent and how does this representation change across cultures? Why?

Think of someone who has a strong fear or dislike of water. Explore the probable sources of these emotions. What does the aversion to water prevent this person from experiencing? How might we do a better job at inviting people to "jump in"?

Go Deeper: J shares lines from a poem by Lisa Starr in which she writes, "Go see how it's been preparing forever for today." Write a poem about how water has been preparing forever for today for you.

Chapter 2: Water and the Brain: Neuroscience and Blue Mind

About the brain and the ocean, David Poeppel is quoted as saying, "We're drawn to their mysteries . . . we strive to find a

language to describe them.” What mysteries of the universe are you drawn to? What language do you use to describe them? Intellectual? Emotional?

What do you know about the functioning of your own brain? How has neuroscience influenced your life? What insights can neuroscience offer about your love affair with the other-than-human world (your “water”)?

“The brain on water” is new as a topic of neuroscientific investigation. Given the intimate relationship that humans have with water, consider why neuroscientists did not focus on water until recently. Why do you think topics such as music, food, and meditation have garnered their attention before water?

Monitoring your brain function is likely to become as simple and common as monitoring your heart rate. What kind of information would you want to have? How would you use this information? If everyone could have this kind of information, how might the world change? What are your hopes? What are your concerns? How might this relate to water?

Go Deeper: Pick a topic that you are passionate about. View talks related to neuroscience on TED.com. Make a list of the insights that these talks provide with regard to the topic you chose. Explore the relationship between your brain and your heart in determining what you are passionate about and how you live these passions into the world.

Chapter 3: The Water Premium

J starts this chapter by describing the people he encountered while traveling along the coastal trail from Oregon to Mexico. What emotion did these people have in common? How do

you feel when standing at the edge of a body of water? What expressions have you noticed on the faces of other people when they are near water? How does this differ depending on the activity you and they are engaged in?

People are willing to pay a premium to live or recreate near water. How does this information explain our challenge in protecting coastlines and other waterfronts? How could we use this observation to facilitate the restoration and protection of oceans and waterways?

Richard Louv writes that “sustainable happiness is...found in our relationship with place.” What is your “sweet spot” relative to water? Is there a specific body of water that you are drawn to? Is it natural or human-made? Do you prefer to be near, in, on, or under water? Why?

In what ways do people use art (photographs, paintings, film, music, etc.) in order to be close to water? Can something that represents water have the same emotional impact as actual water? Why or why not? How have you brought water into your life in this way? How much were you willing to pay to do so?

Go Deeper: Visit a real-estate website (e.g., zillow.com) and look at waterfront properties (aka “the front row”). Imagine living in or recreating at some of them. Consider what your experience would be like. Now look at the second row of properties. Consider what it would be like to occupy the second row rather than the front row. What economic value would you place on the differences in experience? Compare this to the actual price differential between the rows. Explore what other ways you invest or would be wise to invest more in experiences and memories rather than things and possessions.

Chapter 4: The Senses, the Body, and “Big Blue”

When you're in the vicinity of water, what senses are you aware of? How does this change when you are in water? What about when you are submerged under water? How does this sensual awareness influence your emotions and your relationship with water?

Consider romance. How does romance relate to water? What romantic experiences have you had that involved water? Why do you think there is such a strong connection between water and romance?

Frequently, people describe their lives through phrases related to water. For example, we might say, “I'm in over my head” or “I'm going with the flow” or “I'm just floating for now.” What are some other examples? What do these metaphorical sayings reveal about our inner and outer experiences of water?

Advances in modern technology are enabling people to indirectly experience water in ways that can be highly impactful on the visual and auditory senses (e.g., high-definition sound and picture). What is possible through these experiences and what is lacking? Consider the interplay between real and virtual environments. In what ways could apps, film, and photography create lasting memories, awe, and wonder? How could these technologies benefit water conservation?

Go Deeper: The next time you are in water (even if that means the shower or bathtub!), explore it with all of your senses (sight, hearing, touch, taste, and smell). Notice what you have never noticed about water before. Pay attention to

the memories of other experiences in water that arise. Explore them, especially the emotions that are present. Make a vow to be even more attentive to your senses when you interact with water in the future (even if that's washing the dishes).

Chapter 5: Blue Mind at Work and Play

Swimming champion and avid waterman Bruckner Chase turned his passion for water into a meaningful career. In the US and other westernized societies people are often discouraged from integrating their passions into their work. We commonly refer to “work and play” or “work and hobbies” as separate activities. Is this true for you? How would your life be different if your career had been kick-started by your passions?

In what ways does water play a role in your job, field of study, hobbies, and recreational activities? How does water motivate you? What if water were no longer available for these activities? How would your motivation change? How would your life change?

Do you know someone with a “water addiction”? Are you a water addict? If so, in what way? Describe a healthy water addiction and an unhealthy version. How does water addiction foster or inhibit water conservation?

Go Deeper: J and his friend Chuy Lucero have pledged to gather their families on the shores of Mexico when they are great-grandfathers and raise a toast to the sea turtles they have dedicated their lives to protecting. What vows are you willing to make with regard to water and the species whose lives

depend on it for their survival? Make one or more of these vows and share them publicly with others through social media using the #bluemind tag.

Chapter 6: Red Mind, Gray Mind, Blue Mind: The Health Benefits of Water

What role has water played in your health and well-being? How has water put your health at risk? In what ways has it been healing?

J provides his perspectives on Red Mind, Gray Mind, and Blue Mind. What do these concepts mean to you? Consider people you know. Which mind-set do they most orient toward? How does this change with context? How does your mind-set change with time and place? Why?

Red Mind has become a prominent mind-set in modern society. How is this beneficial? How is it detrimental? What direct experience do you have of the benefits and limitations of Red Mind? How can we use Blue Mind to influence Red Mind in society?

People seek out water for relaxation. What are some ways that you can boost Blue Mind in your everyday life? In what ways could you use Blue Mind to create a more relaxed and creative atmosphere for your family, friends, and colleagues?

Go Deeper: Water played an important role in J's healing following a tractor accident. Undoubtedly there are some ways in which you express Red Mind and/or Gray Mind that undermine your health and well-being. Identify Blue Mind practices that can help you thrive physically and psychologically, even spiritually. Adopt them.

Chapter 7: Blue Unified: Connection and Water

Some people turn to water for inspiration, while others easily get bored sitting on a beach. What has been your experience? What do you think explains the difference in people's reactions to water? How do you think this has changed in society over time? Why?

People who feel a strong affinity for water often describe their connection with it as something quite personal, even intimate. For this reason, people often seek privacy and solitude when communing with water. How have your private experiences in or near water been different from those in the vicinity of other people (e.g., at public swimming pools or beaches)? What do we lose as individuals and a society when privacy and solitude are not available to us?

How could artists help people build a stronger connection to water? What kinds of projects can you envision? What kinds of arts events, movements, or campaigns? How could neuroscientists and psychologists help people build a stronger connection to water? What new research question would you like them to pursue?

Go Deeper: Remember a time when you felt intimately connected to water. Name the emotions that were present. Make a list of your insights and beliefs. Compare this to the times just before and just after this experience. Looking back, consider the differences and reflect on how the intimate experience with water changed you in some way, small or large. Do something to express your gratitude for the positive effect that water had (e.g., clean up a waterway, make a donation to

an organization focused on water conservation, give a copy of *Blue Mind* to someone who could benefit from a deeper connection to water).

Chapter 8: Only Connect

Water is integral to the creation myths of ancient civilizations worldwide. What role did water play in the stories told by your ancestors? What role did water play in their ceremonies and rituals? In what ways has this relationship with water been passed down through time? What has been lost through time?

Important social interactions often take place in or near water. What role does water play in connecting people? What has been true of this experience in your life? Imagine these social events without water. What's different? Why?

People often report getting their best ideas in the shower. Have you had this experience, or have you found other water contexts to be particularly good at connecting body and mind? Are there patterns to your experience? Why do you think water is so good for enabling us to connect with aspects of ourselves?

Consider your next opportunity to be near or in water. Whom will you take with you and why? Is your answer different if the experience is a natural body of water or an artificial water source? Why? How does your answer change according to your intent for interacting with water?

Go Deeper: Each of us has a personal story or creation myth that involves water. Consider what yours is. Express your myth through a written story or some form of deeply expressive art (e.g., dance, theater, painting, rhythm-based

music). Share your myth through social media using the #bluemind tag.

Chapter 9: A Million Blue Marbles

J opens the final chapter with a quote from Marcel Proust that reads, “The real voyage of discovery consists not so much in seeking new territory, but possibly in having new sets of eyes.” In what way has *Blue Mind* given you new eyes?

When astronauts describe the profoundly transformative experience of viewing the water planet from space, they often use expressions of awe and wonderment. In what way has awe been a part of your own transformative experiences with water? How could a sense of awe be better used to inspire water conservation?

How can you share Blue Mind ideas with like-minded people, as well as people who have not yet acquired a Blue Mind? How can you use your Blue Mind to help us better protect watery places and water quality? What will be your first step? When will you start?

Go Deeper: Get a bag of blue marbles. Play with them. Meditate with them. Do silly and profound things with them. Share them with friends, colleagues, and strangers who will become fast friends. Most important, gaze into them. Notice what this crystal ball has to say about your future and water’s future and your future relationship with water. Blue marbles are available from J at bluemarbles.org and wherever he happens to be speaking on Blue Mind.