

Southern Methodist University

SMU Scholar

---

Perkins Faculty Research and Special Events

Perkins School of Theology

---

Fall 12-8-2022

## Interdisciplinary Convergence to God: A Supplement to The Big Bang & God– An Astro-Theology

Theodore Walker  
twalker@smu.edu

Follow this and additional works at: [https://scholar.smu.edu/theology\\_research](https://scholar.smu.edu/theology_research)



Part of the [Metaphysics Commons](#), [Philosophy of Science Commons](#), [Religious Thought, Theology and Philosophy of Religion Commons](#), and the [Stars, Interstellar Medium and the Galaxy Commons](#)

---

### Recommended Citation

Walker, Theodore, "Interdisciplinary Convergence to God: A Supplement to The Big Bang & God– An Astro-Theology" (2022). *Perkins Faculty Research and Special Events*. 29.  
[https://scholar.smu.edu/theology\\_research/29](https://scholar.smu.edu/theology_research/29)

This document is brought to you for free and open access by the Perkins School of Theology at SMU Scholar. It has been accepted for inclusion in Perkins Faculty Research and Special Events by an authorized administrator of SMU Scholar. For more information, please visit <http://digitalrepository.smu.edu>.

## **Interdisciplinary Convergence to God:**

A Supplement to *The Big Bang & God—An Astro-Theology*

Theodore Walker Jr.

### **Abstract –**

Here is a December 2022 supplement to the 2015 book—*The Big Bang and God: An Astro-Theology* wherein an astronomer and a theologian offer a study of interdisciplinary convergences with natural theology both in the scientific researches of Sir Fred Hoyle and in the philosophical researches of Charles Hartshorne and Alfred North Whitehead, thereby illustrating a constructive postmodern trend (New York: Palgrave Macmillan, 2015) by Theodore Walker Jr. and Chandra Wickramasinghe, with editing and co-authoring by Alexander Vishio.

Biology, astronomy, astrobiology, cosmology, and theology converge when the word “God” refers to “that than which none greater can be conceived” (St. Anselm), and therefore to “the one all-inclusive whole of reality,” the “universal individual” (Schubert Ogden, Charles Hartshorne), the all-inclusive and eternally creative Creator.

Accordingly, “Convergence to God” was the penultimate title of *The Big Bang and God: An Astro-Theology ...* (2015) and the ultimate title of the concluding chapter in *Evolution from Space: A Theory of Cosmic Creationism* (1981) by Sir Fred Hoyle and Chandra Wickramasinghe.

This supplement includes the original Preface, the original Summary Preview, plus eight new Abstracts abstracted from each of the original eight chapters, and a new selected Bibliography.

### **Keywords:**

astro-theology; cosmo-theology; interdisciplinary convergence; natural theology; constructive postmodern science; process-relational theology; neoclassical theology

----

Original **Preface** to *Big Bang and God: An Astro-Theology ...* (2015)

By references to scientific literature, including many technical papers, an *interdisciplinary convergence* is historically described, critically evaluated, and constructively advanced. This study of scientific literature by and about Sir Fred Hoyle and his collaborators shows how *astronomy, biology, astrobiology, astrophysics, and cosmology converge with natural theology*. And, as advanced by constructive postmodern scholars instructed by mathematician-philosopher Alfred North Whitehead and logician-philosopher Charles Hartshorne, *natural theology yields biology and psychology with cosmological scope*. Accordingly, this book could have been entitled “Convergence to God: Astronomy, Biology, Astrobiology, Astrophysics, Psychology, Cosmology, and Natural Theology.”

This book was co-authored by an astronomer [astrobiologist and long-time Hoyle research collaborator Chandra Wickramasinghe] collaborating with a theologian [theological ethicist Theodore Walker Jr.]. An early modern label appropriate to such interdisciplinary convergence is “Astro-Theology” (William Derham 1715). Our contemporary revision—of an early modern astro-theology—illuminates a constructive postmodern trend. At fundamental levels, advancing natural scientific disciplines are more and more converging with natural theology.

Illuminating this constructive postmodern trend by reference to technical scientific literature (plus popular scientific writings by technical researchers) in each of the converging disciplines [astronomy, biology, astrobiology, astrophysics, psychology, cosmology, philosophy of nature, and natural theology] demands a sizable interdisciplinary bibliography. Also, this constructive postmodern trend includes natural scientific disciplines converging [or re-converging] with various artistic disciplines, especially poetry. Hence, poets (including Samuel Taylor Coleridge, and Edgar Allan Poe!), science fiction writers (including Octavia E. Butler, Arthur C. Clarke, and Fred Hoyle!), and other artists appear throughout this study. They are essential to the history of science. And documenting this enlarges an unavoidably large interdisciplinary bibliography. Moreover, future research, within and across various natural scientific disciplines and fields that converge with natural theology, can benefit from a thoroughly technical and appropriately interdisciplinary bibliography. (Walker and Wickramasinghe 2015: xi-xii)

#### Original **Summary Preview** of *Big Bang and God: An Astro-Theology ...* (2015)

This book [*Big Bang and God: An Astro-Theology ...* (2015)] is about converging scientific disciplines. Astronomy, physics, and chemistry were beginning to converge with biology by 1946. In that year, Fred Hoyle showed that stellar processes produced heavy elements from hydrogen. See “The Synthesis of the Elements from Hydrogen” (Hoyle 1946a). Earthlings are made from heavy elements synthesized in stars. Hoyle and his collaborators thus showed that we are made of stardust. See “Synthesis of the Elements in Stars” (1957) by E. Margaret Burbidge, Geoffrey R. Burbidge, William A. Fowler, and Fred Hoyle (B<sup>2</sup>FH). Furthermore, Hoyle and Chandra (Nalin Chandra) Wickramasinghe presented observational evidence that interstellar clouds contain organic molecules (1962, 1967, 1969a, 1969b, 1976, 1977a, 1977b, 1978, 1979b, 1980, 1983a, 1983b, 1984, 1985). Then, in a series of publications (including “On the Nature of Interstellar Grains” [1979b]), Hoyle and Wickramasinghe presented evidence that interstellar clouds contain bacteria (probably freeze-dried and, perhaps, mostly dead) and proposed that bacteria and water came to the primal Earth via comets (1978, 1978b, 1979, 1981a [1980], 1981b, 1982a, 1982b, 1985, 1986, 1987, 1988a, 1988c, 1988d). Earth was—and continues to be—seeded by comets and cometary debris (meteorites and micrometeorites). This theory of

interstellar and cometary seeding is called “cometary panspermia” (1981a [1980]). Accordingly, microbiology was extended from exclusively Earth science to astronomy, astrobiology, and comet science.

Moreover, Hoyle and Wickramasinghe argued that cosmic fine-tuning is required to make biology possible (1981b). Cosmic fine-tuning exemplifies divine attributes: cosmic intelligence (omniscience), cosmic influence (omnipotence), and cosmic providence. Hence, astrobiology requires a cosmology that is consistent with theology.

Basic types of theology are identified and evaluated in *Philosophers Speak of God* (1953) by Charles Hartshorne and William L. Reese. One type of natural theology advanced by Alfred North Whitehead, and further advanced by Hartshorne, is appropriate to the work of Hoyle and Wickramasinghe: *panentheism*.

Panentheism, from *pan-en-theos*-ism, means *all-in-God*-ism. According to panentheism, *all* that is actually real (*pan*) is included in (*en*) God (*theos*). “All things are in him,” says Saint Anselm of Canterbury (Williams 1955: 388). God is the all-inclusive whole of reality (Hartshorne 1973 [1967]: 7, 12, 16; Ogden 1984b: 21). And the divine whole of reality is greater than (because inclusive and transcendent of) the sum of all parts of reality. The aggregate sum is called “universe” or “cosmos,” and the greater-transcendent whole is “God.” God is therefore “that than which nothing greater [better or even equal] can be conceived” (St. Anselm). \*

\*Anselm’s Latin, according to Norman Malcolm, is: *aliquid quo nihil maius cogitari possit*. And Malcolm reports that Anselm sometimes used these two alternatives to identify God: *aliquid quo maius nihil cogitari potest, id quo maius cogitari nequit*, and *aliquid quo maius cogitari non valet* (1960: 41). Also, see *Anselm’s Discovery* (Hartshorne 1965).

As advanced in constructive postmodern thought, panentheism is consistent with *panpsychism* (also called “panexperientialism” [David Ray Griffin 2007: 12]) and with *panspermia*. In other words, panoramic theology is consistent with panoramic psychology and panoramic biology.

Panspermia, meaning panoramic provisioning for the possibility of newly emerging life, agrees with the theological conception of God’s universal life-favoring *providence* and with the “philosophy of organism” developed in *Process and Reality: An Essay in Cosmology* (Whitehead 1927-28). And this *generic* panspermia (that agrees with a theology of providence and a cosmological philosophy of organism/biology) is factually exemplified by “cometary panspermia” (Hoyle and Wickramasinghe 1981a [1980]).

Hence, as advanced by astronomer-cosmologist Sir Fred Hoyle and astrobiologist Chandra Wickramasinghe, *astronomy, biology, astrobiology, astrophysics, and cosmology converge with natural theology*. And as advanced by constructive postmodern scholars instructed by Alfred North Whitehead and Charles Hartshorne, *natural theology yields biology and psychology with cosmological scope*.

This study corrects the prevailing view that Hoyle was unchangeably committed to atheism, and it corrects a widely shared misconception concerning relations among astronomy, cosmology, biology, and theology. In modern astronomy and cosmology, it is often conceived that while big bang cosmology implicitly supports the idea of a divine creator (required to ignite the big bang “in the beginning”), any alternative cosmology with “no boundary” (no absolute beginning) must witness against the idea of a divine creator (Hawking 1988). And, of course, it is frequently conceived that evolutionary biology witnesses against the idea of a divine creator. As a corrective, this study reveals that *both no-boundary cosmology and evolutionary biology agree with natural theology*. (Walker and Wickramasinghe 2015: xvii-xix)

## **Chapter by Chapter Abstracts - concerning *Big Bang and God: An Astro-Theology ...* (2015):**

### **Abstractions from**

#### **Chapter 1 Astro-Theology and Cosmology**

An early modern convergence of math-and-telescope-assisted astronomy with systematic theology was presented in the book *Astro-Theology: Or, A Demonstration of the Being and Attributes of God, from a Survey of the Heavens* (London: William Innys, 1715), written by observational astronomer and Anglican clergyman William Derham (1657-1735). Our present day constructive postmodern revision (of Derham's early modern astro-theology) includes appreciating advances in astronomy and cosmology achieved by Sir Fred Hoyle. In cosmology, Hoyle is remembered for advancing steady-state and quasi-steady-state cosmologies, and for giving the name "big bang" to an alternative cosmology advanced by Georges Lemaître (and by poet-writer Edgar Allan Poe). And though initially Hoyle argued against big bang cosmology, subsequently he made highly significant contributions to big bang, inflationary, oscillatory, and multiverse cosmologies. In the next chapter, we appreciate Hoyle's contribution to theory about stellar evolution.

### **Abstractions from**

#### **Chapter 2 Interdisciplinary Convergences: From Stardust to Generalised Deity**

Astronomy and physics converged with chemistry in Hoyle's account of our creation and evolution from stardust. Stars are astrochemical factories synthesizing the heavier elements, and exploding these elements into interstellar space where those elements become parts of subsequent generations of stars and planets. *Stellar evolution* makes carbon-based life possible by synthesizing carbon and other elements essential to life. Thus, Hoyle contributed to the development of new convergent disciplines: nuclear astrophysics, astrochemistry, and astrobiology. Astrobiology was further advanced when Hoyle and Wickramasinghe argued that interstellar dust includes organic molecules, and that comets circulate water and organic materials, including bacteria and viruses, a theory called "cometary panspermia." Moreover, astrobiology and cosmology converged with natural theology in "Convergence to God" (1981b) by Hoyle and Wickramasinghe. Here, they held that any possibility for life in the universe depends upon cosmic providence. The cosmic provider is God. Hoylean-Wickramasinghean astrobiology requires a cosmology that agrees with theology, an astro- and cosmo-theology.

### **Abstractions from**

#### **Chapter 3 Microbiology and Cometary Panspermia in Context**

Unlike late modern science, constructive postmodern science (such as this revision of early modern astro-theology) does not exclude theology. Fred Hoyle started his career as an atheist; but his commonsense interpretation of scientific evidence forced a pro-theistic conclusion: A super intellect is exerting cosmic influences favoring life. Also, Hoylean-Wickramasinghean thinking about microbial life in outer space (amid comets, stars, and interstellar dust) challenges modern scientific commitment to the unproven idea that microbial life originated in a primordial pond on Earth. Hence, late modern scientific prejudice has continually suppressed and ridiculed evidence of microbial life in the upper stratosphere, and

evidence of microbial fossils in meteorites from comets. Though cometary panspermia remains a widely resisted theory, supporting evidence is growing stronger, and resistance is growing weaker.

### **Abstractions from**

#### **Chapter 4 Cosmology, Reality, and Panoramic Theology**

Among “cosmic variables” (Hartshorne), there are variations in reality-inclusiveness. Attending to variations in reality-inclusiveness yields these options for conceiving of the reality of God: Conceiving that God is the all-inclusive whole of reality (and that the whole is greater than the sum of all included parts, all parts of reality) is *panentheism*. Conceiving that God is merely the sum of all parts of reality is *pantheism*. Conceiving that God is some part(s) of reality [perhaps some purely spiritual part(s)] is *classical theism*. And conceiving that God is none of reality (not real) is *atheism*. Constructive postmodern theology affirms panentheism. Accordingly, there must be one God (one all-inclusive whole of reality), and one universe (one set of all parts of reality). Speaking of more or less than one of either is self-refuting.

### **Abstractions from**

#### **Chapter 5 Cosmology, Panoramic Biology, and Panoramic Psychology**

Cosmology is where panoramic biology (panspermia) and panoramic psychology (panpsychism) meet panoramic theology (panentheism). Panspermia, meaning panoramic provisioning for the possibility of newly emerging life, agrees with the theological conception of God’s universal life-favoring *providence*. This generic panspermia is exemplified by *cometary panspermia* (Hoyle and Wickramasinghe 1981a [October 1980]). Panpsychism [also called “psychicalism” and “universal psychicalism” (Hartshorne 1984b) and “panexperientialism” (Griffin 2007)] holds that experience (a psychical concept) is never entirely absent. Experience is panoramic. Classical panpsychism has been significantly revised and re-categorized as “neoclassical” (Hartshorne 1962) and as constructive “post-modern” (Cobb Spring 1964). Panentheism, in constructive postmodern theology, affirms cosmic consciousness, cosmic providence, cosmic creativity (a divine Creator creatively and providentially interacting with all creatures and creations), and hence cosmic evolution.

### **Abstractions from**

#### **Chapter 6 Analogy, Metaphysics, Mythical Symbols, and Religion**

Rāmānuja, a south Indian Brahman (1017-1137) employed mind-body analogy to reach a panentheistic conclusion. A human mind has a human body. Analogously, a universal mind has a universal body. The universe is the body of God. Pre-modern mind-body analogy, along with modern (microscope-assisted) person-to-cell analogy, and transcendental metaphysics (study of logically necessary features of existence as such) are among constructive postmodern methods of doing natural theology. Charles Hartshorne frequently argued metaphysically from logical necessity to theology; and he sometimes argued analogically from psychology and biology to theology. Also, mythological images can be used to express scientific ideas. In *Cosmic Dragons* (2001) Chandra Wickramasinghe employs Chinese dragon images to symbolize comets, meteors

and meteor showers. This mythological rendering of cometary panspermia inspires religious sentiments.

### **Abstractions from**

#### **Chapter 7 Future Interdisciplinary Convergences with Theology: A Constructive Postmodern Trend**

The modern separation of disciplines from other disciplines is still very much present. Nevertheless, we predict a constructive postmodern future. We predict increasing interdisciplinary advances and convergences, including convergences with poetry and other artistic disciplines. In science, where theology is not explicit, it is merely implicit. To the extent that scientists and other natural philosophers continue to value explicit over implicit, we can be fully confident in predicting continuing advances toward and convergences with natural theology, especially with constructive postmodern natural theology, panentheism.

### **Abstractions from**

#### **Chapter 8 Future Astrobiology**

In contemporary modern biology, the accepted paradigm holds that life emerged from non-life by random assembly in a primordial soup on planet Earth. This modern theory of spontaneous generation has classical roots (Aristotle); and it is consistent with medieval and modern commitments to Earth-centered metrics [cosmology and astronomy reduced to geometrics] and Earth-centered biology. Earth-centered metrics were challenged by Copernicus. Earth-centered biology is challenged by cosmic biology, stellar evolution, and cometary panspermia. Recent developments in observational research are producing a cumulative case for expanding the scope of biology into the extraterrestrial realms of comet science, astronomy, and cosmology. These recent developments include developments in viral sequencing, astronomical spectroscopy, data from meteorites and comets, data from the Sheffield balloon experiments, and data from the *Rosetta* Mission to Comet 67/P.



## Bibliography

Burbidge, E. Margaret with Geoffrey R. Burbidge, William A. Fowler, and Fred Hoyle. (October 1957). "Synthesis of the Elements in Stars" in *Review of Modern Physics*, volume 29, issue 4, pages 547-650 [doi:10.1103/RevModPhys.29.547] [Identified by author initials as "B<sup>2</sup>FH" (Rees 1997: 16). *B<sup>2</sup>FH* is so widely known because it was "a turning point in our knowledge of how the universe works" (Tyson and Goldsmith 2004: 165).]

Derham, William. (1715). *Astro-Theology: Or, A Demonstration of the Being and Attributes of God, from a Survey of the Heavens*. London: William Innys.

Graff, Harvey J. (2015). *Undisciplining Knowledge: Interdisciplinarity in the Twentieth Century*. Baltimore: John Hopkins University Press.

Hartshorne, Charles (1970). *Creative Synthesis and Philosophical Method*. La Salle, Illinois: Open Court Publishing.

Hartshorne, Charles (1984a). *Creativity in American Philosophy*. Albany, New York: State University of New York Press.

Hartshorne, Charles. (1984b). *Omnipotence and Other Theological Mistakes*. Albany: State University of New York Press.

Hartshorne, Charles and William L. Reese. (1953). *Philosophers Speak of God*. Chicago: University of Chicago Press [Reprints: Chicago: Midway Reprints, 1976; Amherst, New York: Humanity Books, 2000]. [Here Whitehead's view of God is classified as "panentheism."]

Hoyle, Fred. (1947). "On the Formation of Heavy Elements in Stars" in *Proceedings of the Physical Society*, volume 59, issue 6, pages 972-978.

[We are evolved star dust. We are made from heavy elements synthesized in previous generations of stars. See: "The Synthesis of the Elements from Hydrogen" (6 April 1946) by Fred Hoyle, "On the Condensation of the Planets" (13 April 1946) by Fred Hoyle, "The Chemical Composition of the Stars" (6 January 1947) by Fred Hoyle, "On the Formation of Heavy Elements in Stars" (1947) by Fred Hoyle, "Stellar Evolution and the Expanding Universe" (5 February 1949) by Fred Hoyle, "On Nuclear Reactions Occurring in Very Hot Stars. I. The Synthesis of Elements from Carbon to Nickel" (22 December 1953) by Fred Hoyle, "Origin of the Elements in Stars" (5 October 1956) by Fred Hoyle, William A. Fowler, E. Margaret Burbidge, and Geoffrey R. Burbidge, and "Synthesis of the Elements in Stars" (October 1957) by E. Margaret Burbidge, Geoffrey R. Burbidge, William A. Fowler, and Fred Hoyle /*B<sup>2</sup>FH*. The work signified by *B<sup>2</sup>FH* is so widely known because it was "a turning point in our knowledge of how the universe works" (Neil de Grasse Tyson and Donald Goldsmith 2004: 165).]

Hoyle, Fred. (5 February 1949). "Stellar Evolution and the Expanding Universe" in *Nature*, volume 163, pages 196-198 [doi:10.1038/163196a0].

Hoyle, Fred. (1984 [c1983]). *The Intelligent Universe: A New View of Creation and Evolution*. New York: Holt, Rinehart and Winston Publishing.

Hoyle, Fred and Chandra [Nalin Chandra] Wickramasinghe. (1978d). *Lifecloud: The Origin of Life in the Universe*. London, Toronto, Melbourne: J. M. Dent & Sons.

Hoyle, Fred and Chandra [Nalin Chandra] Wickramasinghe. (1979a [1978]). *Diseases from Space*. London: J. M. Dent & Sons.

Hoyle, Fred. (15 April 1980). *The Relation of Biology to Astronomy*. Cardiff, Wales: University College Cardiff Press.

Hoyle, Fred and Chandra Wickramasinghe. (1981a [1980]). “Comets—a Vehicle for Panspermia” in *Comets and the Origin of Life: Proceedings of the Fifth College Park Colloquium on Chemical Evolution*, October 29-31, 1980, University of Maryland, edited by Cyril Ponnampuruma. Boston: Kluwer.

Hoyle, Fred and N. Chandra Wickramasinghe. (1981b). “Convergence to God” (chapter 9, pages 129-45) in *Evolution from Space: A Theory of Cosmic Creationism*. New York: Simon and Schuster.

Hoyle, Fred and N. Chandra Wickramasinghe. (1981c). *Space Travellers: The Bringers of Life*. Cardiff: University College Cardiff Press.

Rees, Martin. (1997). *Before the Beginning: Our Universe and Others*, forward by Stephen Hawking. Cambridge, Massachusetts: Helix Books.

Rees, Martin. (2001). *Our Cosmic Habitat*. Princeton, New Jersey: Princeton University Press.

Rees, Martin (2005). Foreword (pages x-xiii) in *The Scientific Legacy of Fred Hoyle*, edited by Douglas Gough. Cambridge: Cambridge University Press, 2005, 2011 paperback.

Rees, Martin. (10 January 2011). “Life in the Cosmos” is a Madingley Lecture at University of Cambridge.

Tyson, Neil de Grasse and Donald Goldsmith. (2004). *Origins: Fourteen Billion Years of Cosmic Evolution*. New York; London: W. W. Norton.

Wainwright, Milton and Nalin Chandra Wickramasinghe. (1 January 2023). *Life Comes from Space: The Decisive Evidence*. World Scientific Publishing Company.

Whitehead, Alfred North. (1925). *Science and the Modern World* (Lowell Lectures, 1925). New York: Macmillan; Free Press, 1967.

Whitehead, Alfred North. (1927-28). *Process and Reality: An Essay in Cosmology* (Gifford Lectures Delivered in the University of Edinburgh During the Session 1927-28), 1978 *Corrected Edition*, edited by David Ray Griffin and Donald W. Sherburne. New York: Free Press, 1978.

Whitehead, Alfred North. (1933). *Adventures of Ideas*. New York: Macmillan Publishing.

Whitehead, Alfred North. (1934). *Nature and Life*. Chicago: University of Chicago Press.

Wickramasinghe, Chandra [Nalin Chandra]. (2004 [received 29 September 2003]). “The Universe: A Cryogenic Habitat for Microbial Life” in *Cryobiology*, volume 48, pages 113-125.

Wickramasinghe, Chandra [Nalin Chandra]. (2005a). *A Journey with Fred Hoyle: The Search for Cosmic Life*, edited by Kamala Wickramasinghe. London: World Scientific Books.

Wickramasinghe, Chandra [Nalin Chandra]. (April 2010 [online 29 January 2010]). “The Astrobiological Case for Our Cosmic Ancestry” in *International Journal of Astrobiology*, volume 9, issue 2, pages 119-129 [doi:10.1017/s1473550409990413].

Wickramasinghe, N. C. [Nalin Chandra]. (2014). *The Search for Our Cosmic Ancestry*. Hackensack, New Jersey: World Scientific Publishing.

Wickramasinghe, Chandra, editor. (2015). *Vindication of Cosmic Biology: Tribute to Sir Fred Hoyle (1915-2001)*. Hackensack, NJ: World Scientific.

Wickramasinghe, Chandra. (2015). *Where Did We Come From?: Life of an Astrobiologist*, edited by Kamala Wickramasinghe. Hackensack, NJ: World Scientific.

Wickramasinghe, N. Chandra, with Gensuke Tokoro and Milton Wainwright. (September 2014). “The Transition from Earth-Centred Biology to Cosmic Life,” a paper presented at United Nations/Austria Symposium on “Space Science and the United Nations” Graz, Austria, 22 to 24 September 2014, in *Journal of Astrobiology & Outreach*, 2014, 24, 7, pp 12080-12096, online at at <https://www.longdom.org/open-access/the-transition-from-earthcentred-biology-to-cosmic-life-2332-2519-1000122.pdf>.

Wickramasinghe, Chandra, with Kamala Wickramasinghe and Gensuke Tokoro. (2019). *Our Cosmic Ancestry in the Stars: The Panspermia Revolution and the Origins of Humanity*. Rochester, Vermont: Bear & Company.

8 December 2022