

The Untold Story of the Kitzmiller Trial

On December 20, 2005, Judge John E. Jones, III handed down his decision in the widely publicized *Kitzmiller v. Dover* case.¹ At the heart of his decision was a flawed narrative about the intelligent design textbook *Of Pandas and People* (Kenyon and Davis, 1993).² The following report is not the place to discuss the provocation or actions of the Dover Area School Board and the Judge's decision concerning them. It will concentrate instead on the narrative Judge Jones adopted, a narrative holding that intelligent design was a disguised form of creation science (or creationism) and thus inherently religious, and therefore its use in public schools a violation of the First Amendment. Judge Jones' view was largely derived from the ACLU's argument alleging that *Pandas* was originally written as a creation science text, but that its publisher and editors, the Foundation for Thought and Ethics (FTE), quietly changed the terminology, substituting "intelligent design" for "creation science" after the U.S. Supreme Court struck down the latter as religion in the 1987 *Edwards v. Aguillard* case.³ Abundant evidence establishing that this allegation is not only inaccurate, but also at odds with history, has been compiled since the trial. This evidence is provided in detail in the following account.

After the verdict in the *Kitzmiller* case and the explosion of media coverage in its wake, FTE expected the issue to fade away, and focused its efforts on the all consuming demands of publishing and putting on the market its 2008 book, *The Design of Life: Discovering Signs of Intelligence in Biological Systems* (Dembski and Wells 2008).⁴ Having posted its initial statement about the case, FTE said little else, reasoning that defensiveness is never attractive and more often than not, is counterproductive. Instead of fading away, however, the adopted narrative or "*Kitzmiller* story" about *Pandas*' background proved to be a powerful tool to stifle freedom of inquiry and speech and to intimidate ID sympathizers nationwide. While long ago it disappeared from the headlines, it continues to be imposed on the public, one egregious example being the NOVA documentary, *Judgment Day: Intelligent Design on Trial*, first aired on PBS on November 13, 2007, and several times subsequently.

More recently (2013) an article titled *What Law Students Are Learning about Intelligent Design*, by Casey Luskin of Discovery Institute appeared in Discovery's online publication, *Nota Bene*.⁵ This piece documents the ongoing creep of partisan rhetoric beyond the likes of the NOVA broadcast. It recounts what law school students who are assigned the text book, *American Public School Law* by Alexander and Alexander, are being taught about intelligent design. *American Public School Law* repeats Judge Jones's ID-as-creationism narrative.

Like Judge Jones, these authors recognize that the 1987 ruling of the U.S. Supreme Court defined creationism as "embodying the religious belief that a supernatural creator was responsible for the creation of humankind."⁶ Also like the Judge, they presume that *Pandas* advocated this religious belief, which it never did, neither in any prepublication draft, nor upon publication of the 1st or 2nd editions.

Many opponents of ID, like Alexander and Alexander, prefer to point to Judge Jones' ruling preemptively, to cut off any further debate. For these opponents, merely pointing at the ruling exempts them from even the most cursory need to recount the arguments ID makes, to interact with those arguments, or to defeat them on their merits.⁷ Thus it is necessary to finally go on the record with a firsthand account of the history of *Pandas*.

Here, in the words of the Opinion issued by Judge Jones, is the central claim of the *Kitzmiller* story:

What is likely the strongest evidence supporting the finding of ID's creationist nature is the history and historical pedigree of the book to which students in Dover's ninth grade biology class are referred, *Pandas*.

Judge Jones elaborated:

The weight of the evidence clearly demonstrates, as noted, *that the systemic change from “creation” to “intelligent design” occurred sometime in 1987, after the Supreme Court’s important Edwards decision.* This compelling evidence strongly supports Plaintiff’s assertion that ID is creationism re-labeled [emphasis added].

And Judge Jones summarized:

By comparing the pre and post Edwards drafts of Pandas, three astonishing points emerge: (1) the definition for creation science in early drafts is identical to the definition of ID; (2) cognates of the word creation (creationism and creationist), which appeared approximately 150 times were deliberately and systematically replaced with the phrase ID; and (3) the changes occurred shortly after the Supreme Court held that creation science is religious and cannot be taught in public school science classes in Edwards.⁸

Although significant quantities of the book have lost all market value, it’s never too late to set the record straight. Gathered evidence in the form of original records, documents, and confirming points of reference from a variety of public and private records tells a very different story. This documented information contradicts, and indeed, fully refutes the central narrative of the *Kitzmiller* story. It demonstrates that, from the outset, FTE was seeking to determine if intelligence played a role in bringing about living forms. In testing its ideas and searching for the most accurate, descriptive, and appropriate terminology to characterize the role of intelligence in biology, FTE considered many terms, none of which broke with scientific convention.

FTE’s Preparation

By late in 1981, under the leadership of chemist Charles Thaxton, its Director of Curriculum Research, FTE had begun a vigorous discourse probing the scientific basis for intelligence in nature. When Thaxton relocated to Dallas from Boston, he came as a well-credentialed scientist.⁹ Moreover, he was especially well suited to give leadership to the period of debate and research that was soon to unfold.¹⁰ He was the lead author and architect of FTE’s first book, the *Mystery of Life’s Origin: Reassessing Current Theories*.¹¹ His coauthors were Roger Olsen, Senior Research Chemist with Rockwell International, and materials scientist Walter Bradley, Chairman of the Department of Mechanical Engineering at Texas A&M University. These authors were singled out for commendation by the respected physicist and philosopher of science, Martin Eger.¹²

Mystery, which entailed an extensive review process prior to publication, won wide acclaim and was the first of many vehicles for a robust intellectual discourse begun early in the decade. For example, in the summer of 1985, during its first year following publication, *Mystery* was prominently displayed in the SMU Library as Science Book of the Month. [See **Appendix A, Acclaim for Mystery.**]

Groundwork for Pandas Begins

Two fundamental tasks lay before us as we contemplated what the *Pandas* project would require. Thaxton’s understanding in the philosophy of science was the departure point for the first, dealing with all-important questions of epistemology (how we know what we know). Second, very early, we needed to identify and recruit as authors one or more competent biologists for the project. We considered ourselves fortunate indeed to enlist not just one, but two previously-published authors of highly regarded mainstream works of biology, and they took part with us in planning the organization of the book they agreed to write.

These two tasks (the biological text and the epistemological case) were pursued on largely separate tracks. Thaxton’s intellectual dialog on the latter was well underway by 1981, six years *before* the *Edwards* ruling, and, from the start, always soliciting criticism and fostering rigorous debate. A noteworthy

symposium was held at the downtown Hilton Hotel in Dallas in 1983, “Christianity Challenges the University: An International Conference of Theists and Atheists.”¹³ This symposium brought together such scientific and philosophical luminaries as Allan Sandage, Antony Flew, Paul Kurtz, Kai Nielson and Russell Doolittle (the last four of these, along with others present, being outspoken advocates for atheism). Thaxton, who had been asked to organize and chair the origin-of-life panel of the symposium, brought together recognized origin-of-life researchers, including the other two coauthors of *Mystery*.

Because participants of the 1983 symposium in Dallas held competing philosophical perspectives, the reception given the *Mystery* manuscript varied. Still, it was surprisingly positive, despite fundamental differences in viewpoint, and several lasting relationships were forged there. It was at that symposium that Roy Varghese and the former British atheist philosopher, Antony Flew (died April 2010) became friends, and Gary Habermas and Flew became both friends and occasional debating opponents. Most important, it was there that Stephen Meyer, who would later become the Founder and Director of Discovery Institute’s Center for Science and Culture, first encountered the origin-of-life debate, a debate that, in a matter of days, fired his imagination, and ultimately, recruited his prodigious intellect for graduate studies at Cambridge University¹⁴ in the philosophy of science, followed by the formation of the institutional home for Intelligent Design in the U.S., the Discovery Institute in Seattle.

Epistemology and Historical Science: Can Analogies Help Us Learn What Did or Did Not Happen in the Unobserved Past?

The fact that substantive discussions of intelligent cause in the origin of biological life took place among highly qualified scientists in the first half of the 1980s—*predating* the *Edwards* decision—is irrefutable, and verification of this dating is fully accessible today. Many pursuing scientific research in historical sciences in the 1980s were concerned about how to legitimately address the unique challenges of an empirically-related epistemology, in ways that would gain strong acceptance among professionals in historical science. From 1980 through 1989, Charles Thaxton’s leadership figured uniquely in vigorous discussions fleshing out these questions and seeking a precise vocabulary for the science inherent in the project.

He raised again one of the central topics of *Mystery*: How can we know the cause of some event if it is not recurring today and was not observed in the past? This is the problem faced by investigators seeking to subject unique, non-recurring past events—such as chemical reactions in the early earth—to scientific test. This does not mean that prebiotic simulation experiments, such as the famous Miller-Urey experiment Stanley Miller conducted in the 1950s, are without value. But strictly speaking, prebiotic simulation experiments cannot falsify incorrect theories.

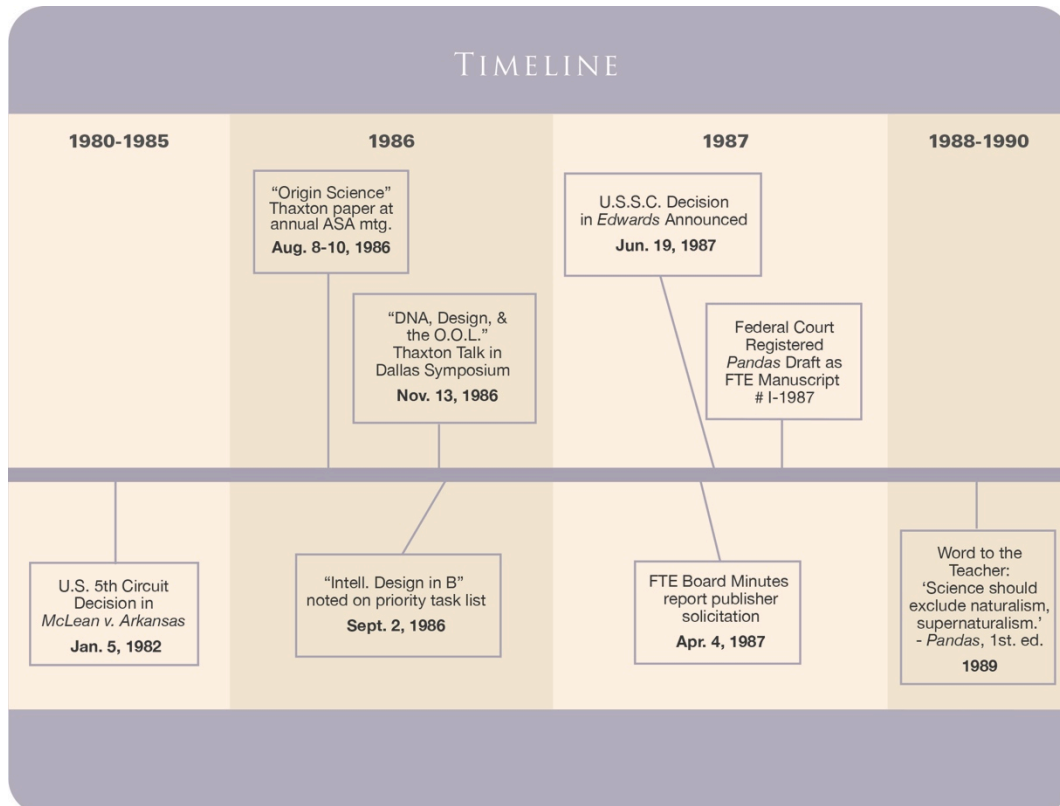
This crucial question, the scientific study of unobserved past events and prudent conclusions that can be drawn – with its implications for the history of all life – underlay Thaxton’s quest of the 1980s. He began with a “work around” construct he originally proposed in the Epilogue of *Mystery* as a category of science he called “origin science.” He ultimately reverted to the older, established term already in use, *historical science* with its fall-back position, that the empirical falsification of unique and unobserved past events is no longer in the scientist’s tool kit. Instead, the investigator must employ analogies. If they are convincing analogies that fit, conventional wisdom can accept them in place of absolute falsification. (Our focus on Thaxton’s work here is not meant to diminish the dozens of other fine minds who made important contributions to this discourse.)

In 1986, Thaxton developed a paper titled *Origin Science: New Rules, New Tools for the Evolution Debate*, for circulation during the Annual Meeting of the American Scientific Affiliation at Houghton College in New York (see Timeline below). It reflects a rigorous, judicious, and disciplined approach to the origin of life:

With the new data from molecular biology we can now argue for an intelligent cause at the origin of life based on the analogy between the DNA code and a written language. **Notice I did not say we can argue for the divine creation of life.** Many creationists make the mistake of jumping from the event under investigation straight to the biblical God. From scientific data alone we can conclude only that a plausible explanation of the event is a primary cause. We cannot identify that cause any further and say whether it is transcendent or immanent, whether it is the biblical God or some other intelligent being. I cannot look at the DNA molecule and say, God made that. What I can say is that, given the structure of a DNA molecule, it is certainly plausible to conclude that it was made by an intelligent agent. We may be able to identify that agent in greater detail by other arguments—by philosophical or theological ones, for example—but from scientific data alone we can argue only to a primary cause.¹⁵

Note that he used a number of terms, “intelligent cause,” “primary cause,” “intelligent being,” “intelligent agent.” Recall the chronological order of Judge Jones’ central narrative, a chronological order that is the indispensable lynchpin to his assertion that the term intelligent design replaced creation science “*after the Supreme Court’s important Edwards decision*”¹⁶ and notice that the Thaxton paper in which this paragraph appears was delivered in 1986, **not the year after the Edwards decision, but the year before it.** So nearly twenty years before *Kitzmiller* and a year before *Edwards*, the Academic Editor of *Pandas* and the guiding figure in its line of argument, expression, and writing, was making clear his perception that design in nature was real **but did not entail creationism or creation science.** In their analysis of the Judge’s decision, the authors of *Traipsing into Evolution* report on a court-registered document and observe that “Indeed, a pre-*Edwards v. Aguillard* draft from the first part of 1987 emphatically stated that ‘observable instances of information cannot tell us if the intellect behind them is natural or supernatural. This is not a question that science can answer.’”¹⁷

Thus, **as the timeline** indicates, allegations of hasty changes said to have been made in drafts of *Pandas* in the wake of the *Edwards* ruling fall flat and are entirely without merit.



Consider further what the Judge described as “compelling evidence.” What can be accomplished by changing a book’s central catchphrase while leaving the position it takes—its substance, its core argument—untouched? Would not hastily converting a book based on creation science take more than merely sprinkling in the words, “intelligent design” or “intelligent agent” with a word processor? Try passing off Dr. Seuss’s *One Fish, Two Fish, Red Fish, Blue Fish* as a trigonometry textbook by adding the words “sine,” “cosine” and “tangent.” No matter how often you use them, the resulting incongruity would be pervasive and insurmountable. No, something else—something substantively new, and not merely semantic—would be required. (We acknowledge that this analogy overstates our point, but we include it to draw attention to the impossibility of transforming one concept into a fundamentally different one, one that differs precisely at its defining core, by the mere sprinkling in of a few words.)

Contrary to Judge Jones’ ruling that *Pandas* was originally intended to advocate creationism, FTE in fact agreed with previous court rulings against teaching *actual* creationism in public schools. For example, within the 30-day appeal period immediately following the 1982 district court ruling against the teaching of creationism in *McLean v. Arkansas*, Charles Thaxton and I met with Arkansas Attorney General Steve Clark in his offices in Little Rock, urging him not to appeal the verdict. Simply put, this was because FTE agreed that “creation science” promoted a religious viewpoint that was not appropriate for use in public schools, and that future court rulings would no doubt concur that it is not legal to advocate in public schools. As the list of 42 reviewers and 8 editors and contributors in the front of *Pandas* might suggest, we believed that partisans on both sides of the worldview divide might find an academic and educational solution to be far superior to any legislative one.

The Actual Language in First Drafts of *Pandas* and Why They Read the Way They Did

But let’s turn briefly to address four specific terms Judge Jones cites in his decision. The first of these is “creation science.” Why was this term used in early drafts of some chapters of *Pandas* when, as claimed above, we had disavowed its use? Here is the answer: FTE brought Percival Davis and Dean Kenyon to Dallas, Texas for a meeting on August 18-19, 1982, to plan the project. Early in the discussions, Thaxton described the approach taken by *Mystery* and stated that FTE’s vision for the biology book was to treat biological origins in much the same way he and his co-authors had treated the origin of life itself in *Mystery*. (Having written the Foreword to *Mystery*, Prof. Kenyon was already very familiar with it.)

The project planning for *Pandas* exceeded the time available, leaving portions to be completed from three separate locations. Without the benefit of conceptual language that could only be worked out later, the new band of authors and editors dispersed, agreeing that Percival Davis would clarify his ideas in writing and send them to FTE. While Davis used the terms “creation science” and “creationism” in a document fleshing out his idea, FTE chose not to use them or the often articulated concept behind them. The legal relationship of the authors to FTE was that of contract labor. It was a “work made for hire,” so FTE was free to leave these terms in place on a temporary basis while it thrashed out the final conceptual language that ultimately would replace them. What FTE valued most in Davis’s work was his knowledge of biology and distinguished track record. He had coauthored with Eldra Solomon and Harvard biologist Claude Villee the best-selling college biology textbook for biology majors of the day, *Biology*, 2nd ed. (Philadelphia: W.B. Saunders, 1989), originally titled *The World of Biology*, when published by McGraw-Hill.¹⁸ His in-depth knowledge of biology across a wide range of topics was prodigious, and his skill and reputation as a writer were beyond dispute. We were pleased to have his participation.

Therefore, just as McGraw-Hill and W.B. Saunders had happily accepted Davis’s work even though he didn’t accept evolution, so too FTE decided to let his chapters out for review with the simple stipulation that the terms “creationism” and “creation science” would be replaced once an epistemologically sound case was developed, subjected to authoritative criticism, and refined. Soon after the original drafts were sent to us, dozens of copies were mailed to readers. (Note that prior to that time, substituting *intermediate terms* would, at best, have been cumbersome, further complicating an already complex process involving

many readers.) Thus when Davis's original work arrived, we welcomed the relevant biological material, and later when the epistemological process and sound terminology were determined, they were incorporated to better communicate intelligent design. It is for this reason that Judge Jones' claim about these identical definitions is both true and yet utterly *unastonishing*. Judge Jones would have had access to these facts had he not excluded FTE from the trial.

The *Edwards* Decision Was Actually Irrelevant to *Pandas*

When the U.S. Supreme Court struck down creationism as unconstitutional in the 1987 *Edwards v. Aguillard* case, it held that creationism advocates a "supernatural creator" and thus makes conclusions that are religious in nature and lie outside of the empirical domain of science.¹⁹ This significant ruling was in no way a challenge for *Pandas* because, as we have already noted, from its earliest stages *Pandas* was to remain within the empirical domain and not to make appeals to, or advocate for, the supernatural. Furthermore, publishing *Pandas* was a major undertaking for our tiny organization, and it would have been unthinkable to us and utterly foolhardy to ignore what the Fifth U.S. Circuit Court of Appeals had so recently [January 5, 1982] and decisively struck down as unconstitutional in *McLean v. Arkansas*.²⁰

Rather than advocating for the supernatural, this representative passage, which appears in identical language in both the 1st and 2nd editions, demonstrates that *Pandas* advocated the opposite:

For example, the place of intelligent design in science has been troubling for more than a century. That is because, on the whole, scientists from within Western culture failed to distinguish between intelligence, which can be recognized by uniform sensory experience, and the supernatural, which cannot. Today, we recognize that appeals to intelligent design may be considered in science, as illustrated by the current NASA search for extraterrestrial intelligence (SETI). Archeology has pioneered the development of methods for distinguishing the effects of natural and intelligent causes. ***We should recognize, however, that if we go further, and conclude that the intelligence responsible for biological origins is outside the universe (supernatural) or within it, we do so without the help of science*** [emphasis added].²¹

In view of the comparatively slow, disjointed, and laborious print technology of the day, the 1989 publication date of the 1st edition of *Pandas* meant that it was being edited at essentially the same time that Thaxton delivered a talk, *DNA, Design, and the Origin of Life* at an international conference in Dallas, TX, Nov. 13-16, 1986,²² and which, as we will presently see, advocated the identical position.

Even when reviewers' drafts of *Pandas* and consolidation drafts derived from them used the broader and more general term "creation," it was clear from their content that the *Pandas* project was distinct from creationism.²³ Pre-publication drafts of *Pandas* stipulated that "observable instances of information cannot tell us if the intellect responsible is natural or supernatural," and some added, "*This is not a question science can answer.*" Such stipulations appear in these drafts as well as in the published book. Since they stem from the caveat of the Scottish empirical philosopher David Hume that we cannot infer a supernatural cause from an observed physical effect, we have adopted the term "Humean caveat"²⁴ for these stipulations. As evidenced by such stipulations wherever relevant, the *Pandas* project was clearly not trying to investigate the supernatural; it intended to remain entirely within the empirical domain. Indeed, from its inception, *Pandas* was *fundamentally distinct* from creationism or creation science.

Why then would early drafts use the word "creation" at all?

But FTE's insistence on a heavily discoursed, well researched case necessarily entailed the provisional use of placeholders. In 1980, when Charles Thaxton joined a group of American scientists visiting Seoul, South Korea, he used the terms "a generic origin" and "generic origins," and in both his trial deposition for *Kitzmilller* and my own, we independently described the temporary use of the word 'creation' in early drafts of *Pandas* as a "placeholder." Moreover, the use of placeholders is not uncommon in science. How

could it be, since, by its very nature, science at the margins of human knowledge must study and *discuss* phenomena it does not yet fully understand? On Nov. 13, 2006, eleven months after *Kitzmiller*, Google reported 145,000 hits on “moment of creation,” including a large number in technical and general secular literature.²⁵ But by a quarter of a century earlier, when the *Pandas* project was undertaken, “moment of creation” had already become a very well-worn term. This is partially due to celebrated and remarkable findings of astronomy and cosmology over the previous two to three decades. When Prof. Robert Jastrow, Founder and Director of NASA’s Goddard Institute for Space Studies used the term “moment of creation” in his book, *God and the Astronomers* (New York: Norton, 1978), **he used it precisely as a placeholder:**

A sound explanation may exist for the explosive birth of our Universe; but if it does, science cannot find out what the explanation is. The scientist’s pursuit of the past ends in the **moment of creation** (emphasis added).²⁶

Judge Jones’ use of the ambiguous term “cognates” obscures the fact that the term “creationism” and its linguistic relative “creationist” mean different things. Many people who supported the Plaintiff in *Kitzmiller* would call themselves creationists, depending on the context. One could hardly ask for a more vivid clarification of the scope of the term “creationist” than that provided by the Plaintiff’s star witness against *Pandas*, Kenneth Miller, whose testimony at the trial is recounted in part in *Traipsing Into Evolution*:

Long before *Edwards*, the authors of *Pandas* specifically rejected the view that science could detect whether the intelligent cause identified was supernatural. Of course, the process by which an intelligent agent produces a designed object might loosely be called a “creation” (as in stating that this article was the “creation” of several authors) . . . as Miller himself acknowledged on the stand:

Q. Sir, in the ordinary meaning of the word a creationist is simply any person who believes in an act of creation, correct?

A. Yes, I think I would also regard that as the ordinary meaning of the word creationist.

Q. And you believe that the universe was created by God?

A. I believe that God is the author of all things seen and unseen. So the answer to that, sir, is yes.

Q. In a sense that would make you a creationist using the definition—

A. ... in that sense any person who is a theist, any person who accepts a supreme being, is a creationist in the ordinary meaning of the word because they believe in some sort of a creation event.

Q. And that would include yourself?

A. That would certainly include me.

The authors of *Traipsing* continue:

If Miller’s admission that he is a “creationist” in the “ordinary meaning of the word” does not make him an advocate of “creationism” as that term is generally understood today, why should the authors of *Pandas* be held to a different standard? Early drafts of *Pandas*, whatever their variations in terminology, clearly did not advocate what is widely understood as “creationism” [the belief that individual life forms were separately created by God, a supernatural creator, as understood in the Bible (definition added)].²⁷

So *Pandas* used the term “creation” as a generic placeholder. And the leading witness for the Plaintiff in *Kitzmiller*, Kenneth Miller, when allowed to define it for himself, claimed that he was a “creationist.”

Judge Jones' Confusion over the Categories of "Cause" in Science

But what about the term "supernatural," clearly the suspected offending implication of "creation" and creationist, as it applies—or doesn't—to *Pandas*? In his indictment of *Pandas*, Judge Jones turns to causation and categories of cause, subjects fundamental to the larger discussion. In his Opinion (p. 82) he writes,

Further support for the conclusion that ID is predicated on supernatural causation is found in the ID reference book to which ninth grade biology students are directed, *Pandas*. *Pandas* states, in pertinent part, as follows:

Darwinists object to the view of intelligent design *because it does not give a natural cause explanation* of how the various forms of life started in the first place. Intelligent design means that various forms of life began abruptly, through an intelligent agency, with their distinctive features already intact – fish with fins and scales, birds with feathers, beaks, and wings, etc. –P-11 at 99-100 (emphasis added).²⁸

"Stated another way," he continues, "ID posits that animals did not evolve naturally through evolutionary means but were created abruptly by a non-natural, or supernatural, designer."²⁹

Notice that "supernatural" is Judge Jones's term, not *Pandas*' . So the Judge ignores the text of *Pandas* and invokes in its place the metaphysical dichotomy of natural cause versus supernatural cause: If something is not natural, it must be supernatural. Of course, the term *natural* is often opposed to the term *supernatural* in this way. But there is another more relevant usage of the term natural. In the empirically limited frame of reference that must be adhered to in science and that was therefore employed throughout *Pandas*, the two opposing categories of causes are *natural* and *intelligent* (or natural and *artificial*), but not natural and supernatural. (No food manufacturer who claims on the label of his product that he uses all *natural* ingredients is ever accused by a competitor—even his fiercest competitor—of smuggling in one or two *supernatural* ingredients.)

Note that when restating the excerpt from *Pandas* above, Judge Jones not only confuses these two separate frames of reference—each with its own set of proper contraries—but appears to be blind to the empirically limited one, natural vs. intelligent. Yet in *Pandas*, the reader encounters on the second page of the **Introduction** (p. viii) the frame of reference that the Judge overlooks: "In the world around us we observe two classes of things: natural objects, like stars and mountains, and man-made creations, such as 'houses and computers.'" In this early introductory explanation of natural and intelligent causes, the reader is given purely natural, not supernatural, illustrations of the products of intelligent causation: 'houses and computers.' And this explanation of two fundamentally different categories of causes, natural and intelligent, which can be detected through uniform sensory experience or observation, *is consistently developed and adhered to throughout the book*:

If science is based upon experience, then science tells us the message encoded in DNA must have originated from an intelligent cause. *What kind of intelligent agent was it? On its own, science cannot answer this question; it must leave it to religion and philosophy.* But that should not prevent science from acknowledging evidences for an intelligent cause origin wherever they may exist.³⁰

Discovery Under the Search Light of Criticism

Having dealt with the terms *creation*, *creationist*, *natural* and *supernatural*, we will return for a closer look at certain benchmarks of the years of research and debate that began with the publication of *The Mystery of Life's Origin*. Abundant documentation, which is fully accessible today, demonstrates that

Charles Thaxton's early development and testing of intelligent design themes and elements render Judge Jones' argument anachronistic and incorrect. The term intelligent design was no overnight kneejerk reaction to the U.S. Supreme Court's June 19, 1987 ruling in *Edwards v. Aguillard*.

We have sampled diverse documentation including both Thaxton lectures and circulated papers, with their original dates. We have seen that some of these dates of publication and/or public presentation predate, by as much as a year or more, the *Edwards* ruling which Judge Jones alleged had triggered the new ID terminology. With the advances in understanding in molecular biology and information theory during those years, it became increasingly evident that the analogy between what is presently observable and the unobserved past—the convincing analogy that fit and that encompassed codes, machines, written language, and artifacts within a single, homogeneous category was the *intelligence* of which they gave evidence.

Just three months after he circulated his paper, *Origin Science: New Rules, New Tools for the Evolution Debate* at the Annual Meeting of the American Scientific Affiliation at Houghton College in New York (excerpted above), Thaxton expanded slightly on his analogy. Some of his ASA colleagues had offered feedback or expressed their agreement. As a result, he employed nearly the identical words at an international conference in Dallas, TX, Nov. 13 to 16, 1986. At this conference, Thaxton addressed these issues in greater detail in this passage from *DNA, Design, and the Origin of Life*:

With the new data from molecular biology and information theory, we can now argue for an intelligent cause of the origin of life. It is based on the analogy between the DNA code and a written message. We cannot identify that source any further from the scientific data alone. We cannot supply a name for that intelligent cause. We cannot be sure from the empirical data on DNA whether the intelligence is within the cosmos but off the earth as asserted by Hoyle and Wickramasinghe. It might be beyond the cosmos as historic theism maintains. All we can say is that, given the structure of a DNA molecule, it is certainly legitimate to conclude that an intelligent agent made it. Life came from a who rather than a what. We may be able to identify that agent in greater detail by other arguments. We may, for example, gain insight from historical, philosophical, or theological argument, or by considering the relevant lines of evidence from other areas of science. However, from scientific data on DNA alone we can argue only to an intelligent cause.³¹

Appendix C, “Recurring Themes,” plots the progressive development of seven signature themes and elements in Thaxton's documents through the mid-1980s. Although not all new, these cohesive themes by and large constituted the conceptual building blocks forming the core of intelligent design thinking in the early and mid-1980s. Note that they could not have been conjured up at the drop of a gavel! This development can be tracked over a six-year period in the mid-1980s through five Thaxton papers and lectures. Here, in **Appendix C**, are their seven recurring themes and elements:

- 1) The subjects of scientific investigation are properly limited to the empirical domain.
- 2) Examples offered of intelligent cause are observable artifacts within the empirical domain.
- 3) Arguing from empirical data to a supernatural Creator is inadmissible.
- 4) Because we cannot directly test theories about unique past events against recurring phenomena, special alternative means—such as analogy—are required to study and understand them.
- 5) Molecular biology and information theory have developed methods that identify intelligent design.
- 6) Just as we recognize books, machines, artifacts and codes to be the products of human intelligence because of their specified complexity, so too the specified, complex, functional information in living things points to an intelligent source.
- 7) A proper and realistic appreciation for the role often played by metaphysics is important in contested issues of science.

It is evident from Thaxton's mid-1980s remarks in both *Origin Science* and *DNA, Design, and the Origin of Life* that he understood that information theory and data from molecular biology had provided

important tools to detect information as the product of intelligent cause. He, Walter Bradley and Roger Olsen, his coauthors in *Mystery*, had already advanced from these fields of study and from thermodynamics a staggering case against the naturalistic origin of the first living cell. Indeed, by 1990, origin-of-life researcher Brend-Olaf Koppers noted that “The problem of the origin of life is clearly basically equivalent to the problem of the origin of biological information.”³²

Scrutinizing the Dates and Connecting the Dots

Is there any compelling evidence that the documents listed and analyzed in **Appendices B and C** were actually connected with the text of *Pandas* as informative sources? And is there evidence that these connections existed prior to the important *Edwards v. Aguillard* decision, which Judge Jones credits with the “astonishing” pivotal role of provoking FTE to seize upon “intelligent design,” allegedly in order to duck the newly radioactive “creation science” label?

In the summer of 1986, the 1984 book, *The Mystery of Life’s Origin* was still selling extremely well. Thus, in conjunction with a road trip to New York to attend the Annual Meeting of the American Scientific Affiliation, which was to begin Friday, August 8, at Houghton College, Thaxton was scheduled to be interviewed for the New York radio show, “The Talk of the Town” on Wednesday, August 6, for a broadcast to be aired a few days later (See **Appendix E**).

He brought with him copies of *Mystery* to give to friends at the ASA meeting, and copies of his paper, *Origin Science: New Rules, New Tools for the Origins Debate* mentioned earlier in order to get reactions from qualified readers in informal discussions. Note the timing of these events: They occurred four months before *Edwards v. Aguillard* was even argued at the U.S. Supreme Court on December 19, 1986, and almost a year before the Court’s verdict in *Edwards* on June 19, 1987.

As was said previously, *Origin Science: New Rules, New Tools for the Origins Debate* was a substantive discussion of intelligent cause. But were its concepts and terminology transmitted to *Pandas*? Yes they were. While *Pandas*’ in-house working title was still *Biology and Origins*, it went through several iterations. Yet upon *Pandas*’ publication three years later, the explicit arguments made in *Origin Science*, which he shared at the ’86 Annual Meeting of the ASA, were still the central intelligent design arguments made in the book:

- 1) The principles of information theory apply to the message text of the DNA.
- 2) It follows that one insight from molecular biology is particularly relevant: the fact that the highly complex DNA molecule is analogous to written language.
- 3) The linear sequence or order of the symbols records the information.
- 4) David Hume’s fundamental empirical insight in requiring “uniform experience,” as a basis for analogy applies; when we observe similar occurrences in the present to be uniformly followed by similar results, we may reliably project to past results of this class of events to understand their unobserved causes.
- 5) The Humean caveat therefore applies: in science, we reason from the observed effect (information) and infer an intelligent cause, but not a divine creator.

We have shown unequivocal evidence that at least a year prior to the Edwards v. Aguillard decision, Charles Thaxton was finalizing these specific arguments of the intelligent design concept in scientifically and philosophically informed language.

An Open Forum for Conjecture

To review, at the beginning of this account, we noted that the flawed narrative about *Pandas* at the heart of the *Kitzmiller* story had opened a forum for unrestrained conjecture about the book and, more importantly, about intelligent design itself. At this point, we pause once more to look at a further example

of how widespread misinformation fostered testy, even belligerent overreach about “the history and historical pedigree of the book to which students in Dover’s ninth grade biology class are referred, *Pandas*.”

Just one of many examples is found in *Saving Darwin: How to Be a Christian and Believe in Evolution*, in which Karl Giberson, in a discussion of *Kitzmiller v. Dover*, chides intelligent design advocates for their shallow scholarship:

By contrast, a Ph.D. takes, on average, about ten years of specialized study. Mastering a subtle tradition of learning is complex and not something to be understood by simply looking in the window of a research lab or spending a quiet evening curled up with *An Idiot’s Guide to the Scientific Method*. . . . If there were more historians of science in the ID movement, I think this would be better understood. The history of science is, in many ways, the history of the gradual and reluctant abandonment of ID as a helpful approach to understanding the world.³³

As an enduring example of the long history of men invoking God (or the angels) to explain anomalies in their theories or ideas, Giberson recounts Isaac Newton’s dilemma with his incomplete theory of universal gravitation. The fact that Newton attempted to resolve the theory’s gaps by postulating regular divine corrections of the celestial orbits to balance his calculations has become an iconic “God of the gaps” story. Giberson adds that historians of science understand the pitfalls of “God of the gaps” errors all too well, and then ventures, “which may be why this critically important group is so underrepresented in the ID Movement.”³⁴

But in fact, Thaxton frequently highlighted Newton’s “God of the gaps” mistake, revisiting a famous encounter occurring nearly a century after Newton’s work, when Napoleon asked the French mathematician and astronomer Laplace if he saw a place for God in his own calculations. “Laplace’s reputed answer,” says Thaxton, “has become the paradigm response for all similar questions about the role of God in science: ‘Sire, I have no need of that hypothesis.’”³⁵ This being a favorite example of his, Thaxton invoked the story of this encounter to make the very point Giberson does. But having done so, Thaxton went on to add an important qualification for the present day discussion. He noted that while the alternative to natural cause *in religion* is supernatural cause, the alternative to natural cause *in science* is intelligent cause (without respect to natural or supernatural realms). The brief exchange between Laplace and Napoleon appears in no fewer than four Thaxton papers listed in **Appendices B** and **C**, including the one he circulated at the 1986 Annual Meeting of the ASA.

Furthermore, although both are members of the ASA, Giberson apparently failed to notice Thaxton’s prominent role in *Pandas* and in the introduction of the term “intelligent design” into contemporary discourse in the 1980s. Apparently he also missed the debate between Thaxton and Norman Geisler that appeared in the ASA journal, *Perspectives in Science and the Christian Faith*, in which Thaxton argued with facility and depth the same frame-of-reference clarification given above.³⁶ (See **Appendix E**, “Thaxton Replies to Geisler.”) Giberson is also silent about Thaxton’s post-doctoral work in the history of science at Harvard. Thaxton is barely mentioned in Giberson’s book, and then merely as “one of the editors,” nor does he appear in Giberson’s index.

The Theory’s Name, “Intelligent Design,” Makes Its Debut

In the fall of 1986, Stephen Meyer arrived at Cambridge University, where he would study the history and philosophy of science under the tutelage of Dutch scholar, Harmke Kamminga, an authority on the history of origin of life studies. At about the same time, Charles’ discussions with others about the now crystallized epistemological approach and the most fitting terminology to represent it came to a conclusion, a conclusion soon to become widely known. The long “penciled in” name could now be written in ink. On my Thursday, September 25, 1986, “priority list,” I jotted the following note as we spoke: “Call CT – Intell. Design in B” (see **Appendix G**). My memory of this phone conversation with

Charles is still vivid; it brought to a conclusion the lengthy discussion in search of the right terminology to define and convey the concepts hammered out over the six previous years. As my notation attests, the agreement on the name *intelligent design* occurred almost three months before argument of *Edwards* was even undertaken by the Supreme Court, and nine months before the decision came down.

FTE's Working Notes and Proprietary Records

In the immediate wake of Thaxton's interactions at the August, 1986 ASA meeting, priority was given to preparing the Pandas manuscript (still under the working title, *Biology and Origins*) for the next step, a field test beginning in the fall of 1986 at a school district in the north Texas area. Some of FTE's dated (but unpublished) notes and records—calendars, correspondence, minutes of directors meetings and worksheets captioned "Priority List"—are exhibited herein, and constitute a reinforcing matrix of points that document a predictable sequence of events relating to this field test.

During this same period, FTE secured publishers' permissions for provisional use of a handful of charts and illustrations, and began a field test it had prearranged at a high school in north Texas. References to the completed photocopy work and delivery of the books to the school appear on my September 18, 1986, Priority List. Thirteen months later (October 30, 1987), the district's Assistant Superintendent for School Curriculum reported favorably in a letter to FTE concerning use of the text during the 1986-87 school year (see **Appendix F**). (This and all other sensitive exhibits are redacted to protect the anonymity of incidental participants.)

In addition, FTE had begun contacting publishers by November 1986, soliciting interest in publishing the manuscript while it was still provisionally titled *Biology and Origins*. This solicitation continued through the spring of 1987. The following excerpt is from a May 15, 1987 letter I wrote to the Regional Sales Manager of Addison-Wesley in Carrollton, Texas, soliciting interest in the draft:

At the same time, the book will not be subject to the major criticism of creation, that the supernatural lies outside of science, *because its central statement is that scientific evidence points to an intelligent cause, but that science is silent as to whether that intelligence is within or beyond the material universe. So the book is not appealing to the supernatural* (emphasis added).

Thus, long before field testing or market promotion were ever underway, the book's position was a settled matter. The time frame of this May 15, 1987 letter is consonant with the report I made to the FTE Board of Directors, reflected in the April 21, 1987 Minutes, a report on the status of our activity to contact textbook publishers (see **Appendix H**). This excerpt underscores the fact that FTE had written the *Biology and Origins* draft to reflect the well-articulated and consistently invoked limitation we have referred to throughout as 'the Humean caveat,' again, contravening Judge Jones's allegation quoted on the first page of this report that "the definition for creation science in early drafts is identical to the definition of ID."

Conclusion: What This Record Demonstrates

We began this account by quoting what Judge Jones referred to as "the strongest evidence supporting the finding of ID's creationist nature," evidence he styled as the "history and historical pedigree" of the textbook, *Of Pandas and People: the Central Question of Biological Origins*. Again:

The weight of the evidence clearly demonstrates, as noted, that the systemic change from "creation" to "intelligent design" occurred sometime in 1987, after the Supreme Court's important Edwards decision. This compelling evidence strongly supports Plaintiff's assertion that ID is creationism re-labeled.³⁷

Yet, as we have now seen, far from being “strong and compelling evidence” of “ID’s creationist nature,” Judge Jones’ primary premise is mistaken. It is a clear example of the fallacy of reasoning known as *post hoc ergo propter hoc* (after this, therefore because of this). It is false because it purports to explain something as the product of an event that did not precede it, but rather followed it, and that, by substantial periods of time. Though Judge Jones imagines that the ruling in *Edwards v. Aguillard* caused the authors and editors of *Pandas* to scurry around for another term to replace “creation science” or “creationism” for the position it was advancing, we have demonstrated, with documentation, the opposite.

We saw, moreover, that Judge Jones sought to bolster his major premise by skirting around the explicit language in *Pandas* that showed the authors and editor took seriously the empirical proscriptions against the supernatural in science and did so clearly and without equivocation. But Judge Jones disregarded the authors’ frequent claims that science is limited to the empirical domain and cannot tell us anything about the supernatural.

Far from attempting to dodge any legal ruling or promote religion, *Panda’s* adoption of “intelligent design” terminology stemmed from a sincere intent to respect the limits of scientific inquiry and from years of working with credentialed professionals in relevant scientific and philosophical disciplines, who held views both pro and con. We had a settled determination to use an empirically-based epistemology, plausibly extended into the past by the analogy of DNA to artifacts, codes, machines, and written language, and to articulate it competently. This is not the epistemology of the religious viewpoint of creationism, which begins with a sacred text rather than with evidence.

While we do not wish to belabor the point, we do want to emphasize the core error in the *Kitzmiller* decision. As stressed above, though the *Edwards* decision was irrelevant to *Pandas*, it was anything but irrelevant to Judge Jones’s decision. Judge Jones made the *Edwards* ruling the central marker, the fixed point, the anchor of his case against *Pandas*. And since he wagered that the term itself and case for intelligent design came after the *Edwards v. Aguillard* ruling, he got it exactly backwards. Intelligent design terminology was used not as some Trojan horse to sneak in a creationist core, but to make it clear that intelligent design, in the ways that matter in science, *is distinct from creationism*.

Though we are under no illusion that this correction to the record of *Pandas’s* development will incline ardent opponents of intelligent design to reconsider their position, we hope, and do believe that the reasonableness of this more thoroughgoing and documented picture will encourage and embolden the majority of those who are interested in this debate and who seek the truth no matter where it leads.

¹ *Kitzmiller v. Dover*, 400 F.Supp.2d 707, 722 (M.D. Pa. 2005).

² Dean H. Kenyon and P. William Davis, *Of Pandas and People: The Central Question of Biological Origins*, 2nd ed. (Dallas, TX: Haughton, 1993).

³ *Edwards v. Aguillard*, 482 U.S.

⁴ William A. Dembski and Jonathan Wells, *The Design of Life: Discovering Signs of Intelligence in Biological systems* (Dallas: Foundation for Thought and Ethics, 2008).

⁵ Casey Luskin, “What Law Students Are Learning About Intelligent Design,” *Nota Bene*, an online publication of Discovery Institute’s Center for Science and Culture, May 8, 2013. In this article, Luskin explores the information

offered law students at the University of Washington in *American Public School Law* by Kern Alexander and M. David Alexander, noting “I was surprised to see how little the authors actually knew about intelligent design.” He quotes a passage from pages 381-382 of the text, and quite reasonably concludes that “The authors must have learned everything they know about intelligent design from Judge Jones’s inaccurate ruling, rather than considering what ID proponents say about their theory.”

⁶ *Edwards v. Aguillard*, 482 U.S.

⁷ While it is true that FTE is religious at the level of organization (a prime argument in the ACLU’s case and also of Judge Jones’ decision), it had a secular purpose for the book, just as do hundreds of religious organizations that work for secular ends, such as providing for basic human needs through the operation of soup kitchens, the provision of medical care or of relief to victims of wars and natural disasters.

⁸ *Kitzmiller v. Dover*, 400 F.Supp.2d 707, 722 (M.D. Pa. 2005).

⁹ Thaxton had earned his Ph.D. in chemistry at Iowa State University. For two years he had been a postdoctoral Fellow in the history of science at Harvard University under Owen Gingerich, esteemed Professor of Astronomy and the History of Science. Thaxton also held a postdoctoral appointment for three years at the molecular biology laboratories at Brandeis University, where he worked on X-ray crystallography of muscle proteins. He held then and still holds memberships in the American Chemical Society and the American Association for the Advancement of Science, and he is a Fellow of both the American Scientific Affiliation and the American Institute of Chemists.

¹⁰ In addition to lectures before scientists and educators, he spoke at notable independent conferences and symposia. He gave lectures to local chapters of the American Chemical Society, engaged in consultations at the biennial Gordon Origin of Life conferences, and entered into consultations as well as lectures at Princeton University. His lecture at Princeton’s Woodrow Wilson International Center for Scholars was attended by a sizable number of Princeton faculty and their students. In view of the scientific breadth of his audience, Thaxton articulated a philosophy of science that was much broader than biology alone.

¹¹ Charles B. Thaxton, Walter L. Bradley, and Roger L. Olsen, *The Mystery of Life’s Origin: Reassessing Current Theories* (New York: Philosophical Library, 1984).

¹² Martin Eger, “Reply to Criticisms.” *Zygon Journal of Religion & Science* 23, no.3 (1988): 365. (Martin Eger was Professor Emeritus of Physics at City University of New York, College of Staten Island.)

¹³ Truth, Vol. 1.

¹⁴ Stephen C. Meyer, *Signature in the Cell* (New York: HarperCollins, 2009) p.34.

¹⁵ Charles B. Thaxton, *Origin Science: New Rules, New Tools for the Origins Debate* (a paper circulated at the Annual Meeting of the American Scientific Affiliation, Houghton College, Houghton, NY, Aug. 8-11, 1986. To be published).

¹⁶ *Kitzmiller v. Dover*, 400 F.Supp.2d 707, 722 (M.D.Pa.2005).

¹⁷ David DeWolf, John West, and Casey Luskin, ***Traipsing Into Evolution: Intelligent Design and the Kitzmiller Vs. Dover Decision*** (Seattle, WA: Discovery Institute, 2006), p. 23, quoting Charles Thaxton, Introduction to Teachers, in Dean H. Kenyon & P. William Davis, *Biology and Origins* 13 (Foundation for Thought and Ethics, Manuscript # I 1987).

¹⁸ Claude A. Villee, Eldra Pearl Solomon, and P. William Davis, *Biology*, 2nd ed. (Philadelphia: W.B. Saunders. 1989). (Originally titled *The World of Biology*, when published by McGraw-Hill).

¹⁹ *Edwards v. Aguillard* 482 U.S. at 592.

²⁰ *McLean v. Arkansas Bd. of Education* 529 F. Supp. 1255, 1267 (E.D. Ark. 1982).

²¹ *Of Pandas and People: The Central Question of Biological Origins* (Dallas, TX: Haughton, 1989), 126-127.

²² *DNA, Design, and the Origin of Life*, a paper delivered by Charles Thaxton at an international conference in Dallas, Texas, November 13-16, 1986, (to be published).

²³ When the Pew Forum issued its August 30, 2005, report titled "Public Divided on Origins of Life," it acknowledged that the terminology concerning evolution and creation is fuzzy and consequently defined the terms used in its poll and in the report. It defined "creationist" as *following the biblical account of creation*: "The latter group [those saying 'that humans and other living things have existed in their present form since the beginning of time'] is often called 'creationist' because this view is seen as consistent with a literal reading of the Bible's account of creation." [This is also consistent with one of the six defining criteria of creation science identified in the *McLean v. Arkansas* ruling, and has generally been the understanding of the term "creationism" and its derivative, "creation science," for most with a professional and/or legal interest in the subject since at least that time.] – "Public Divided on Origins of Life," A national survey from The Pew Forum on Religion and Public Life (August 30, 2005).

²⁴ The Humean caveat limits the conclusions we can draw in science. We must have uniform sensory experience to infer the causes of past effects. While not denying the existence of a divine creator, in science we nevertheless cannot infer such a creator since we lack any sensory means to detect the divine. Thus, reasoning from uniformly observed effects, we may infer intelligent cause but not a divine creator.

²⁵ See <http://www.google.com> where the Google search engine reported 145,000 hits for "moment of creation" eleven months following the Opinion in *Kitzmiller*, including a large number in technical literature (last accessed November 13, 2006).

²⁶ Robert Jastrow, *God and the Astronomers* (New York: Norton, 1978).

²⁷ David DeWolf, John West, Casey Luskin, and Jonathan Witt, *Traipsing Into Evolution* (Seattle: Discovery Institute, 2006), 22-23.

²⁸ *Kitzmiller v. Dover*, 400 F. Supp. 2d 707, 772 (M.C. Pa. 2005).

²⁹ *Ibid.*

³⁰ Introduction, *Of Pandas and People* 1st ed. (Dallas: Haughton, 1989), viii.

³¹ *DNA, Design, and the Origin of Life*, a paper delivered by Charles Thaxton at an international conference in Dallas, Texas, November 13-16, 1986, (to be published).

³² Brend-Olaf Koppers, *Information and the Origin of Life* (Cambridge, MA: MIT Press, 1990), 170-172.

³³ Karl W. Giberson, *Saving Darwin: How to Be A Christian and Believe in Evolution* (New York: Harper One. 2008), 158.

³⁴ *Ibid.*, p. 159.

³⁵Charles B. Thaxton, *Theism, Naturalism and the Origin of Life*, a paper delivered by Charles Thaxton at an international conference in Dallas, Texas, March 9, 1983, 11(to be published).

³⁶Charles B. Thaxton, "Thaxton Replies to Geisler," *Perspectives in Science and Christian Faith* 42 (December 1990), 248-249. (Permission granted by *Perspectives* editor, Arie Leegwater.)

³⁷*Kitzmiller v. Dover*, 400 F.Supp.2d 707, 722 (M.D. Pa. 2005).

APPENDIX C RECURRING THEMES					
THEMES BELOW APPEAR WHERE INDICATED UNDER DOCUMENTS AT RIGHT	Theism, Naturalism & the OOL 1983 The Mystery of Life's Origin 1984 DNA, Design and the OOL 1986 Origin Science: New Rules, New Tools 1986 In Pursuit of Intelligent Causes 1988				
	Arguments for, and acknowledgements that science is properly limited to the empirical domain	X	X	X	X
Examples of intelligent cause universally recognized from observable artifacts within the empirical domain	X	X	X	X	X
In science, inferences or arguments from the empirical domain to a supernatural Creator are inadmissible			X	X	X
Since we cannot directly test theories about unique past events against recurring phenomena, special or alternate means are required to study them		X	X	X	X
Molecular biology and information theory have developed methods that identify intelligent design	X	X	X	X	X
Specified complexity is the type of information produced by intelligence; just as with human codes and written language, any specified, complex functional information points to an intelligent source	X		X	X	X
Appreciation and due regard for the roles played by metaphysics in contested issues of science	X	X			